

AN ABSTRACT OF THE THESIS OF

Beverly A. Questad for the degree of Doctor of Philosophy in Education presented on May 6, 1992. Title: A Case Study of the Effects of Accelerated Learning Methodology on Reading Gains of Ten Middle School Students in Southwest Washington.

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Abstract approved: \_\_\_\_\_

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Learning disabled students in special education programs have not been demonstrating equal achievement gains in reading when compared to their non-handicapped peers.

The purpose of this study was to determine the effects of Accelerated Learning methods in teaching reading to ten learning disabled middle school students in southwest Washington.

Accelerated Learning (AL) was developed by Georgi Lozanov in Bulgaria in the 1960's. The method incorporated the fine arts, suggestion and visualization techniques with a

dynamic, active instructional presentation.

A multiple-case study design was conducted using ten learning disabled middle school students. Each case study used information gathered from school cumulative, confidential and special education files, parent, teacher and student interviews and observation. Their achievement in reading was measured using the Woodcock-Johnson Psycho-Educational Battery. Their reading gains, as measured after experience in their regular classes and after special education instruction using Englemann and Hanner's Direct Instruction methods, were similar to Educational District #112's learning disabled population's average gain of five months a year. Under Eclectic instruction the subjects' gains averaged nine and a half months per year and using AL instruction the gain was approximately fifteen and one half months a year.

No patterns emerged to substantiate an effect between instructional reading treatment and behavior or attendance. Pattern matching for grade point average was inconclusive due to paucity of data.

A Case Study of the Effects of  
Accelerated Learning Methodology on Reading Gains of  
Ten Middle School Students in Southwest Washington

by

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# A CASE STUDY OF THE EFFECTS OF ACCELERATED LEARNING METHODOLOGY ON READING GAINS OF TEN MIDDLE SCHOOL STUDENTS IN SOUTHWEST WASHINGTON

## I. INTRODUCTION

Approximately eleven per cent of the nation's total school population have been identified as handicapped and qualify for special education. Learning disabilities comprise the largest category of handicapped students and comprises over four percent of the total school population, which is approximately 40% of the handicapped population receiving special education (Lerner, 1985).

Public Law 92-142 mandates that all handicapped learners be educated to their maximum potential until age 22. The national goal is for increasingly higher academic achievement to ease the increasing demographic trend toward dependency on an increasingly smaller, viable, competitive workforce. There is increasing stress on public schools to significantly address the needs of the handicapped population.

Perhaps the most optimistic hope is that the learning

disabled (LD) handicapped student will significantly achieve and benefit from special educational services. By definition, a LD student has a normal or above learning potential, as measured by an I.Q. test, but functions significantly below grade level in the basic academic areas of reading, math and/or language arts as measured by standardized achievement batteries (McCarthy, 1992). The LD student is placed in special education classes to address different learning styles, rates and interests. Theoretically, the extra money, attention and specialized instruction should help to close the gap between the potential and realized achievement of the LD child.

An unanswered question remains: Has special education for learning disabled students been worth the extra educational expenditure?

During the 1989-1990 school year, Washington Educational Service District #112 (ESD #112) surveyed the efficacy of the special education programs within its jurisdiction on the basis of fall and spring achievement scores. This study was called Project Progress and the measurement

instrument was the Woodcock-Johnson Psycho-Educational Battery (W-J), which is documented as the most valid and reliable test of achievement for special education purposes and therefore the required test of the state (Tschirgi, 1991).

Ideally, the expected growth in achievement for LD students would be either a) higher than if they had stayed in their regular classroom without special help, or b) close to the normal average for peers, nine months (+0.9), due to the specialized instruction received.

The results of Project Progress indicated that the mean achievement gain of LD students in grades 5-8 was +.4958 (approximately 5 months) in reading and +.5232 in math for the academic year 1989-90 (Tschirgi, 1990). LD students may typically achieve half of the expected gains of the average student in any academic year in a special education program within the ESD #112 special education Cooperative. The learning disabled students get farther and farther behind their non-handicapped peers.

What may reduce the frustration of specialized instruction and minimal achievement for the LD student is

the identification of an instructional method that special education teachers could use that would empower LD students to experience consistent and significant achievement gains commensurate to their nonhandicapped peers. In effect, a method that would unlock the doors of their specific learning blocks.

A method called Accelerated Learning (also known as Suggestive-Accelerated Learning Techniques or SALT), has documented exceptionally high gains on such standardized tests as the Spache Informal Diagnostic Reading Inventory (Caskey, 1980) and the Stanford Diagnostic Reading Comprehension Test (Prichard and Taylor, 1980). SALT has received international attention for the success it has had in raising achievement scores in a short period of time. The Accelerated Learning methodology (AL) has been shown to promote significant success in many different settings, which included learning disabled students in both Eastern European bloc countries and experimental settings in the U.S.

AL is a unique instructional approach. Music, drama, fine arts, relaxation, visualization, positive suggestion and



physical exercise are combined with lesson preview, presentation, activities related to presentation and review to reinforce and accelerate the learning process.

### Purpose of Study

The purpose of this case study was to show the effects of Accelerated Learning as applied to the reading instruction of a group of ten learning disabled students in grades 5-8 who attended a rural middle school in southwest Washington.

The Woodcock-Johnson Psycho-Educational Battery (W-J), was used as the instrument to monitor achievement gain. The W-J measures reading comprehension, word identification and phonics ability. It also tests calculation and math application as well as spelling, punctuation, word usage and grammar.

This case study examines reading achievement gains which occurred through Direct Instruction, Eclectic Instruction and Accelerated Learning techniques.

### Rationale for Case Study Design

There are two major classifications for research -

quantitative and qualitative methodology. This research was conducted as a qualitative study due to the exploratory nature of the research itself and its inherent limitations for quantitative adaptation. Kidder (1981b), using criteria postulated by D.T. Campbell for evaluating research designs, compared the logic of the internal, external and construct validity of both quantitative and qualitative research and found them essentially the same. Dabbs (1982) concurred stating, "Qualitative and quantitative are not distinct." Dabbs differentiates between qualitative and quantitative investigative strategies by explaining that qualitative research "refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and descriptions of things..." while "...qualitative research refers to counts and measures of things."

The type of qualitative methodology used for this research was the case study. The case study method of scientific inquiry is modeled after the case history, originally developed in medical research to document disease etiology. Case studies have been used in clinical research in

psychiatry and psychology, culminating in work by Sigmund Freud and Jean Piaget. (Bolgar, 1965).

The case study approach "investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used." (Yin, 1989, p. 22). The empirical topic of this research investigated the effects of Accelerated Learning instruction upon ten learning disabled middle school students in relationship to their earlier academic experiences. A specified procedure, called The Case Study Protocol (Appendix), was followed. Specified procedures, such as administrative permission, personal interviews and participant review, were used and implemented in this case study to address construct, internal and external validity and reliability.

These terms, construct, internal and external validity and reliability, traditionally understood in reference to quantitative studies, are redefined according to Yin (1989, 40-41) in terms of the case study as follows:

*Construct validity:* establishing correct operational measures for concepts being studied;

*Internal validity:* (for explanatory or causal studies only, and

not for descriptive or exploratory studies): establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships;

*External validity:* establishing the domain to which a study's findings can be generalized; and

*Reliability:* demonstrating that the operations of a study--such as the data collection procedures--can be repeated, with the same results.

Generalizations generated from this research were directed toward theoretical propositions, tendencies rather than universals, and not to populations or universes. "In this sense, the case study, like the experiment, does not represent a 'sample' and the investigator's goal is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization)." (Yin, 1989, p.21).

To further explain the use of the case study approach for this research, other authors (Bolgat, 1965, Yin, 1989, Dabbs, 1982 and Kidder, 1981) concur that while case study research does not necessarily provide experimental hypothesis validation, it may provide avenues for further investigation. In this sense the scientific explorative value of the case study involves the development of hunches or hypotheses. Howard (1985) writes that another purpose in

case study research is the identification of behavior patterns and possible causal relationships.

Smith (Jaeger, p. 255, 1988) defines a case study as "the study of a bounded system. The crux of the definition is having some conception of the unity or totality of a system with some kind of outlines or boundaries." He exemplifies, as does this study, a bounded system as a child with learning disabilities in that the child has a particular problem and there are observable behaviors of this problem. He further emphasizes the case study's importance in "finding out how systems work over time." (Jaeger, 1988).

Kamil, et. al. (1985, p.7) defines a case study similar to the one in this research in that he sees it more as a case history in that it typically observes "an individual or group for an extended period of time and, if necessary, to depend on other records for supporting or supplementary data." The value of this type of research is that it allows an in-depth study of the specific implementations and results of specific instructional interventions.

The limitations inherent in this study precluded using

quantitative data. Considerations such as availability and number of subjects, time constraints and available staff were problematical. The learning disabled middle school students available for this study were ten LD students enrolled in the special education classroom of the researcher. Because of the nature of the Woodcock-Johnson Psycho-Educational Battery, a great deal of time is required to administer and hand-score the test instrument. Ten subjects required approximately 60 hours for test administration, handscoring and interpretation for both pre and post-testing.

The researcher, from funds provided by the Rachel Royston Foundation, took an intensive seven day, sixty hour training course in Lozanov's Accelerated Learning techniques at Iowa State University during the summer of 1990 from Dr. Wm. Connelly.

Due to the critical importance of discovering a method of instruction effective in teaching reading to learning disabled students at a competitive rate with regular students, and because of the unique approach used in integrating the fine

arts in instructional presentation as well as the exceptionally large gains documented from other studies on AL, this research used a case study research design.

## II. LITERATURE REVIEW

### Origins of Accelerated Learning

The Accelerated Learning methodology has its origins in the work of Dr. Georgi Lozanov, a Bulgarian physician and psychotherapist. Lozanov began working in the 1940's with hypnotic, extra-sensory perception and yogic techniques. Through his studies and practices on how information is acquired parapsychically, he researched the role suggestion may have on cognition. By combining principles, techniques and methods of Indian yogis who have developed extensive memorization capacities; psychics documented as having telepathic abilities; his own medical experiences using hypnosis rather than anesthetics for major surgery; and his knowledge of psychiatry, Lozanov formed a new pedagogy he coined "Suggestology". Lozanov defined this as "the science of the art of liberating and stimulating the personality, both under guidance and alone." (Lozanov, 1978).

In the 1960's Lozanov founded the Suggestology Research Institute in Sofia, Bulgaria, where the educational method, Suggestopedia, evolved. Lozanov defines this term as



"...Suggestology applied in the process of education." (Lozanov, 1978).

The premise of Suggestopedia is that people do not use their full cognitive capabilities because of society's and history's preconceived ideas about what is possible (Lozanov, 1978). Through Suggestopedic techniques Lozanov works to free, or de-suggest, students' minds from their preconceived ideas regarding their own mental limitations. He advocates the mind has greater capacities than are realized. He asserts that through suggestive techniques, the memory and whole personality, inclusive of its interests and perceptions, creativity and moral development are stimulated.

Earl Stevick (1983) discusses 12 points which describe, in general, Lozanov's methodology. Stevick's points are outlined and paraphrased as follows:

- A. Suggestopedic Assumption Base
  - 1. learning involves unconscious functions of learner
  - 2. the rate of learning can be accelerated
  - 3. learning is negatively impacted by the limitations and expectations society and history have taught
- B. Suggestopedic Strategy
  - 1. removing the lack of harmony in the

- learner
  - 2. removing inhibiting tensions of the learner
  - 3. removing limiting expectations of the learner
- C. Suggestopedic Tools
  - 1. psychology
  - 2. art (drama, music, visual arts)
  - 3. pedagogy
- D. Guidelines for Implementation and Criteria for Success
  - 1. principles of joy and easiness
  - 2. principle of unity of conscious and unconscious
  - 3. principle of suggestive interaction

Many of these methods are already used by teachers, including Stevick (1983), and are not referred to as Suggestopedic techniques. However, what makes the Suggestopedic method unique is its means of implementation which involves visualization, relaxation, intonation, artistic presentation as well as sessions with music in conjunction with lesson presentation.

Lozanov's work in Suggestopedia began in the 1960's and concentrated in foreign language instruction. The first research involving experimental (Suggestopedic) and control groups was conducted in 1965 (Lozanov, 1978). Three experimental and three control groups, with about 12 students in each, were instructed by three trained instructors, each of whom took a control and experimental group. After eight days

the experimental group showed a difference of 21.5% more memorized words. Electroencephalograms were used to monitor two of the students in the experimental session and the results confirmed that the students remained in an indisputable waking state throughout the sessions. This documentation was used to dissuade comparison of the Suggestopedic method to hypnosis.

As Lozanov began his method of Suggestology in teaching foreign languages with adults who had volunteered for the classes, the first use of this approach in the United States also occurred in the context of teaching a foreign language. Marina Kurkov adapted Suggestopedia to teaching beginning Russian at Cleveland State University in 1971 (Kurkov, 1977). She had 14 students in her experimental (Suggestopedic) group and 19 in her control (conventional) group. The experimental group's achievement, as measured by the MLA Cooperative Foreign Language Test, was twice as high as the control group. However, Kurkov did not achieve the high success rate Lozanov had reported and was unable to explicitly follow his methodology due to limitations at CSU.

The problem in replicating Lozanov's method outside of the Suggestology Research Institute and its government-funded research classrooms is that it is a complex, sensitive approach to teaching requiring specific environmental accommodations. In each classroom in Bulgaria Lozanov has large recliners for each student, video equipment, a stage production area and a high quality stereo system. Lozanov has also been able to dictate the schedule of classroom instruction: four hours a day, six days a week, for one subject.

In an attempt to develop and research applications of Lozanov's method in the United States, the Society of Suggestive-Accelerative Learning and Teaching was founded in 1976 by Dr. Donald Schuster, professor of psychology at Iowa State University. An experimental teacher-training program in Suggestopedia was also begun at ISU congruent with a project implemented in the Des Moines School District.

Although Lozanov's Suggestopedic method has been identified in the west as Superlearning, Wholistic Learning, Hyperlearning, Optimalearning, and The Lozanov Learning Method, he is associated with and supports only Accelerated

Learning, as promulgated by Dr. Schuster, psychology professor, Iowa State University. Accelerated Learning, the name announced and used since the Society for Suggestive-Accelerative Learning Techniques sponsored annual Accelerated Learning Conference in Seattle in April of 1991, has been referred to in earlier years as Suggestive-Accelerative Learning Techniques or SALT.

In an overview of the 40 studies published by the Society for Accelerative Learning and Teaching in its journal: The Journal of The Society for Accelerative Learning and Teaching from the years 1976-1986, 14 studies were found to contain sufficient description and statistics to meet standards for reliability and internal validity (Moon, 1986) on the application of Accelerated Learning (AL) in American classrooms.

The findings from Moon's literature overview indicated that the overall performance of students taught using AL methodology was three-quarters of a standard deviation higher than students taught in control groups. No discussion of teaching techniques used in the control groups was given.

A study contrasting AL techniques with unspecified conventional approaches to reading in remedial classrooms was implemented in the 1970's by Allyn Prichard of Iowa State University (Caskey, 1980). Within 18 weeks of instruction, of which two were devoted to pre and posttesting, the learning disabled readers, N=8, who received SALT instruction made an average gain of 20 months on both the oral and silent reading sections of the Spache Informal Diagnostic Reading Inventory. The remedial readers, N=40, made an average gain of 15 months.

Another study included 20 teachers (Schuster and Prichard, 1978) who taught first through tenth grade classes. Ten teachers were given 120 hours of training in AL in one summer. The students came from the same socio-economic levels in the same central Iowa area. The results showed that nine of the ten experimental classes produced significantly higher scores on achievement tests than the control groups (whose specific method of instruction was not identified).

A possible jeopardizing factor in this study involved a measurement instrument developed by the project authors.

Their test was neither normed nor standardized. While it may have reflected the aims and objectives intrinsically inherent in the AL instruction of the respective study, it was neither explained nor included in the appendix of the study.

Prichard and Taylor conducted a study in Huntley Hills Elementary School in Georgia (Prichard and Taylor, 1981). The methodology for remedial reading instruction followed AL specifications. The Stanford Diagnostic Reading Comprehension subtest score was the dependent variable. No control groups were used. The average gain over one year ranged from approximately eleven months for second graders to 45 months for sixth graders. Prichard and Taylor noted that the AL techniques worked best for those students in their study who had an I.Q. above 89 and some reading skills and were in the fourth grade or higher.

Nelson used very small experimental and control populations. He compared the achievement of learning disabled children, ranging from six to eight years of age (cited in Schuster and Gritton, 1986). Three were in an AL classroom and two in control ("conventional") classrooms. Nelson

reported significantly higher achievement for the AL group.

Sylvia Ramirez, (1986), conducted a study to determine the efficacy of the AL techniques in ESL instruction. Ramirez undertook AL training, and then developed her research to determine if the AL method would produce measurable differences in the rate of English vocabulary acquisition and comprehension of Spanish dominant Chicano third graders. Fifty-one students were divided into two experimental groups and 24 students were in the control group. The control method was not identified. The results indicated that there was no significant difference between the two experimental groups. However, the experimental groups' achievement scores were significantly higher than the control group's.

The most comprehensive study on the efficacy of AL was conducted in 1983 by the Paradise School District (Schuster and Gritton, 1986). This study involved 32 teachers and over 1000 students. An independent evaluation firm was in charge of evaluating the results of the study. The firm reported that 20 teachers used the AL method and 12 used unspecified conventional methods. The students were in grades 2-6 and



included classrooms from all subject areas which included special classes for the gifted and learning disabled students. The California Achievement Test was used for pre and posttesting. The evaluation firm reported that the AL groups made significantly higher achievement gains than the conventionally taught students.

A research study testing AL claims without training its teachers in AL methodology was conducted by Wagner and Tilney (1983). They attempted to replicate Lozanov's claims that through Suggestopedia 1000 new words could be memorized in a day with virtually no effort on the part of the student. In their experiment the researchers used tapes from Superlearning, Inc. for the music and suggestive program components of the Suggestopedic method. The experiment lasted five weeks with the students coming for instruction a total of seven times. The results concluded that the traditionally taught (no program specified) group had means higher than the experimental group.

The problems with the Tilney study are instructive. Many facets of suggestopedic instruction were overlooked or

significantly adapted. Tapes, not trained instructors, were used. Furthermore, students came for seven classes during different scheduled hour, to accommodate the researchers' schedules, within a five week period. Both Lozanov and AL methodology not only require trained teachers, they also prescribe an immersion type of curriculum that meets on a daily basis.

#### Critique of Suggestopedic and Accelerated Learning Research Studies

Investigation of Lozanov's claims of accelerated learning are difficult to assess. Soviet and Soviet bloc transmittal of research results have traditionally been done through a mentorship relationship. If a researcher wants to know more about a particular study, s/he becomes involved in it. Research results are not openly printed (Gregg, 1989). Many aspects of Lozanov's methodology are therefore lacking in the literature. Questions regarding the demographics of his experimental and control sample populations are not thoroughly answered. What were the subjects' I.Q.'s? What were their ages? Why were they involved in this research and

how were they chosen? Was the foreign language instruction a part of intelligence agent training? Were there any rewards or motivations for exceptional achievement and if so what were they?

Because Lozanov's first clinics using Suggestopedia involved teaching foreign languages to a large adult population restricted in its out-of-country travel, it could be conjectured that these students had been screened for foreign language aptitude and perhaps pressured for quick success as part of a Soviet intelligence agency offensive during the Cold War.

During a speech at an Accelerated Learning conference in Seattle (1991), Lozanov evaded all questions related to the specifics of his work with the statement that his government has considered his work "secret" and only what he has published (and had reviewed by his government) is for public information.

The mystery of sample selection, for whatever reason, reinforces the possibility of experimenter selection bias and therefore jeopardizes the validity of the Bulgarian results both internally and externally.

Research done in the United States, the inhibiting factor in replicating Lozanov's method has been to supply an equivalent treatment environment. Lozanov received governmental support to provide luxurious classroom accommodations with large recliners for each student and a sophisticated sound system and stage for dramatic exhibitions. Lozanov was also given freedom to schedule maximum hours for his treatment six days a week.

AL research studies also suffer from factors related to sampling selection. Many studies used so few subjects that probability factors could not be generated.

Both the Lozanov and AL studies used unidentified control treatments. How can the efficacy of AL methodology be adequately judged without comparison to specifically described alternate treatments? Were the control treatments conducted by uninspired teachers? What was the type and quality of materials used for control instruction?

No baseline of pre-experiment intervention achievement gain for the subject sample was cited. What is the expected achievement gain per year for foreign language students or

learning disabled reading students on a national or regional basis? If those statistics were known, both the treatment and control groups could be more fairly compared and analyzed. Perhaps the control group subjects in some of the studies were coincidentally scoring significantly below their counter-parts in the rest of their region. This would further skew evaluation of the treatment groups.

The instruments used to test achievement varied from study to study. Most tests were group administered, which is a disadvantage to the learning disabled student who may have difficulties staying on task, following directions and/or marking an answer sheet (Tschirgi, 1990). Furthermore, none of the instruments used to document achievement in each of the studies reviewed for this research had the highest validity or reliability ranking possible (Buros, 1985). The Woodcock-Johnson Psycho-Educational Battery, mandated by the state of Washington because of its validity and reliability ratings (Buros, 1985), as well as the fact that it requires individualized administration which facilitates problems testing learning disabled students, was not used in any of the

studies.

Also, for both the Bulgarian and AL studies, demographic information identifying the sample populations is minimal and raises the question of selection bias.

### III. METHODOLOGY

#### Problem Statement

The purpose of these case studies was is to show the effects of teaching reading using Accelerated Learning methodology with ten learning disabled middle school students.

The effects to be studied include: 1) behavior: personal growth and study habits as reported on report cards and observation; 2) achievement: gains in reading as measured by the Woodcock-Johnson Psycho-Educational Battery during Direct Instruction, Eclectic and Accelerated Learning special education interventions and in comparison to the average reading gain of all learning disabled students receiving special education reading instruction within the jurisdiction of Educational Service District #112 in southwest Washington 3) attendance: percentage of days present as documented in district attendance files and respective cumulative records; 4) academic: quarterly and yearly g.p.a.; 5) Student attitudes: information on effective instructional strategies in reading as reported from interviews of the 10 cases

### Questions for Each Case Study

1. Under which instructional program did the student achieve the highest degree of positive study habits and personal growth?
2. Under which kind of instructional program, Regular or special education (specifically Direct Instruction, Eclectic or Accelerated Learning) did the student experience the highest gains in reading?
3. Under which kind of instructional program did the student have the highest rate of attendance?
4. Were there differences between the g.p.a. records during any of the instructional interventions?
5. What factors did the student attribute as major contributions for reading success?

### Questions for Cross-Case Analysis

1. Under which instructional intervention did students exhibit the most positive student behavior attributes?
2. Under which instructional intervention, Regular curriculum or special education Program, (specifically Direct



Instruction, Eclectic or Accelerated Learning) did the students have the highest average achievement in reading?

3. Under which instructional intervention did students exhibit the highest rate of attendance?

4. Under which instructional intervention did students have the highest g.p.a.?

5. What were the most common major factors students gave for achievement under the instructional program they gained the most?

### Units of Analysis

Learning disabled (LD) students who received AL instruction during the 1990-91 academic year formed an ad hoc sample of convenience because they were the complete population of LD students available to the experimenter. They consisted of the total district LD special education population of 5-8 graders who received special education reading instruction.

Additional data include demographic items of gender, I.Q., age and grade at instruction, ethnic-economic grouping,

as well as years in respective educational programs.

### Description of case study participants

Table 1 delineates the demographic data on each case study participant. Averages are noted in the last column (Av).

Table 1. Demographic Case Study Data

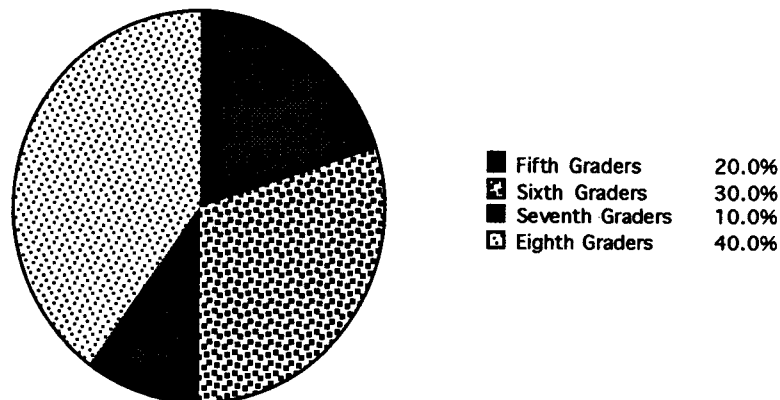
Data	CS#1	CS#2	CS#3	CS#4	CS#5	CS#6	CS#7	CS#8	CS#9	CS#10	Av
<b>DEMOGRAPHICS</b>											
Gender	fem.	fem.	male	male	male	male	male	male	male	male	
I.Q.	93	91	92	86	81	83	83	91	91	92	88.3
Age at AL instr.	13-14	14-15	12-13	12-13	14	11-12	13	11	11-12	12-13	12.65
Grade at AL instr.	8	8	8	8	7	6	6	5	5	6	6.7
Ethnic-Economic	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC

Of the ten students studied, eight were boys. All had average I.Q.'s within a 12 point range and all were of a white, middle class (W-MC) ethnic-economic background. Their average age was 12.65, spanning 11-15 during AL treatment.

Table 2 illustrates the subjects' grade distribution. Two students were in fifth grade, three in sixth, one in seventh and four in eighth.

All of the students were Caucasian from middle class homes in a rural area of southwest Washington.

Table 2. Grade Distribution of AL Instructed



The population in the school district is relatively stable. There is a strong Apostolic Lutheran community which maintains a traditional way of life, forgoing television and radio. Swearing overheard at school can result in suspension.

Teacher satisfaction and comfort is so high that in the last ten years not one staff member has voluntarily left the middle school. (Gregg, 1991).

The current middle school student enrollment is 341. There are seventeen teachers, a ratio of one teacher to twenty students. The district is well supported by the community.

All ten of the case study participants qualified as LD within the last seven years. Table 3 lists the number of years each case participated in regular and special education.

Table 3 shows that the average number of years the students participated in the regular education program exclusively (Chapter One services are considered part of the regular curriculum) and not in special education was approximately 4 years (4.22) with a range of zero to eight years. The average number of years the students spent in special education for reading was three years and a little over 5 months (3.52) with a range of one to eight academic years.

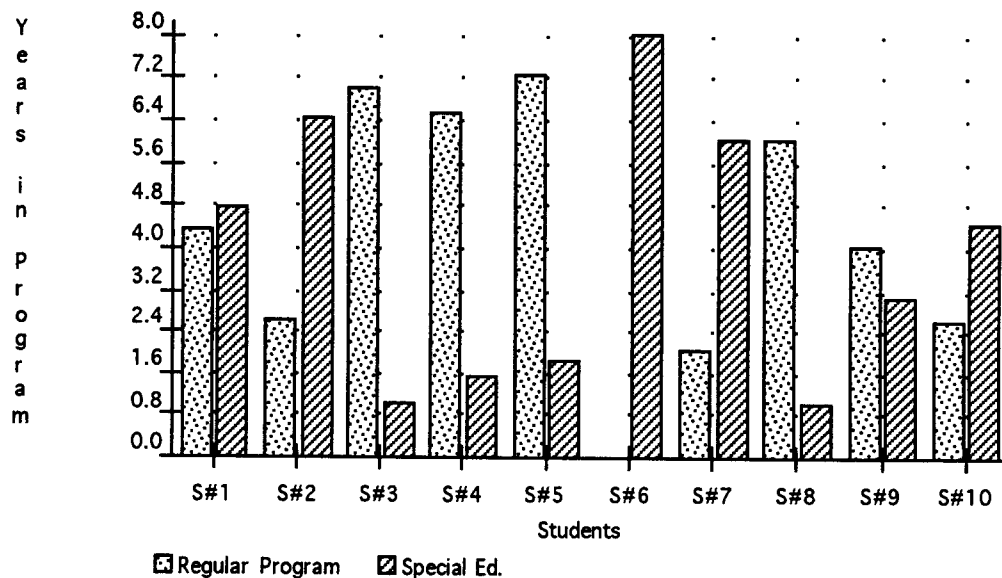
Table 3. Years in Regular and Special Education

	CS#1	CS#2	CS#3	CS#4	CS#5	CS#6	CS#7	CS#8	CS#9	CS#10
<b>YEARS IN PROGRAM</b>										
<b>Regular Education</b>										
Reg. Curriculum	4.3	2.6	7	6.5	2.2	0	2	5	2	unknown
Chapt 1 or RAP/LAP	0	0	0	0	5	0	0	1	2	unknown
Total Reg. Ed.	4.3	2.6	7	6.5	7.2	0	2	6	4	2.6
<b>Special Education</b>										
DI & Stevenson	1.7	3.4	0	0	4	4	0	0	0	unknown
Eclectic	2	2	0	.5	0.8	1	1	0	0	1
Accelerated Learning	1	1	1	1	1	1	1	1	1	1
Unknown						2	4			2.4
Total Spec. Ed	4.7	6.4	1	1.5	1.8	8	6	1	3	4.4

Table 4 illustrates the ratio of the number of years in regular education to the number of years in special education

reading for each of the case participants. There is a wide range of differences.

Table 4. Comparing Regular and Special Education Participation



### Operational definition of learning disabled

To qualify as LD in the state of Washington, a student must be administered an IQ test, the Wechsler Intelligence Scale for Children-Revised (WISC-R), and an academic achievement test, The Woodcock-Johnson Psycho-Educational Battery (W-J). A formula is used that computes whether the student has a significant difference between academic

potential (as derived from the WISC-R) and actual achievement (as derived from the W-J). Most often a student who qualifies as LD functions at least two years below grade level. A full definition of LD and qualifying requirements in the state of Washington are given in Appendix A.

For each case study the gain in reading achievement over the academic year is measured by the Woodcock-Johnson Psycho-Educational Battery. Each student in the study was administered this test in both the fall and spring of each school year while in special education.

Gains can be measured at least four ways: fall to fall, spring to spring, fall to spring or from start of intervention to end. This study uses gains calculated from start to finish of instructional intervention as this facilitates uniform calculations as not all students are in program for the same duration.

#### *Measurement of gain computational explanation*

The gains were measured in the study from start to end of treatment to accommodate comparison to gains made under the regular education curriculum as well as to adjust

to different instructional intervention durations. In order to compute a regular education gain each subject's initial Woodcock-Johnson score was divided by the number of academic years the student had been in school.

### Instrumentation

The Woodcock-Johnson Psycho-Educational Battery (W-J) is the standardized achievement test required by the state of Washington for purposes of documenting the academic achievement levels of learning disabled students. The Educational Service District #112, which supervises the target middle school, requires administration of the W-J each fall and spring in order to track student achievement over the school year as well as over the summer.

The W-J is the required test in Washington State to document learning disabled student achievement levels for the following reasons:

1. The W-J is individually administered. Student attention is continually reinforced through constant interaction with a trained tester.

2. The reading response portion of the test require oral responses. The ability to follow directions is facilitated through the interaction with the tester.

3. The W-J has high reliability. The W-J's reliability factors range from .89 to .96, indicating high test score stability (Buros Ninth Mental Measurement Yearbook, 1985).

4. The W-J also has significantly high validity. It has significant correlations, in the .70 to .90 range, between the existing criteria of achievement tests like the Peabody Individual Achievement Test and Wide Range Achievement Test, thereby giving it concurrent validity (Buros Ninth Mental Measurement Yearbook, 1985).

### Treatments

#### Direct Instruction and Stevenson Program: Treatment for Academic Years 1982-1988 Grades 1-4 or 5

The Direct Instruction treatment in the target school district was carried out by a teacher with similar experience background as the researcher who used the Eclectic and AL reading methods. The DI teacher has also



received extensive training in the use of DI.

There are two versions of DI used in the target school. The first, the precursor of the second, came in two programs called Decoding and Comprehension. The second, called Reading Mastery was an inclusive program, covering similar objectives but emphasizing more fictional reading. Both programs provide workbooks at different ability levels, beginning with basic letter identification and sounds and ending with more advanced reading vocabulary and concepts. They both involve placement testing, oral and written student requirements and immediate instructor feedback of all responses in fast-paced, script-directed 40 minute lesson segments. Reinforcement points are awarded for correct answers. A correction procedure is run for incorrect or no responses. Group points are given for on-task behaviors.

The decoding part of the lessons emphasize word families and letter/sound patterns as well as reading material using strictly controlled vocabulary based on decoding skills developed from building on word families

and letter patterns. Oral reading practice and timed oral reading tests are a part of each lesson.

The comprehension part emphasizes memorization skills, informational data, organization and sequence through teacher-student group response and backward chain memorization.

These direct instruction programs are published by Science Research Associates, Inc. and created by Siegfried Englemann with associates. The DI teacher used the Decoding and Comprehension books until 1987. Since then she's used the Reading Mastery materials. Therefore, Case Studies #1 and #2 were involved with the first program and Case Studies #7 and #9 were involved with both.

Examples of DI are in Appendix G.

Eclectic Instruction:  
Treatment for Academic Years 1988-90

The learning disabled students in special education reading classes at the target middle school involved the same instructor as in the experimental but different educational materials, methods, organization and strategies

were used.

The daily classroom routine began with 10-15 minutes of silent reading. Then vocabulary was presented, sometimes with interactive games on the board. Oral reading then ensued. Students earned points throughout the class period. The reading materials used came from four sources and are listed and explained as follows.

1. Interactive Reading Program by Barnell-Loft uses the Directed Interactive Reading-Language Experience Method (DIR-LE).

The materials used in this program are high interest, low level books that were developed for the special education student having difficulty reading at grade level. The students were grouped according to reading ability. The lowest group, averaging at second grade reading ability began in the second grade book. The stories were short interesting and ended with vocabulary and comprehension questions. The students and researcher played a game involving following along while each read and catching each others' errors while reading aloud to gain points. The

students were observed and documented by a Master Teacher to be on task 100% of the time in enthusiastic focus.

2. Passages emphasizes value clarification and comprehension.

Passages is a high interest, low level reading program designed for special education students. It is adaptable to TELSQA (Tama and Martinez, 1988) because the text has chapters and questions for discussion and answering.

TELSQA, a strategy for independent study, requires title identification, examination of paragraphs, looking for difficult words, self-questioning after reading each respective paragraph and answering questions at the end of each chapter.

3. Both the eighth grade history and seventh grade social studies textbooks were introduced using Directed Reading and Thinking Activities, TELSQA, DIR-LE and Cooperative Learning methodologies.

The researcher attempted to apply the techniques associated with the Interactive Reading and Caught Reading programs to reading instruction using the students' regular

science and history books. This idea was not successful because the students refused to use their regular texts because they said they were too difficult.

#### 4. The Outsiders, DIR-LE and Language Experience

The students read together aloud The Outsiders (Hinton, 1967) answering questions on each chapter. The DIR-LE strategy was adapted to this activity. They also wrote their own book using the language experience strategy which involves student oral generation of the story while teacher takes it down in dictation and then types it up. They also drew pictures for each page.

#### B. Organization and Strategy

The organization and strategy of the 1989-90 plan was influenced by study of Hilda Taba. As noted on the chart entitled "Organization of Learning Activities", each quarter had a motivational focus or theme, value focus and reading purpose.

The first quarter's motivational focus, as emphasized in the movie shown, "Stand and Deliver" was "Achievement is the Great Equalizer". The reading purpose, emphasized in

is the Great Equalizer". The reading purpose, emphasized in the reading material, was for communication and interaction with the author. The value focus, drawing from the motivational focus, was self respect.

The second quarter the motivational focus, highlighted by the movie, "The Boy Who Could Fly" was "If there's a will there's a way". The value focus was perseverance and the reading purpose, emphasized in the reading materials, was reading for cognitive development.

The third quarter the motivational focus was dramatized through the movie "Willow", and was characterized in the phrase "Nothing can stop us". The value focus was cooperation and the reading purpose, using textbooks, was reading for information.

The last quarter's motivational focus was from the movie "The Outsiders" and was "We make our own choices". The value focus was self-sufficiency and independence. The reading purpose, gained from the reading materials, was reading for pleasure and self-awareness.

Throughout the academic year the emphasis was on

Accelerated Learning  
Treatment for Academic Year 1990-1991

The methodology of AL involved 8 basic steps that must be used with each class presentation. The strategies, activities, and instructional program(s) of the curriculum are the decision of the classroom teacher. The following outline incorporates the basic AL steps with instructional content used by the researcher in the 1990-91 treatment of Hockinson Middle School learning disabled students.

The format for Accelerated Learning is as follows:

1. Visualization to mood music

The students begin the class with a positive you-can-do-it inspirational message related to the current reading selection or a mood visualization designed to set the scene of the current story. New Age, Debussy, ocean sounds, or other relaxing tape is used. The room lights are off, only filtered light from the window illuminates the room.

2. Passive concert

While baroque music is played, the vocabulary words to

be taught with this unit are presented. Each word is sounded out while written on the board. A succinct definition is listed after each word and verbally announced. The presentation is done in tune with the music. The term "surfing with the music" is used by AL trainers to describe this technique. When the music stops, the teacher stops. When the music speeds up, gets loud or becomes soft, the teacher also does.

After five to ten words are presented, the researcher reviews the unit briefly.

Students are expected to simply relax throughout this presentation.

### 3. Preview

The music is turned down and off. As the lights are turned on, the teacher gives a very brief outline of what will be learned and what will occur during the lesson.

### 4. Active Concert

Words are again presented, but this time with drama and without music. The teacher uses mime, drama, humor and student involvement.



## 5. Activity

On the first day of a unit students are involved with a schemata task. One such activity involves picking cards from a "hat". Each card has an aspect of the story setting. There may be two to three aspects. In this way the class is divided into two or three groups researching the same aspects together (cooperative learning experience). They go to the library and find books and pick out suitable pictures of their aspects. They regroup in the classroom and show their respective pictures, explaining them to the group. These pictures are photocopied for group use the following day. Each group will make a poster of their respective aspect to hang in the room.

Other days students may be involved with vocabulary games, story reading, story dramatization, story structure, inquiry discussions, puzzles or eating food related to the story.

The bulk of instructional time is in the activity segment of the lesson.

## 6. Review

The classroom lights go off and the same baroque music played during the passive concert is played. The teacher goes through the words and definitions presented earlier and reviews what has been learned in the unit so far and what activities have occurred. This takes 2-3 minutes.

## 7. Calming

While the lights stay off the visualization music that began the class is played. Students clean up the room and put away their supplies. They are dismissed from class when this is complete.

Accelerated Learning, taught using this basic format, lends itself to many types of learning techniques and strategies. Experiences tried successfully with AL instruction and used in this study's treatment include: games, cooperative learning, computer instruction, discovery, directed-interactive teaching, learning experience, meditation, yoga, physical activities like karate, races, and manipulations, construction, drama, art and whole language experiences.

## IV. CASE STUDIES

### Case Study #1: Maturity

#### Description

Subject 1 is a rather tall, curly-headed brunette who is straightforward, friendly and adeptly conversant with her peers as well as adults. She qualified for special education services as learning disabled in fourth grade.

However, despite her difficulties with academics, she was one of eight nominees, in an eighth grade graduating class of 124, for her school district's most prestigious recognition, the Wally Sarkinen History Prize. This award is presented to the graduating eighth grader for inspirational scholarship as exemplified in such characteristics as integrity, enthusiasm, sincerity, honor, courage and intelligence (Gregg, 1991).

For the purposes of this research, her identification will be known as Maturity.

#### Regular Curriculum: Kindergarten through Mid-Fourth Grade

Maturity attended school in the same school district since kindergarten. While her personal growth and work habit

report card notations were consistently high, academic weaknesses were obvious. In the first grade her teacher recommended repetition and special education.

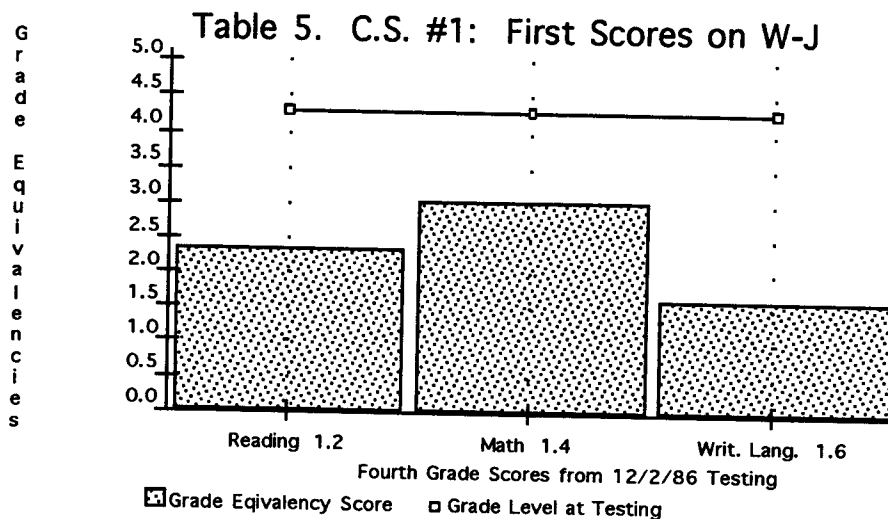
Maturity's mother was very concerned. Her two older children had also been diagnosed as LD, but special education services had made little impact on improving their skills.

Therefore, Maturity's parents refused the recommendation for either retention or special education. Instead, they took Maturity to a private psychologist for full testing and an optometrist for vision training. The psychologist reported that Maturity had a high average I.Q. However, he noted that she did show some anxiety in her failure to succeed at academic work.

The vision training was, at her parents' report, a six month waste of time and money.

By the middle of fourth grade, Maturity's success in basic skills continued to noticeably lag behind her classmates'. Her parents finally decided to resort to special education placement. Her first scores on the Woodcock-Johnson were 2.3 for reading, 3.0 for math and 1.6 for written language skills.

Her scores are depicted on Table 5.



Despite her scholastic frustrations, Maturity maintained high marks on each report card in personal growth and study habits. Her parents worked hard to keep her self-esteem up and helped her nightly in school subjects. At the end of her fourth grade year her teacher wrote that she "...enjoyed (Maturity's) cheerful disposition and friendliness."

#### Direct Instruction in Special Education: Grades 4.7-5.9

Maturity's entire special education academic experience in elementary school consisted of direct instruction through SRA programs. She ended fifth grade with W-J scores of 2.4 in reading, 3.2 in math and 3.2 in written language.

Maturity's W-J scores indicate that in approximately 14 school calendar months of special education instruction she had made gains of 1 month in reading, 2 months in math and one year, six months in written language.

Nevertheless, Maturity's report cards continued to show personal growth and work habit strengths. Her fifth grade teacher wrote that she "...was able to grasp meanings quickly" and that she "...was an excellent student."

However, Maturity and her parents continued to be anxious about Maturity's consistent lack of progress in reading. They worked daily on reading skills at home. During the summer between 5th and 6th grades, they hired a special teacher from The Children's Program in Portland. Through this individual instruction, Maturity was taught how to break words into parts using her fingers. She learned letter sounds through experience with word families.

Eclectic Instruction:  
Grades 6-7

Maturity entered the middle school for sixth grade. Her special education reading instructional method was Eclectic.

Though her reading was faltering, with long stops to figure out second grade level words, Maturity read with amazingly accurate expression and comprehension. However, sounding out each word with her fingers, whether alone, with the teacher, or within the reading group, was laborious. She would often stop and say, frustrated, "Just tell me the word!" She was anxious to get on with the adventure of the story.

At the beginning of sixth grade, Maturity's parents had her tutor from The Children's Program come to the middle school to explain instructional strategies developed for Maturity. Her fall W-J had showed a gain of 2 months in reading after 2 months of summer instruction. The tutor suggested Reading Via Typing (Don McCabe, AVKO Educational Research Foundation Inc., 1981) that taught spelling, reading and typing all at once using word families. As the special education program had coincidentally been using this program already, the transition for Maturity was easy. The tutor also recommended plenty of practice reading orally, reminding Maturity to use her fingers to divide and sound out words. She also advised the use of high-interest, low reading level books

so that Maturity would be motivated to read through interest in the story. As all of the tutor's suggestions were already in plan or practice in the middle school special education program, the two programs, the tutor's and the school's special education curriculum, were similar and mutually reinforcing.

Maturity met two or three times a month with her tutor until Christmas vacation, when she refused to continue her special lessons. She didn't like going any more; nor did she want to take the time to attend the sessions. She seemed frustrated with keeping on task dividing and sounding out words with her fingers, though her improvement in this area was duly noted and encouraged in her special education class.

Maturity's favorite activity in her special education reading class was drama. At her leadership, the class videotaped their rendition of an Action play, published by *Scholastic Magazine*. Maturity had her star role story lines accurately memorized overnight. Her parents helped her with the difficult words. She was also the best prompter for all the other parts, an amazing feat for a student documented through psychological testing as deficit in short term memory.



Meaningful, interesting, physically involving or exciting material seemed to be keys to overcoming her memory blocks.

While she continued to struggle with her decoding skills, her comprehension was near 100% and her insightful contributions to class discussions revealed a well developed ability to think conceptually and abstractly.

At the end of sixth grade, Maturity had her highest reading gain, one year and eight months! Her reading level had increased to 4.4, her math to 4.4 and her written language to 3.6.

Her grade point averages for each quarter were 3.0, 2.8, 2.2, and 2.8, fall to spring respectfully. With 2.8 being her g.p.a. for both first and second semesters, her overall g.p.a. for the year was 2.8.

Disappointingly, after summer vacation, fall testing indicated Maturity had regressed to a 3.4 reading level, a loss of 12 months. While she regained eight months by the end of seventh grade, she was still two months below her sixth grade score. In math she ended the year at 5.6 and in written language at 3.7.

Her average seventh grade g.p.a. was 2.896. Therefore, under Eclectic instruction during grades 6 and 7, her average g.p.a. was 2.848.

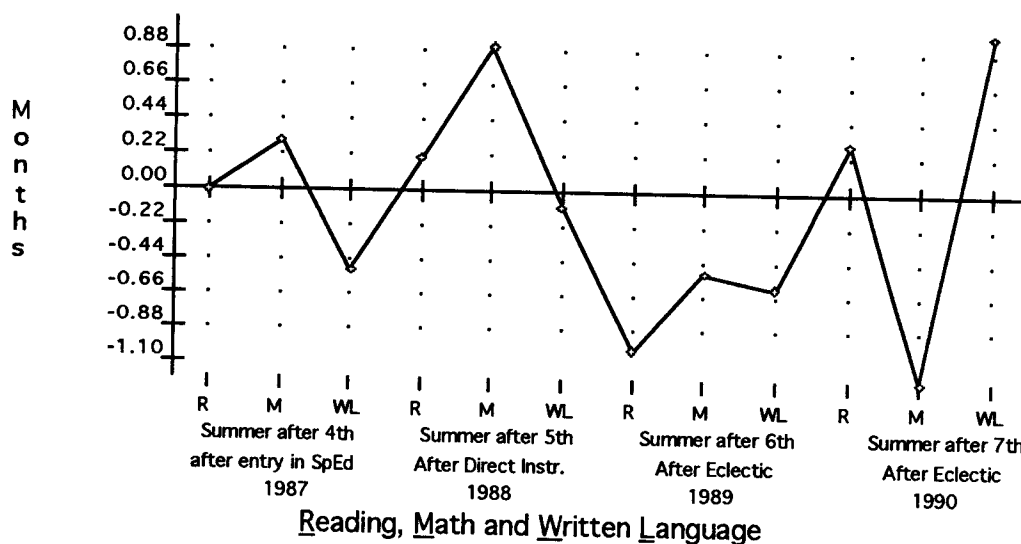
Accelerated Learning Instruction:  
Grade 8

In eighth grade Maturity began the year with a 4.5 grade equivalent in reading, a 4.4 in math and a 4.7 in written language. There were questionable results after a summer with no educational intervention. The erratic data on the Summer Gains/Losses Chart is interesting because special education students generally lose a few months in each subject over the summer months (Tschirgi, 1991). However, Maturity's gains/losses show some inexplicable extreme volatility.

Table 6 illustrates the difference between spring and fall scores. In the summer of 1988 she gained 9 months in math, yet she reported that she hadn't worked on math at all. Over the summer of 1989 she lost one complete year in reading ability and during the summer of 1990 she gained one year in written language skills, again, all occurring without any

interventions.

Table 6. C.S. #1: Summer Gains & Loses



In eighth grade Maturity was placed in a language arts tutorial with individual instruction on typing, spelling and language arts for 45 minutes a day with a special education instructional assistant. In her special education math and reading classes her leadership skills and ambitious nature combined to make her the leading influence in the class. She was appointed President of the LASER Program (the acronym given the special education class specializing in learning disabilities and meaning Learning Acceleration through Strategic Educational Reinforcement) Three Point and Better Club. On a quarterly basis, to the tune of "Rocky", she was the Mistress of Ceremonies, bestowing on spotlighted LASER

students special certificates for earning a 3.0 g.p.a. or better.

In reading she was readily enthusiastic about all of the components of the AL method. As time went by, Maturity volunteered to give several of the visualizations. Her creative talent thrived. By February she introduced the idea of each one in the class, including teacher, having a fantasy name and persona with fantasy situations that could be inspired by different topics (which she listed) and corresponding music.

The end result was a book she developed called Fantasies, Lies, and All You Could Imagine. Inside she listed each writer's fantasy name and characteristics. Each day, with the teacher matching mood music to a class-chosen topic, the students wrote visualizations. After seven minutes, each student read what they had been inspired to write. These visualizations were typed up and bound into a book at the end of the year.

The remaining class time was devoted to AL-taught specific reading units. The class began in the fall with sixth grade high interest books from the Passages program, (Perfection Form Co., 1978).

As Maturity's fall W-J reading score was 4.5 grade equivalency, she was hesitant when it was time to switch to the seventh grade regular reading textbook. However, when the class was given the job of choosing which stories in the textbook they would read first, they chose the plays first -at Maturity's suggestion. The students learned the new vocabulary words for which they were responsible through games and drill. The publisher's study guides and tests that the regular seventh grade reading class were assigned were also used successfully.

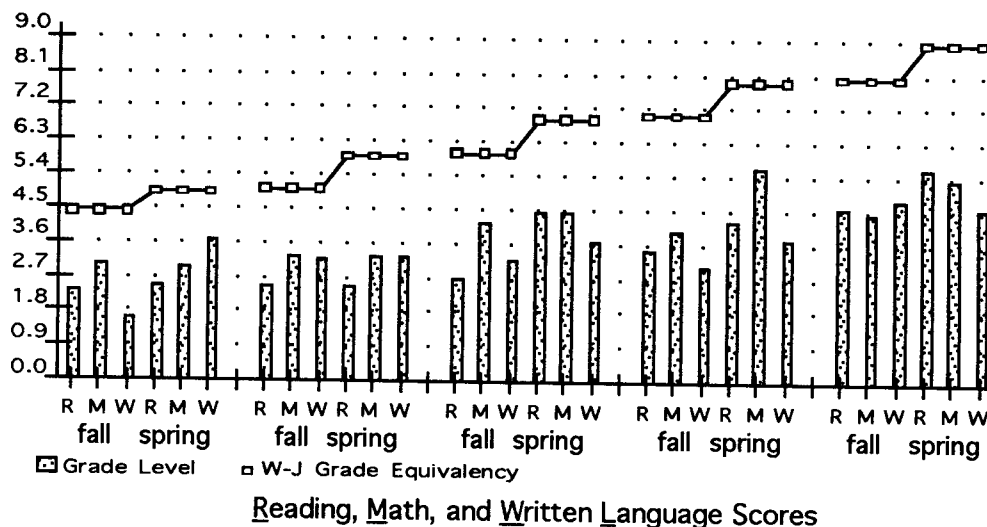
By third quarter Maturity advanced into the eighth grade textbook. She helped to choose which stories would be read first. She was successful, earning no grade below a C on any of the publisher's tests. She and her other classmates were asked, by the regular eighth grade reading teacher, to enter the regular eighth grade reading class. However, they all refused. They said they couldn't succeed without the AL techniques.

Maturity's spring W-J scores indicated she was up to 5.6 in reading, a one year and one month gain. In math she was up nine months with 5.3. Disappointingly, even with the

individual help in language arts, she only gained two months in written language, bringing her to a 4.5.

Reading was the only class that utilized the full AL approach. These scores, along with those from earlier years, are diagrammed in Table 7. Her 8th grade average was 3.3125.

Table 7. C.S. #1: 4th-8th Grade W-J Scores



## Summary

### *Behavior*

Under which kind of instructional program was Maturity reported with the highest degree of positive study habits and personal growth?

Maturity was able to sustain a friendly, helpful disposition from her kindergarten through the eighth grade

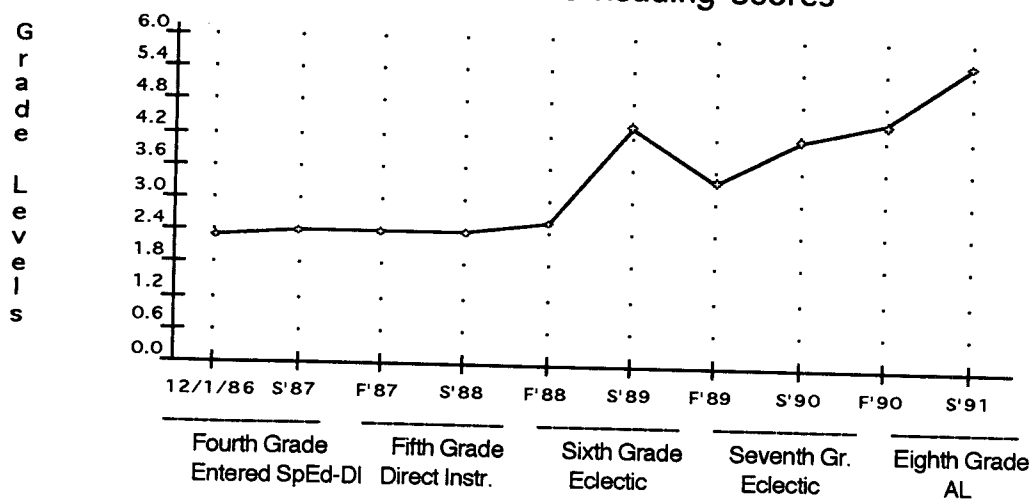
years. While having difficulty with her basic skills, she kept up strong work habits and received repeated recognition for character development, culminating in a nomination for the Sarkinen Prize.

### *Achievement*

Under which kind of instructional program, regular or special education (specifically Direct Instruction, Eclectic or Accelerated Learning) did Maturity experience her highest gains in reading?

Maturity's specific W-J fall and spring reading test scores, recorded since her entrance into special education in December of her fourth grade year, are graphed in Table 8.

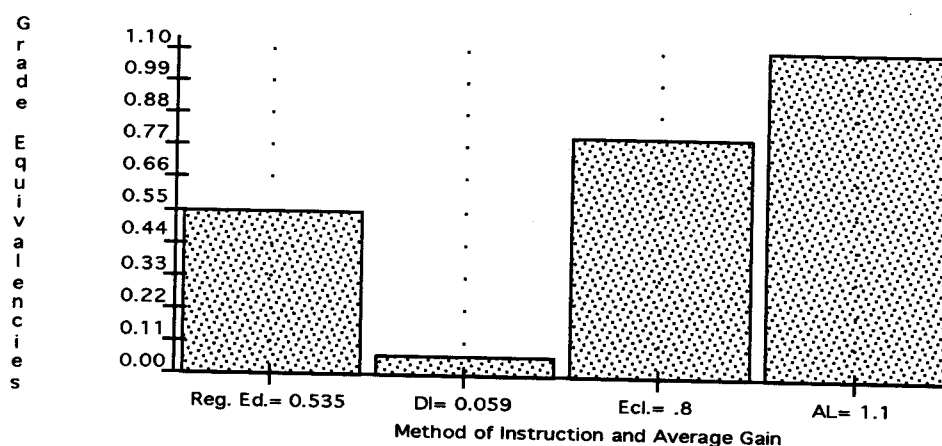
Table 8. C.S. #1: W-J Reading Scores



This chart shows that Maturity's reading scores stayed almost the same during her first years in special education. Major progress is noted at the end of spring of 1989. Achievement continued through the spring of 1991.

Table 9 depicts Maturity's averaged reading scores in relation to the kind of instruction in reading she received. The average expected gain is 1.0 in any academic year. The gain of .535 for her first years is an estimate based on her first W-J score in the middle of her fourth grade year which was 2.3. (Compute: divide 2.3, her reading grade equivalency, by 4.3, her years of schooling, and get .535).

Table 9. C.S. #1: Average Gains in Reading



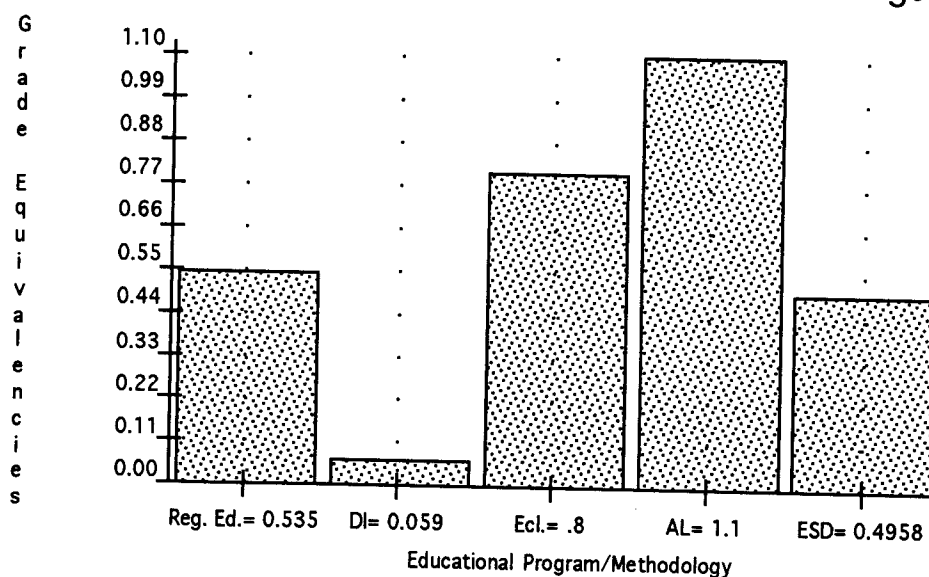
The graph illustrates that Direct Instruction methods in reading not only had little or no visible affect on her reading



progress, but appeared to have had less than the regular curriculum. Both Eclectic and Accelerated Learning are depicted as contributing to greater progress than any other intervention.

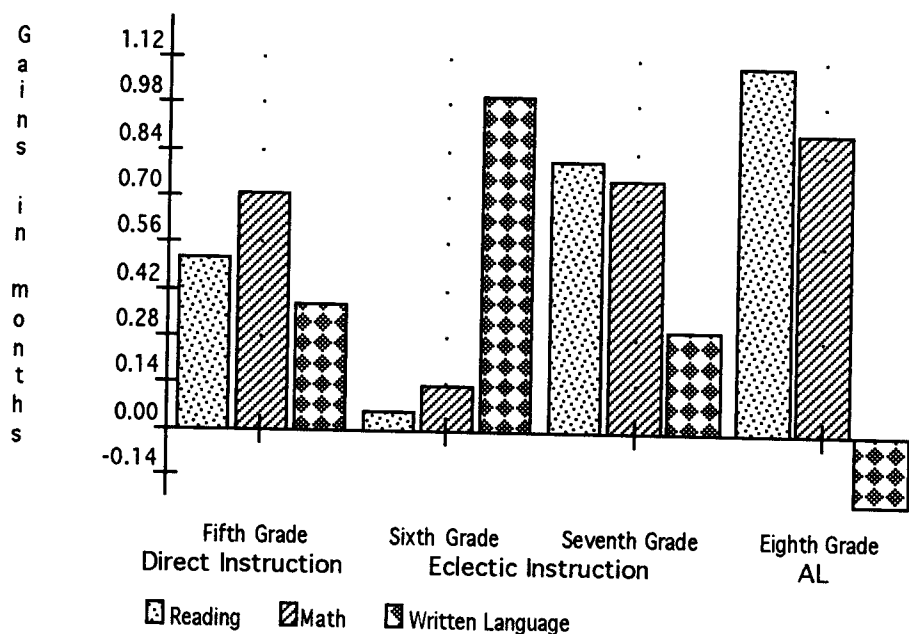
In comparison to the average gain documented by ESD#112's population of SLD students and depicted on Table 10, Maturity's gains under both Eclectic and Accelerated Learning Methods were also higher than those achieved by the average learning disabled student within Educational School District #112 as documented in Project Progress statistics (Appendix C). In Direct Instruction they were not.

Table 10. C.S. #1: Gains and ESD #112's Average



In comparing Maturity's reading gains with those of other basic skills also addressed within her special education curriculum, it appears that reading gains do not show an impact upon math or written language achievement. When she made her highest gain in reading she had a modest growth in math and written language. But, when she made her highest gain in math, she made her second lowest gain in reading. She made her greatest cumulative gain when she made her greatest gain in math. However, no pattern appears to definitely suggest any achievement gain in one subject impacted another.

Table 11. C.S. #1: Comparison of W-J Gains

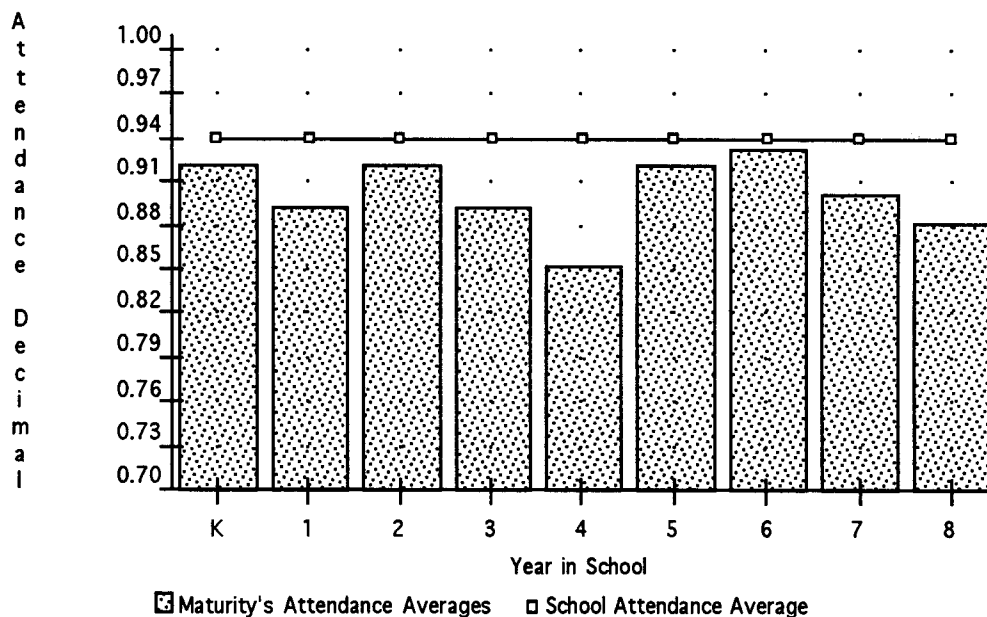


## Attendance

**Under which instructional intervention did Maturity exhibit the highest rate of attendance?**

Table 12 shows Maturity's attendance percentages compared to the school's average attendance rate (Quinn, 1992). Her attendance was highest during sixth grade (93%) and in grades K, 2, and 5 (92%). Her attendance was lowest during fourth grade (85%) and in eighth grade (88%). Throughout her school years her attendance average remained lower than the school's attendance average.

**Table 12. C.S. #1: Yearly Attendance Averages**



It was known that her parents sometimes had her take "days off" to go shopping and out to lunch. Keeping her self-esteem and spirits high was their stated rationale. In eighth grade she and her mother took a few days off school for a trip to San Francisco.

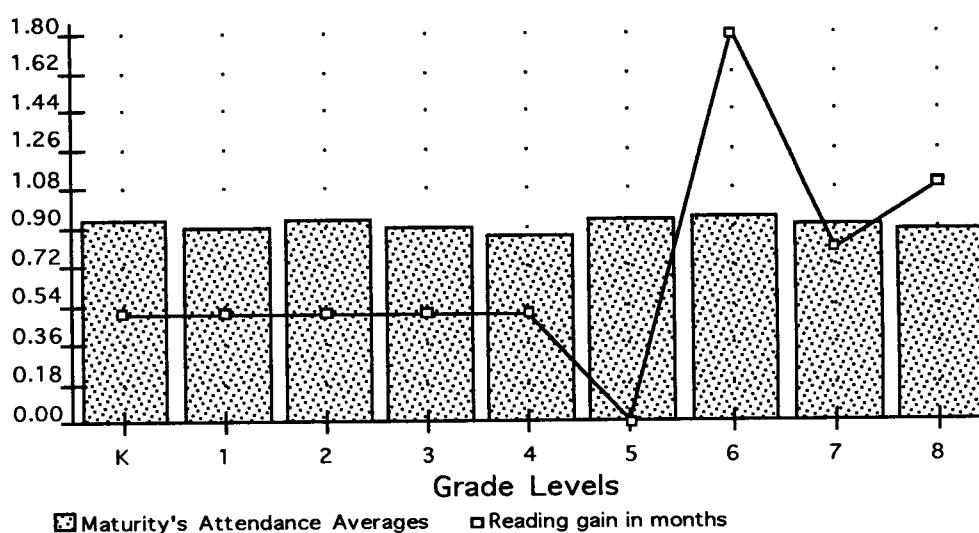
Attendance was investigated as a possible factor affecting Maturity's reading gains or as a result of specific interventions. If her gains were lowest during times of decreased attendance, then attendance could be considered as a factor affecting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could possibly be construed that the instruction was a factor in encouraging Maturity's absences.

Examining Table 13, note the columns indicating attendance percentage and the line graph indicating reading gains (computed fall-to-spring). Further, note that the .535 score for K-4 is only an estimate based on Maturity's first W-J reading score of 2.3 obtained in the fourth grade. When Maturity had her lowest reading gain, in fifth grade, her attendance was high (92%). However, when her reading gain

was highest, her attendance was also at its peak (93%).

Therefore, Table 13 illustrates that attendance percentage does not appear to either affect or be affected by any particular reading instructional method.

Table 13. C.S. #1: Attendance & Reading Gains



### *Academic*

**Under which instructional intervention did Maturity have the highest g.p.a.?**

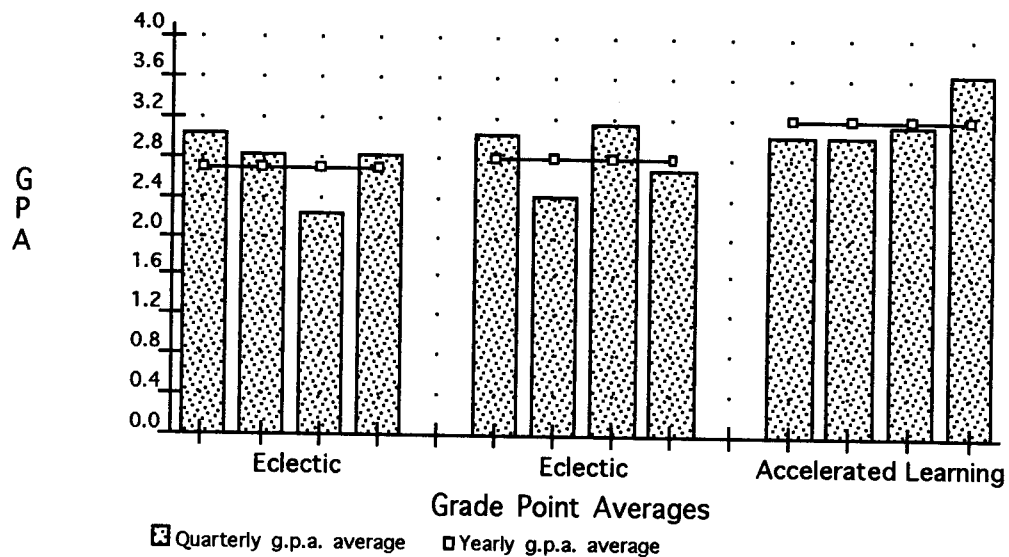
During regular education, before special education placement, Maturity's teachers worked to adapt assignments and expectations. However, her teachers, beginning in the first grade, continually recommended special education placement

on the basis of Maturity's slow progress in the basic skills. By the middle of fourth grade, after psychological testing and vision training, Maturity's parents hesitantly decided to try special education. Her elementary level special education reading instruction was taught using Direct Instruction. Maturity's grades, when on a check and plus system, were satisfactory or above, though the amount of teacher adaptation is not indicated.

In the middle school, with letter grades, Maturity's parents asked for no content area adaptations except that Maturity be given some written tests orally. Her sixth grade average g.p.a. was 2.8. In seventh grade her average was 2.896. Therefore her g.p.a. under Eclectic treatment was 2.848. In eighth grade, under Accelerated Learning with no adaptations or tests given orally, it rose to 3.3125. Table 14 depicts this rise in academic success.

The straight line on the graph illustrates the g.p.a. average for each year. In sixth grade it was 2.8, in seventh 2.896 and in 8th, 3.3125.

Table 14. C.S. #1: GPA and Instructional Method



### *Student Attitude*

**What were the most common major factors**

**Maturity gave for her achievements in reading?**

In an interview with Maturity in the fall of 1991, five days before she entered high school, she said that what improved her reading the most was her individual lessons on breaking up words and sounding them out and a relaxed, fun atmosphere in class. She said she really appreciated working in a small group, acting out plays, reading aloud and receiving inspiration and motivation from the teacher.

Maturity thinks she could continue to best realize gains in reading if the teacher used AL techniques, including drama,

peer tutoring, games and a variety of techniques as opposed to lectures and homework assignments.

### Conclusion

No instructional method appeared to influence the report card comments on Maturity's personal growth and study habits. They remained high throughout her elementary and middle school career whether she was making great gains in reading or not.

It is evident that Maturity experienced her highest average gain in reading under Accelerated Learning instruction. However, her highest gain in any one year occurred while she was under Eclectic instruction and received private tutorial instruction.

When her reading gains were compared to gains in math and written language, achievement gains in no subject appeared to impact another.

Maturity did not experience a higher rate of school attendance during any specific instructional intervention. Also, no pattern appeared when comparing Maturity's attendance rates and reading achievement.



Maturity experienced her highest g.p.a. while receiving Accelerated Learning for reading instruction.

The overall conclusion is that those factors found both in Eclectic and Accelerated Learning methodologies as well as in her private tutorial contributed to Maturity's increased grade equivalency scores in reading as measured by the Woodcock-Johnson. Some of these factors included using interactive activities like plays and games and sounding out word strategies with oral group reading.

## Case Study 2: Christi

### Description

Subject #2 is tall with naturally light blond hair. She modeled for her seventh grade art class, striking interesting poses for long periods of time. She's gregarious and straightforward. She has difficulty with abstract conceptualizations, vocabulary usage and memorization. Her long term goals in life have included becoming a missionary or joining the army.

### Pre-School

By coincidence, the researcher was involved in the same pre-school cooperative as Christi and her mother. Christi was disorganized, hurtling with unbridled energy from one area of the classroom to another, with little focus on specific tasks. The teacher consistently rewarded her for quiet attention.

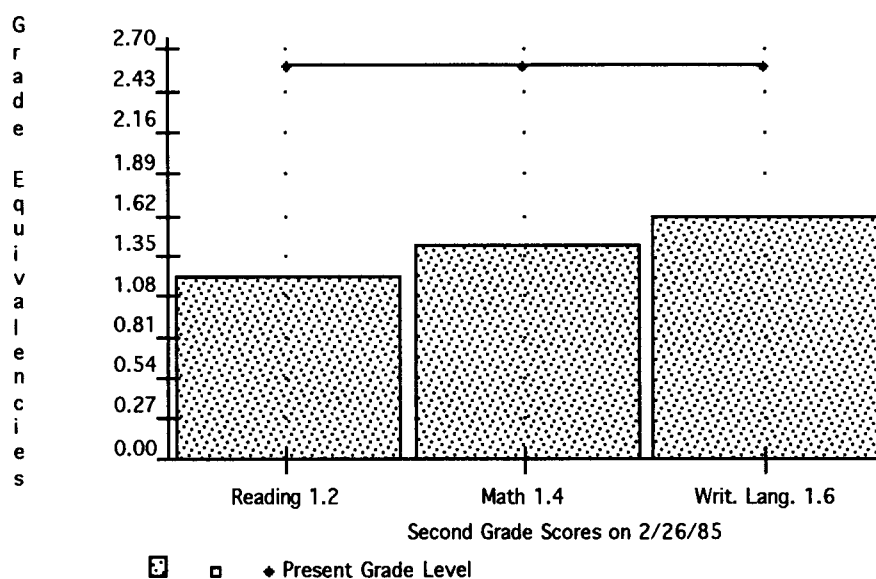
### Direct Instruction in Special Education: Grades 2.6-5.9

During kindergarten Christi was referred to special education services for speech articulation therapy. The CDS

staff noted that her articulation problem was an organic, genetic problem with little chance of remediation. Her mother, who spoke with the same articulation, did not recognize Christi's speech as a problem. The CDS staff discontinued her referral after three years of relatively unsuccessful therapy.

In second grade Christi was referred for special education services because she had difficulty working independently and could not remember all of the letter names and their sounds. Table 15 shows her initial W-J reading grade equivalent was 1.2, math 1.4 and written language 1.6.

Table 15. C.S. #2: First Scores on W-J



During the second through fifth grades Christi was involved in DI programs to increase her basic skills. Her regular fourth grade teacher reported that it was "difficult to motivate her to do anything without help. She always wants someone to sit with her and help her."

By the end of fifth grade she was reading at the 3.1 grade level. She had gained 1.9 years of reading, an average of .56 months a year, since her initial assessment. Her written language scores were similar to her reading scores. She did the best in math.

Eclectic Instruction:  
Grades 6-7

Fall testing indicated that Christi had lost only one month of reading ability during her fifth grade summer vacation. Her W-J scores were 3.0 in reading, 4.1 in math and 3.0 in written language skills. However, her social skills for the next two years proved to be a problem. She was overtly rude, telling teachers and instructional assistants that they looked "ugly" or that they should "wash their clothes more often". She literally chased boys around the

school grounds as well as in the classroom. She yelled sexual comments throughout the school. She received counselling at school and her parents took her to a family counselor. She could not visit shopping centers because she would leave her mother and attach herself to boys she hadn't met before. Her parents couldn't leave her alone in their home because she would call boys who had cars to come pick her up.

In class she was a challenge to keep on task. She preferred to talk about boy problems and make shocking remarks.

Christi's sixth grade g.p.a. was 2.917. As her inappropriate behaviors continued to grow, her seventh grade g.p.a. dropped to 2.4125. Teachers adapted their tests for her and did not require her complete all homework assignments. Her overall g.p.a. during the years she received eclectic instruction in reading was a generous 2.66475.

Her achievement in reading was one year and one month for sixth grade and one month in seventh grade. She gained one month during her sixth grade summer vacation.

Her average gain under eclectic reading instruction, using her fall sixth grade and spring seventh grade scores, was approximately six and a half months per year.

Accelerated Learning Instruction:  
Grade 8

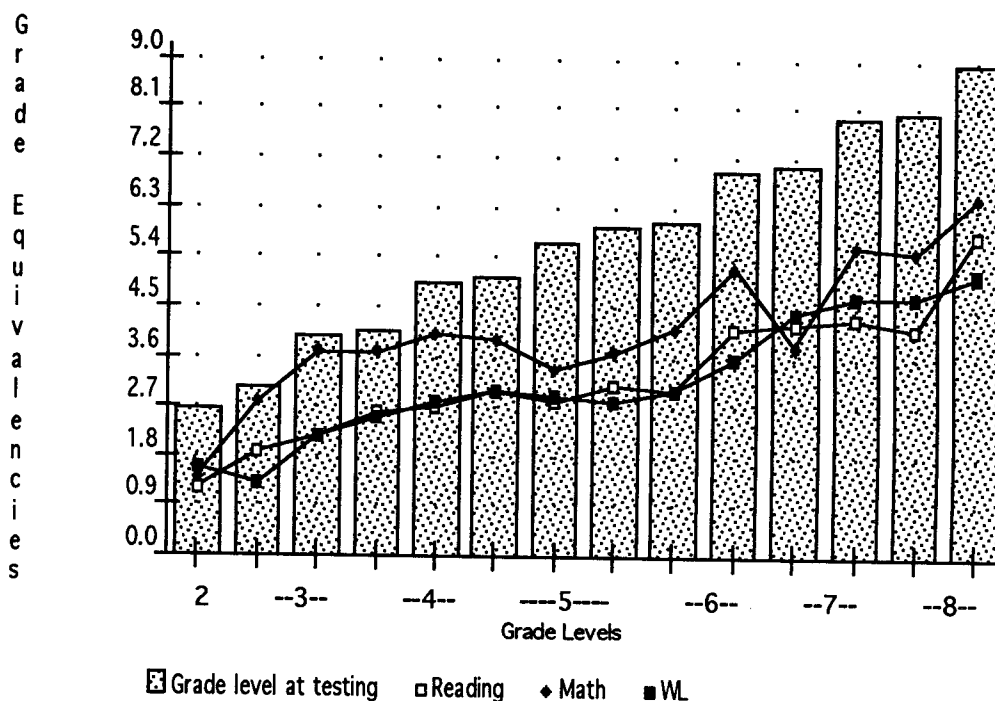
Christi entered the eighth grade with a 4.1 grade equivalency in reading, a 2 month loss over summer vacation, and a new personality. She reported that she had had a religious experience and was a member of a Christian club for teenagers in crisis called Club Revelation. Her voice could no longer be heard hurling insults down the school halls and her boy chasing at school stopped. She was helpful and considerate.

Christi cooperatively participated in all phases of the AL reading instruction. She reported that she liked the music and visualization. As soon as the music began she closed her eyes and rested her head on the table. Her voice became softer in reading and she became more patient with herself in sounding words out. She participated in all the games and activities, giving encouragement to the other

students.

Christi's W-J scores are graphed on Table 16. Her highest gain in reading, 1.5, occurred during AL instruction.

Table 16. C.S. #2: 2nd-8th Grade Scores on W-J



Christi's semester eighth grade g.p.a.'s were 3.25 and 3.5. Her eighth grade average g.p.a. was 3.375. Her W-J reading score was 5.8, a gain of one year and seven months within one academic year. Her other W-J scores, taught without AL methods, indicated math up by one year and written language up by four months.

## Summary

### *Behavior*

**Under which kind of instructional program was Christi reported with the highest degree of positive study habits and personal growth?**

Christi's behavior throughout her schooling was remarkably dependent, excitable and hyperactive. However, after her religious experience and during her exposure to Accelerated Learning the comments on her report card were all positive. During this year she received a commendation as the Most Improved Student.

### *Achievement*

**Under which kind of instructional program, regular or special education (specifically Direct Instruction, Eclectic or Accelerated Learning) did Christi experience the highest gains in reading?**

Christi obtained her highest gains on the W-J after AL intervention.

In kindergarten Christi began special education services with speech articulation therapy. However, by



March she had a complete assessment and was diagnosed as learning disabled.

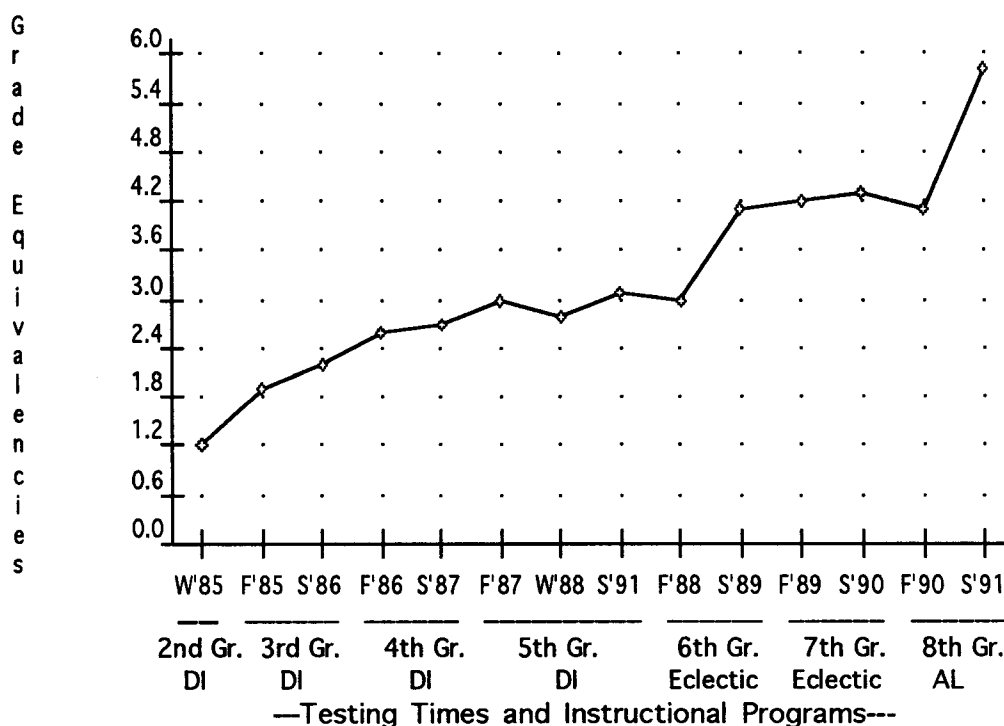
Christi attended kindergarten through eighth grade in the same school district. Her special education in reading was taught using Direct Instruction techniques from the second through fifth grades. From her mid-second through fifth grade years, Christi advanced from a 1.2 grade equivalency in reading to a 3.1, a gain of 1.9 in approximately 3.4 academic years. Her average gain was therefore approximately .56 months a year.

Christi's first two years at the middle school were frenzied. Because of emotional instability, her family involved her in counselling. Her teachers adapted work and tests for her.

Her reading instruction was conducted using eclectic methods. She advanced quickly in sixth grade, gaining one year and one month on the W-J reading test. However, during her seventh grade she gained only one month. Her average reading gain for two academic years was about six and a half months a year.

In the eighth grade, under AL reading methodology, Christi improved in every area. Her reading increased by one year and seven months. Table 17 charts her reading scores and cites the reading method used for each intervention.

Table 17. C.S. #2: W-J Reading Scores



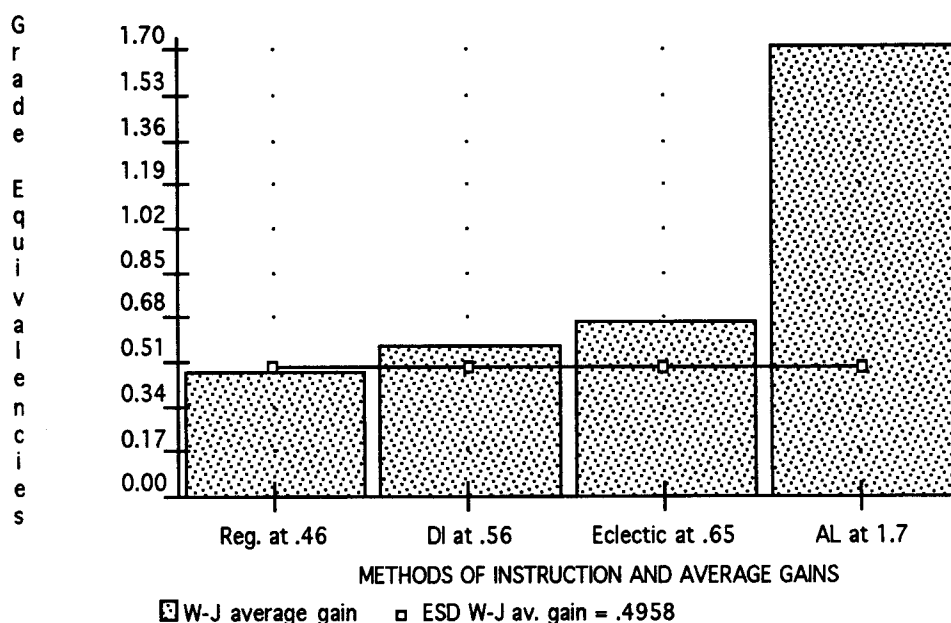
The average expected gain is 1.0 in any academic year.

The gain of .46 for her first years in the regular curriculum is an estimate based on Christi's first W-J score recorded in the winter of her second grade.

Table 18 illustrates a much lower reading achievement gain in reading while Christi received instruction under

regular, Direct Instruction and Eclectic programs than under Accelerated Learning.

Table 18. C.S. #2: Average Gains in Reading

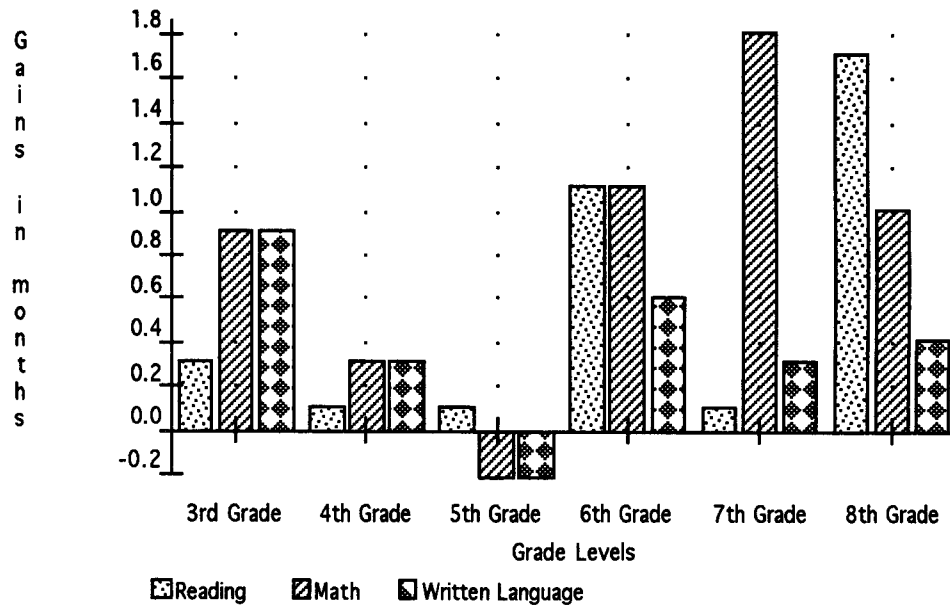


In comparing Christi's average reading gains to those of other learning disabled students throughout ESD #112, the first three methods show similar results. However, under AL her reading gain is more than three times the ESD average.

In comparing Christi's reading gains with those of her other basic skills addressed in special education classes, there is little indication that reading gain impacted either math or written language gain. When reading gains were highest, math gains were moderate and language arts was

low. However, total gains for all three skills was highest under AL. Table 19 illustrates these data.

Table 19. C.S. #2: Comparison of W-J Gains

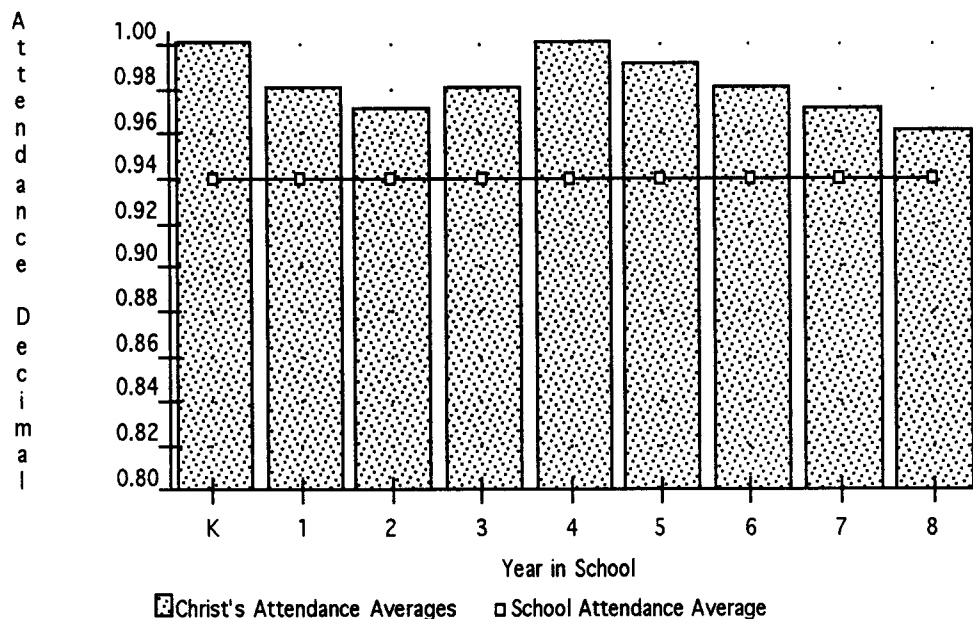


### *Attendance*

Under which instructional intervention did Christi exhibit the highest rate of attendance?

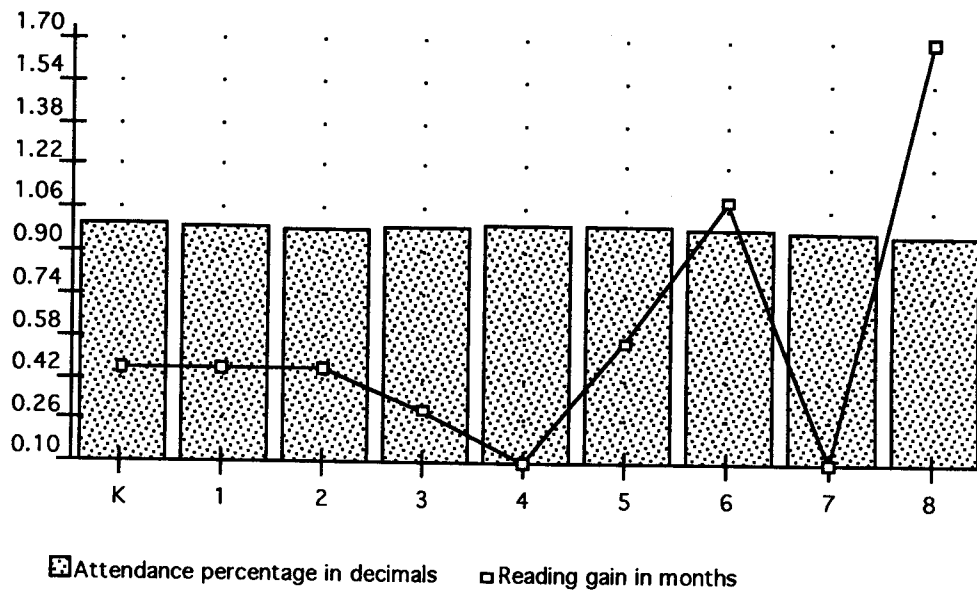
Table 20 graphs Christi's attendance percentages which remained above the school average throughout all her years of schooling. However, during her last three years of school she had orthodontia appointments which often kept her from school a half a day a month.

Table 20. C.S. #1: Yearly Attendance Averages



Attendance percentage was investigated as a possible factor either affecting Christi's reading gains or benefitting from specific interventions. For example, if her gains were lowest during times of decreased attendance, then attendance could be construed as negatively impacting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could possibly be construed that the instruction was a factor in encouraging Christi's absences.

Table 21. C.S. #2: Attendance and Reading Gains



Examining Table 21 it is evident that while her attendance remained stable, there was much fluctuation in her yearly gains in reading. Therefore, it can be inferred that attendance percentage did not appear to either affect or be affected by any particular reading instructional method.

### *Academic*

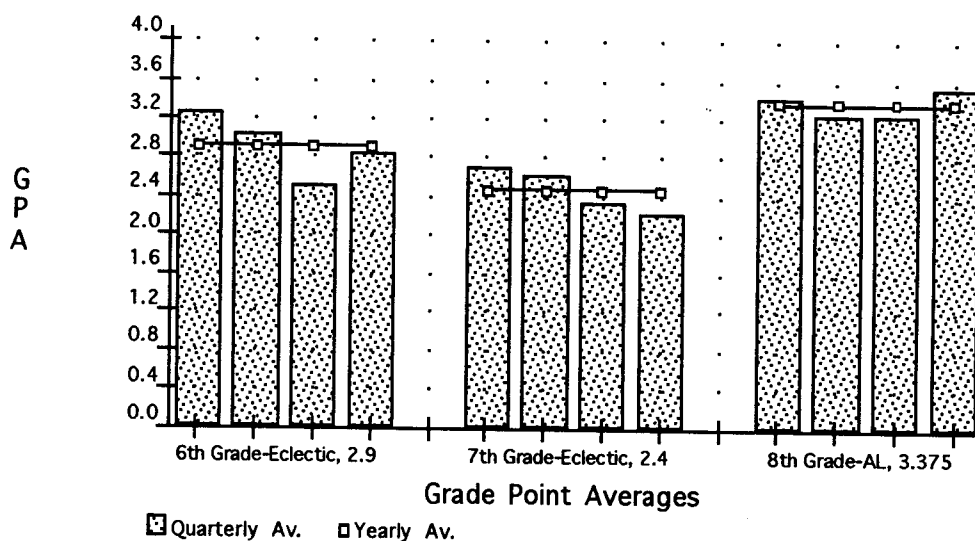
Under which instructional intervention did Christi have the highest g.p.a.?

Christi achieved her highest g.p.a. during the time of her highest gains in reading which occurred under Accelerated Learning. Throughout all nine years of her elementary and

middle school instruction, comments regarding sacrificing accuracy for unnecessary speed and relying unduly on others for help are noted on her report cards.

Her average sixth grade g.p.a. was 2.917. In seventh grade, with science work adapted, her average was 2.4125. In eighth grade, again with science adapted, she earned a 3.375. Table 22 depicts her grade point for each quarter in middle school and her yearly g.p.a. average. It also denotes the type of instructional program she received for reading.

Table 22. C.S. #2: GPA and Reading Methodology



During her time under AL instruction, Christi's teachers no longer adapted her tests or assignments. She grew in independent work habits, not only regarding help as

"confusing" and "not needed", but taking pride in completing assignments independently. Her quarterly grade points never dipped under a 3.25.

### *Student Attitude*

**What were the most common major factors Christi gave for her achievements in reading?**

In an interview with Christi on 1/6/92, she was shown the graphs contained in this report. When asked why she felt she made her greatest gain under the AL method she said, "It was because I wanted a 3.5 and my parents said they'd give me money if I did." She also said Accelerated Learning "calmed me down when I was mad." She said she liked the visualization part of AL because it "took up time so the class wasn't as long."

When given a list of items to respond to, she targeted the following as those that she thought helped her achieve the most under AL: relaxation, positive suggestion, independent work, motivation like the 3.0 and Better Club, funny teacher, materials she liked, contests and motivation.

When asked what circumstances would make her feel



like she could succeed in the regular classroom she said, "I don't know. I could if I wanted to; if I put my mind to it." When pressed she said, "I probably wouldn't like it because I wouldn't be as high up as everyone else."

### Conclusion

It is not certain that any instructional method influenced Christi's personal growth and study habits as much as her religious experience the summer of her seventh grade year, just prior to her exposure to AL. In an interview on January 23, 1992 her mother said that her daughter, now in high school, changed personalities that summer and has remained strong in her faith, praying twice a day, never lying and becoming a model of responsibility. She said her daughter was also maintaining her grades at a 3.0 or above.

However, it is evident that Christi experienced her highest gain in reading under Accelerated Learning instructional methodologies. Her AL gain was more than three times the ESD average and her own average under DI.

Christi's attendance percentage did not appear to either affect or be affected by any particular reading gain or

instructional intervention.

Christi experienced her highest g.p.a. while receiving Accelerated Learning for reading instruction.

When examining her attitude for clues for her success under AL it is noted that Christi wanted to succeed during her eighth grade year. She also mentioned specific strategies and techniques in the AL method, like the relaxing segment, that calmed her down and therefore helped her to focus on the class activities. While she wasn't sure she wanted to be in a regular reading class, she thought she could be successful if she put her mind to it. This type of positive attitude is a key goal intrinsic to the AL method and reinforced by daily positive suggestions and visualizations.

### Case Studies #3 and #4: The Blues Brothers

#### Description

Case Study #3 and Case Study #4 are identical twin boys who work part time at the restaurant owned by their parents. They mimic each other in dress, language and interests. The researcher would ask C.S.#3 something privately and then ask the same of C.S.#4 (his brother) and invariably get the same answer: "It's boring", "It's stupid" or "I don't know." Though likable, they have a cynical type of humor, refusing to admit to anything being fun or interesting. For this reason, they are called the Blues Brothers in this report.

The Blues Brothers attended a Christian school for six years. The school was ungraded and students moved through a workbook sequence at their own rate. When the parents enrolled their boys in middle school they misled the office staff and registered them in seventh grade instead of sixth. Two years later, when this error was discovered, the twins said their parents did it to "get it over with sooner", meaning the parents wanted to have their sons finish school a year

early.

However, while the boys had been getting high marks on their written report cards at the Christian school, soon after beginning seventh grade it was discovered that their actual abilities in the basic skills were low.

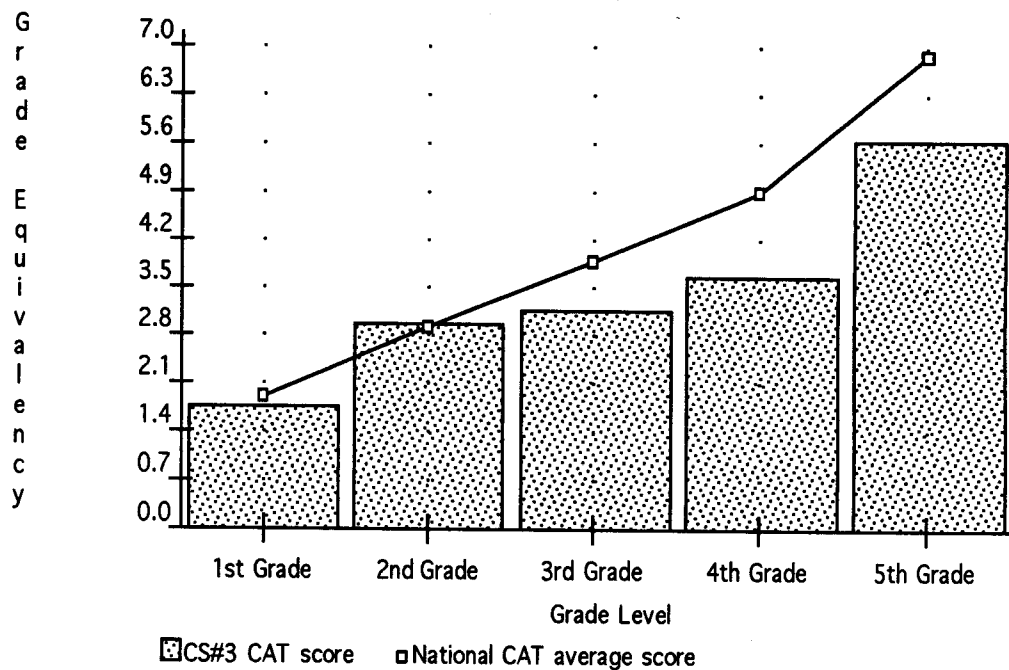
Regular Curriculum-Christian School:  
Kindergarten through Sixth Grade

Throughout their elementary years at the Christian school the Blues Brothers were in a program called Pace. They worked independently at work stations from workbooks at their own rate. A teacher was available for consultation. Their grades were awarded as percentages. There was no mention on the report card of how far a child had travelled within a Pace workbook, only the percent of accuracy achieved on the work completed. Both boys occasionally made the school honor roll with averages in the 90 percentile range.

Both boys were given California Achievement Tests (CAT) to measure their progress. At the end of first grade Blues Brother #1 (C.S. #3) had a grade equivalency score of

1.7, at the end of second grade it was 2.9, at the end of third 3.1, at the end of fourth 3.6, and at the end of fifth grade it was 5.6. See Table 23.

Table 23. C.S. #3: CAT Scores

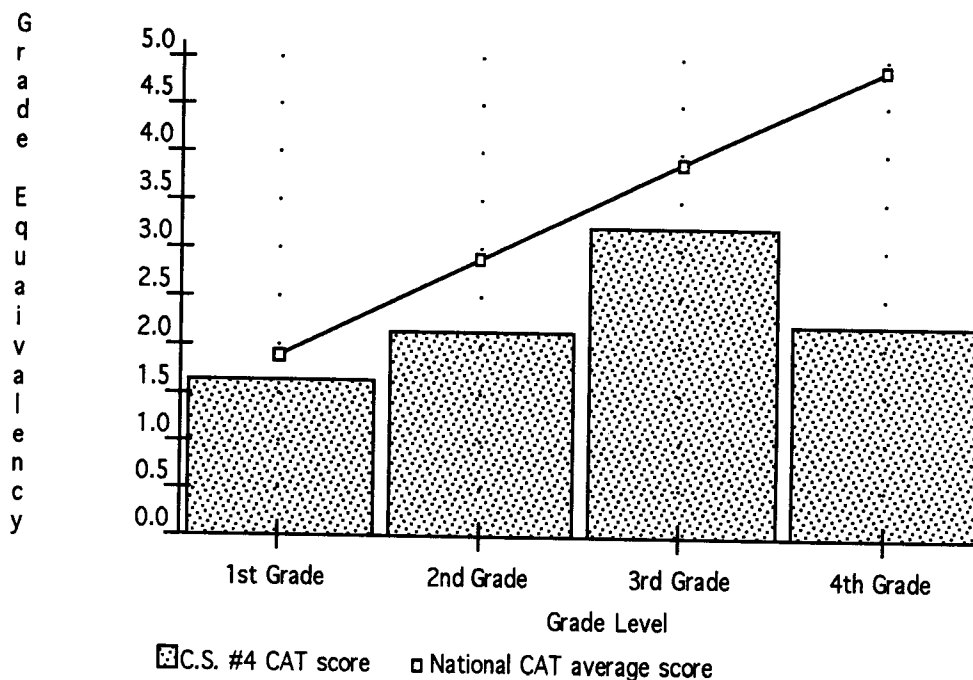


Blues Brother #1 began to slip in the third grade though there is no indication in the written comments section of his report card then or later that indicate anything less than satisfactory work habits and personal growth.

The Chart of the other Blues Brother, C.S #4, illustrates reading deficits beginning in first grade with a CAT score of 1.6. In second it was 2.1, in third 3.2 and in fourth 2.2. No

score for fifth was in his records.

Table 24. C.S. #4: CAT Scores



Though reading achievement is indicated in third grade, by fourth grade Blues Brother #2 is more than twice behind the average of his peers.

#### Regular Education and Special Education with Eclectic Instruction: Grade 7

The Blues Brothers entered public school for their middle school education. Their first progress reports noted that their "work was not in", they "lacked motivation" and that they had "poor or failing grades on tests". They were

soon referred for special education services. Their initial scores on the W-J are indicated on Tables 25 and 26.

Table 25. C.S. #3: First Scores on W-J

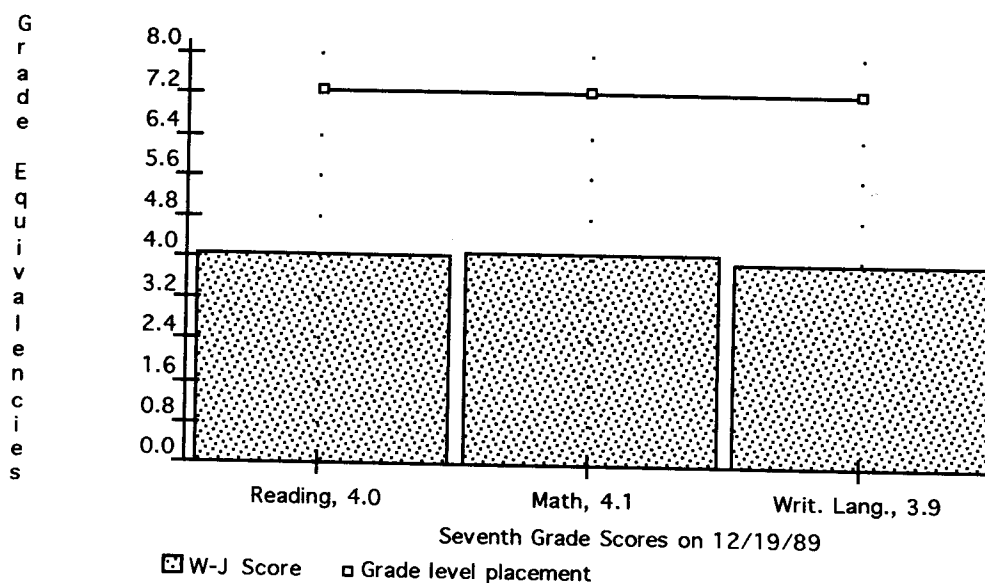
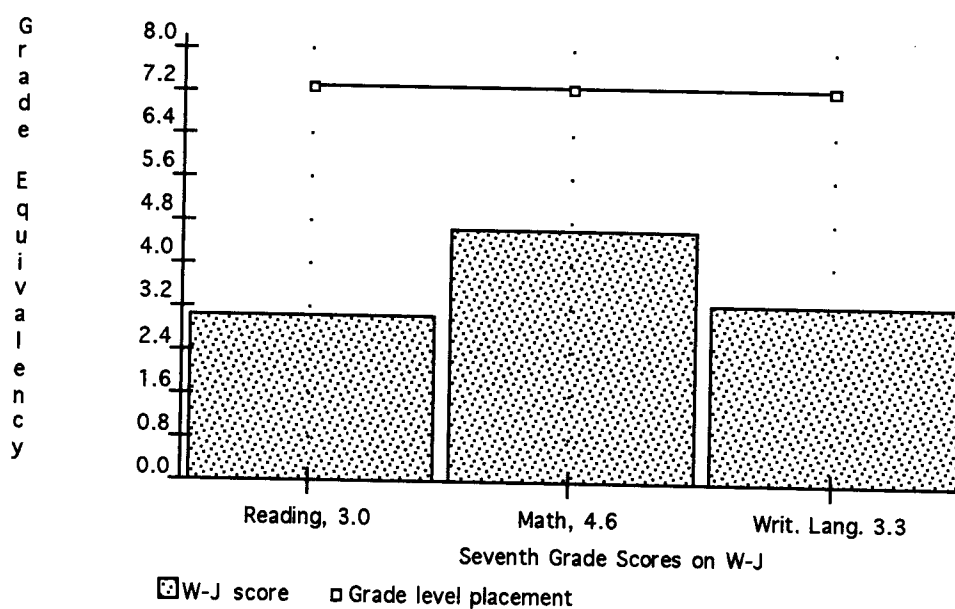


Table 26. C.S. #4: First Scores on W-J



Both boys were more than two years behind the national average on their Woodcock-Johnson scores in every area and qualified for special education services. It was the decision of the basic math teacher that Blues Brother #1 should be taught math in special education. The multi-disciplinary team, involving regular classroom teachers, a school psychologist, the special education teacher and parents, decided to place Blues Brother #1 in special education math and language arts and Blues Brother #2 in special education reading and language arts.

At the end of seventh grade, with BB#2 receiving reading under the Eclectic method, the brothers had the W-J scores as depicted in Tables 27 and 28. While both boys made gains in their basic skills, they made the greatest gains in the area of math. Upon studying all of the results, the multi-disciplinary team decided to place them both in the regular curriculum basic math class and in special education for both reading and written language.



Table 27. C.S. #3: 7th Grade Scores on W-J

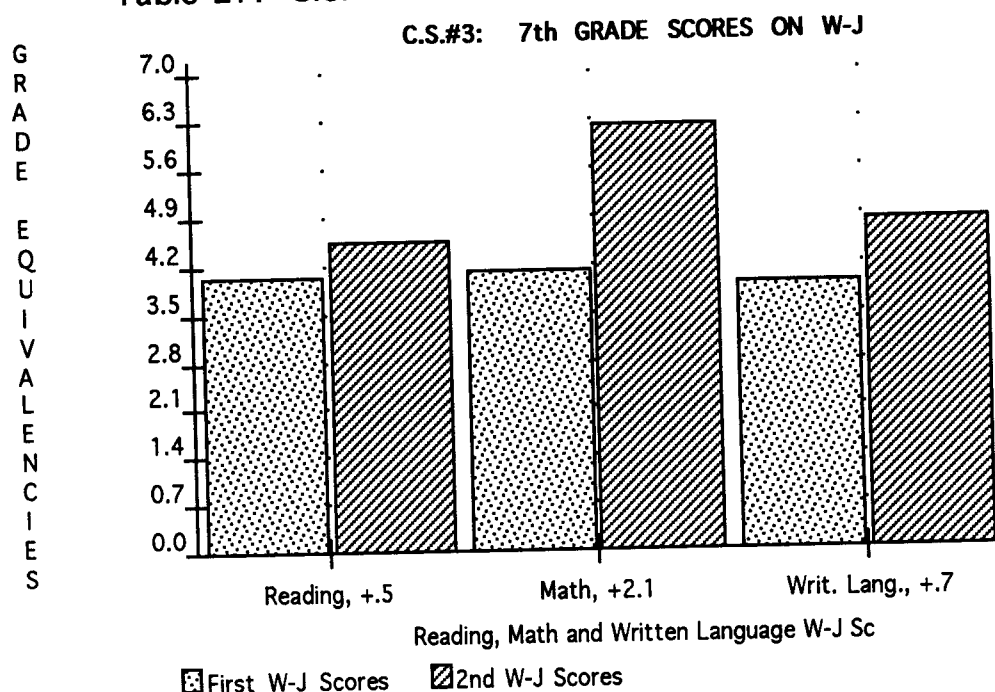
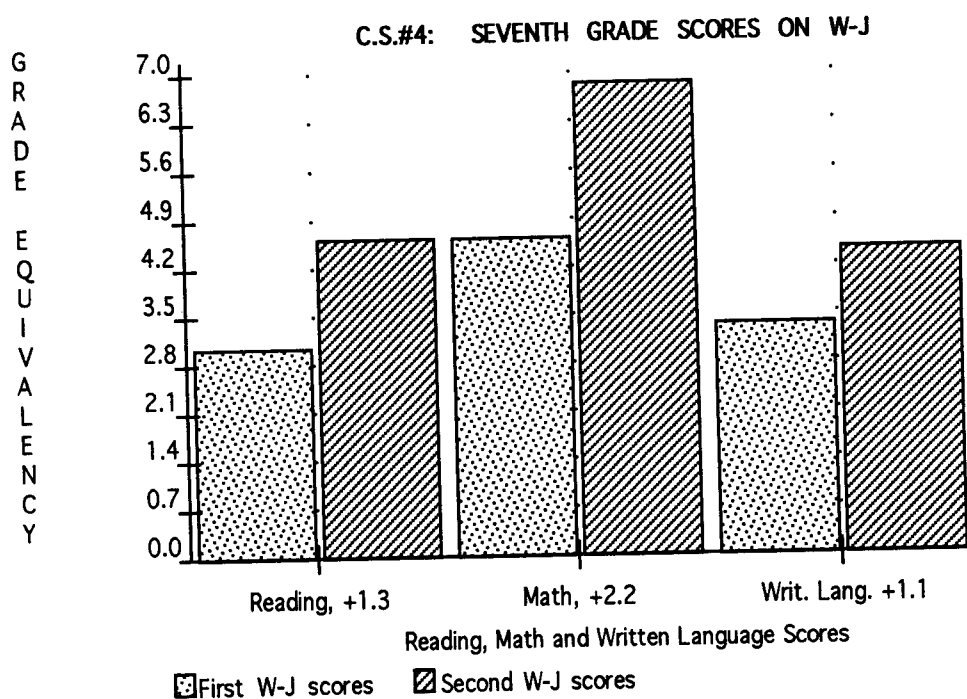


Table 28. C.S. #4: 7th Grade Scores on W-J



Accelerated Learning Instruction:  
Grade 8

In eighth grade the Blues Brothers began the year with 6.2 and 3.3 scores on their respective W-J reading tests. These scores inexplicably indicated a five month gain for BB#1 and a seven month loss for BB#2.

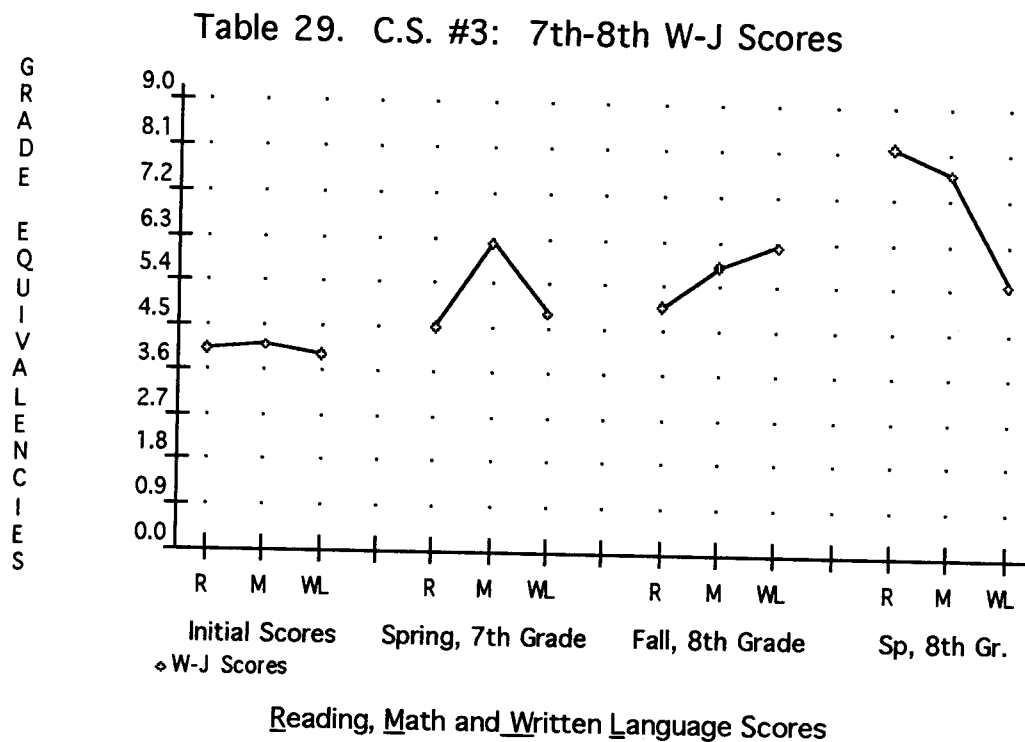
BB#1 had a four month loss in math and a 1.4 year gain in written language. BB#2 had a 2 month loss in math and a seven month gain in written language.

Both boys said they had written a couple of letters, but neither admitted to doing any reading or math over the summer, therefore their respective summer gains and losses could not be attributed to any specific intervention.

Initially both boys had a dubious reaction to the music portion of their accelerated learning reading class. However, they soon became affected by the enthusiasm of their female classmates and ended up saying this was their favorite class because it was fun. They actively participated in all the activities and helped create new vocabulary games to play. With the girls' support, they accepted penalization for saying

anything was "stupid" or "boring." They were also encouraged by the class to substitute saying "I don't know" with something creative. As they became more conversant, using their natural gifts of humor, imagination and sensitivity, they became more popular.

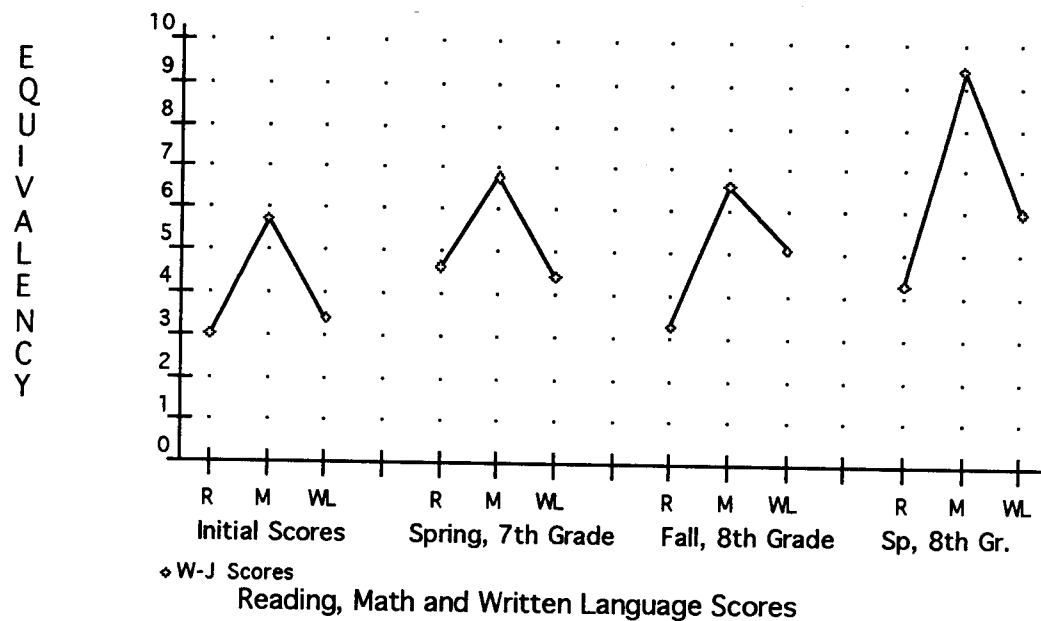
The greatest growth they experienced in reading, as shown by the scores obtained on the W-J, occurred during special education intervention. All of their W-J scores are diagramed in Table 29 and 30.



Blues Brother #1, C.S.#3, peaked highest in reading

with an 8.2 grade equivalency, only seven months away from the average scores of his peers. Blues Brother #2, C.S. #4, peaked highest in math, reaching a 9.4 grade equivalency, a five month lead over the average of his peers.

Table 30. C.S. #4: 7-8th W-J Scores



On report card comments, Blues Brother #2 showed personal growth and work habit improvement by the end of eighth grade. Regular content area teachers noted that he had developed "good work habits", was "responsible" and had shown "improvement on exams."

Blues Brother #1 did not fare as well with the comments such as: "Effort inconsistent", "Wastes time in

class", "Assignments or projects not handed in" and "Talks too much in class."

While their grades did improve since entrance into basic math and special education classes, the twins required a lot of motivational energy from the special education staff. They were placed in a study skills class that helped them with their content area assignments for the duration of their special education placement which began in December of their 7th grade year.

Their grade point averages went from .833 and .375, respectively, to 2.7 for both of them by the end of their eighth grade year.

Their attendance averages were relatively low throughout their schooling, 90 and 91% respectively. While at the Christian school their attendance averages were 90.5% and 91% respectfully. During seventh grade Blues Brother #1's attendance was 94% and during eighth grade it was 88%. Blues Brother #2's seventh grade attendance was 95% and eighth grade attendance was 88%.

Their attendance was affected by their parents' work

schedule. Because they worked as a family at their restaurant during the weekends, they often took weekdays off to go skiing during the winter. During one or two weeks in eighth grade they ended up with some serious detention after skipping school during the time their parents vacationed in New Orleans.

### Summary

#### *Behavior*

Under which kind of instructional program were The Blues Brothers reported with the highest degree of positive study habits and personal growth?

Throughout their elementary school career they attended a Christian school where the major instructional intervention was called Pace and involved an individualized workbook program. In fourth grade the twins had their highest academic gains and most positive report card comments for work habits, growth and development.

During seventh grade, upon transferring to the target school, both boys received negative comments regarding talking out in class, being irresponsible, not turning in work

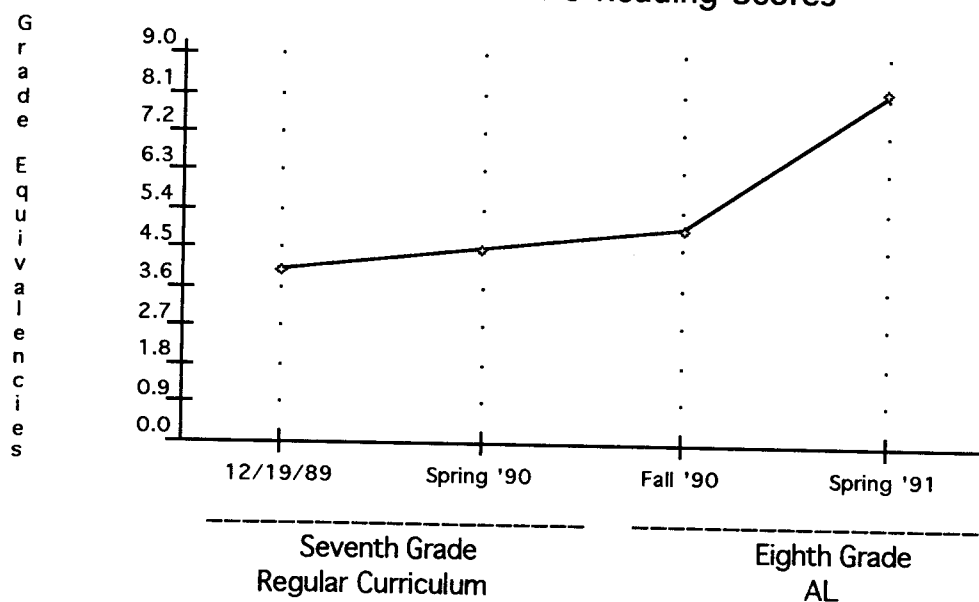
and failing exams. However, in eighth grade, during AL, Blues Brother #2 received positive comments indicating that he had developed good work habits.

### *Achievement*

Under which kind of instructional program, regular or special education (specifically Direct Instruction, Eclectic or Accelerated Learning) did The Blues Brothers experience their highest gains in reading?

The twins' specific W-J fall and spring reading test scores, recorded since their entrance into special education reading, are graphed on Tables 31 and 32.

Table 31. C.S. #3: W-J Reading Scores



Blues Brother #1, CS#3, was in a regular curriculum reading class in seventh grade and in a special education reading class in eighth grade. His chart shows steady improvement, peaking in his eighth grade year under AL.

Blues Brother #2, C.S.#4, indicates a more irregular and puzzling pattern. Though he made a gain under Eclectic instruction, he lost a lot of his seventh grade gain over the summer, never to recoup it through his work under AL.

Table 32. C.S. #4: W-J Reading Scores

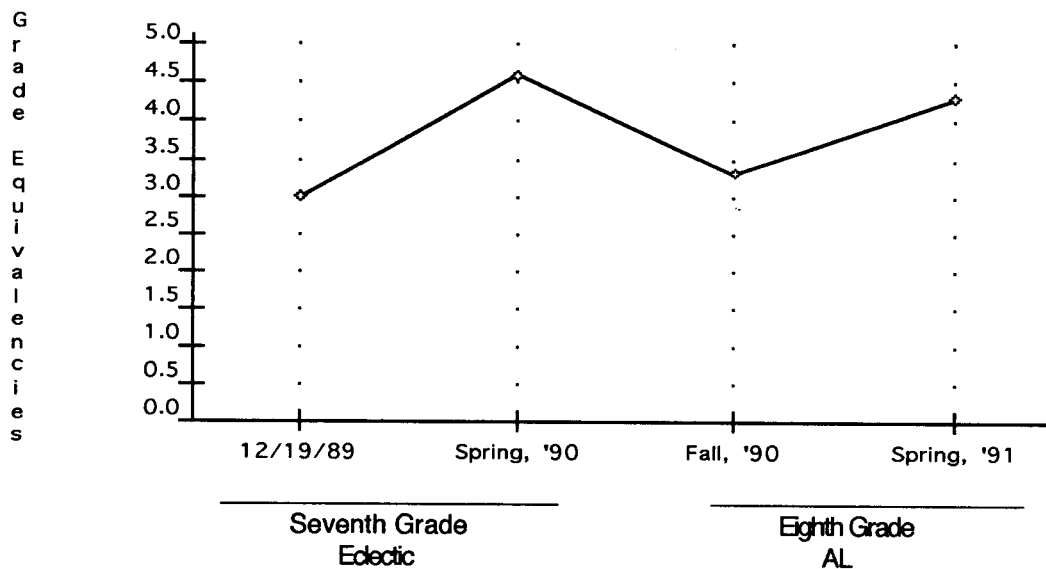


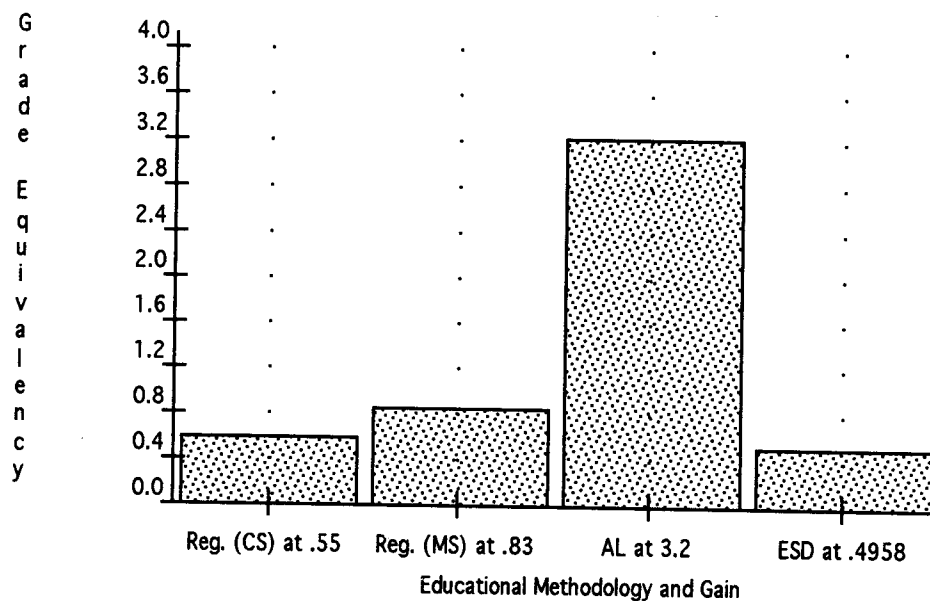
Table 33 and 34 depict The Blues Brothers average reading gains in relation to the kind of instruction in reading they received. The average expected gain is 1.0 in any



academic year.

Until he entered middle school, BB#1's approximate reading gain per year was .55. (Dividing 4.0, his reading grade equivalency at first W-J testing, by 7.3, his number of years of schooling at time of testing gives .548) BB#2's approximate yearly gain was approximately .41 using the same formula. These scores are further compared to the average gain documented by ESD #112's population of SLD students, .4958.

Table 33. C.S. #3: Gains and ESD #112's Average



On Tables 33 and 34, the regular curriculum at the

Christian school is noted with CS in parentheses while regular curriculum reading at the middle school is noted with MS.

On Table 33 Blues Brother #1 shows a dramatic increase in reading achievement gain during AL instruction compared to his regular program at the Christian school using the Pace Program. His gain under AL is also far above that documented by the ESD average.

Table 34. C.S. #4: Gains and ESD #112's Average

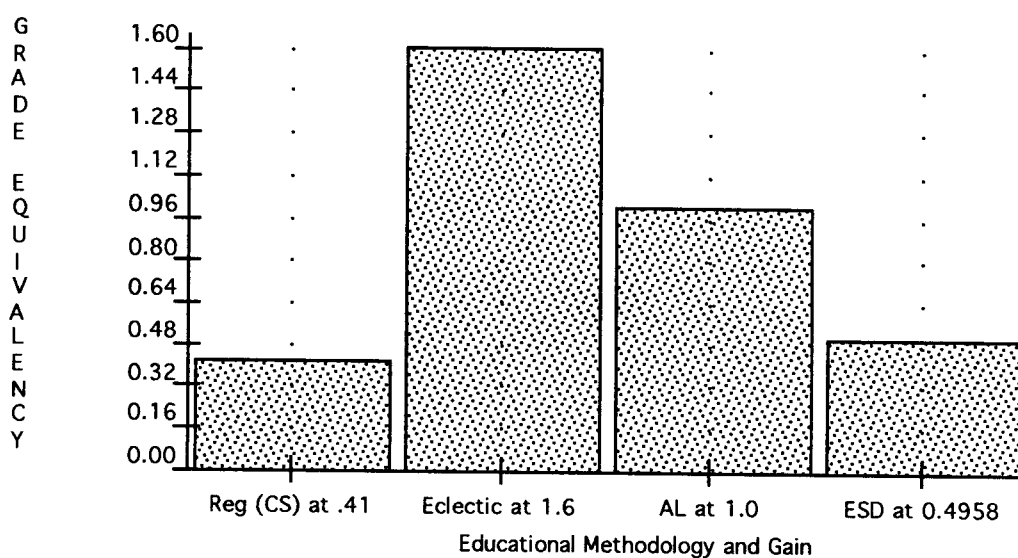


Table 34 shows Blues Brother#2 having a slightly lower average of achievement gains while at the Christian school than learning disabled students in the ESD. However, his

skills more than doubled while in the middle school special education program. During his first year, under Eclectic methodology, he gained one year and six months. During his second, under AL, he gained one year

In comparing The Blues Brothers' reading gains with those of their other basic skills, Tables 35 and 36 show that reading gains did not necessarily impact their other basic skill gains.

Table 35. C.S. #3: Comparison of W-J Gains

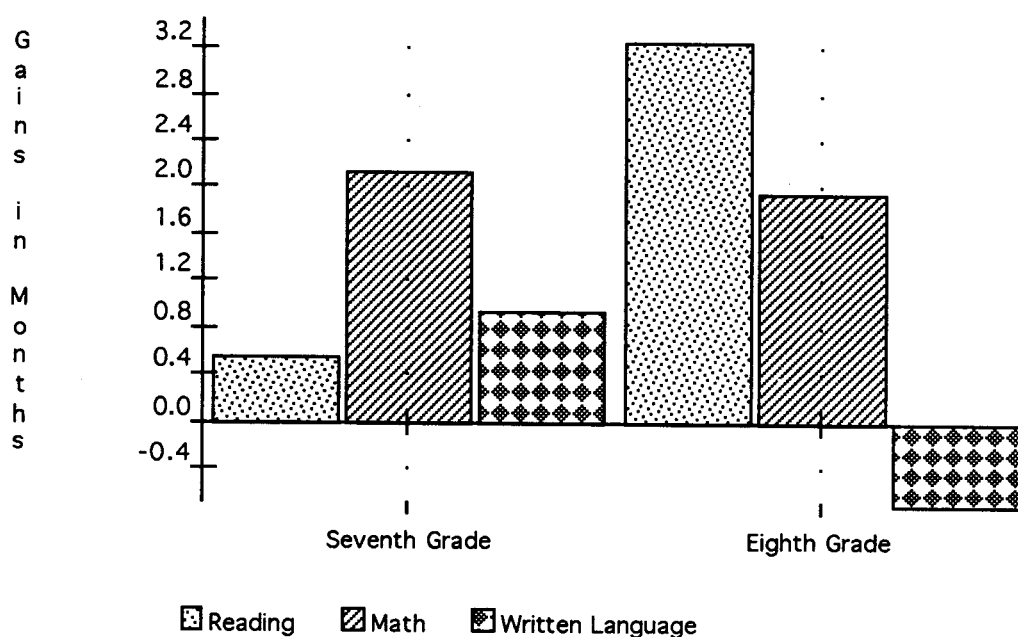
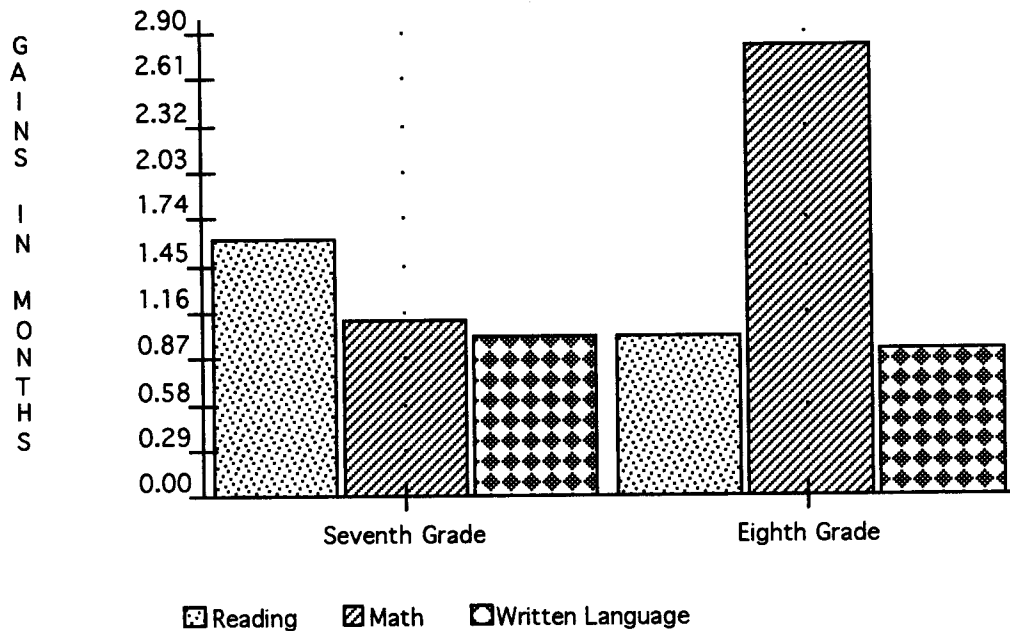


Table 36. C.S. #4: Comparison of W-J Gains



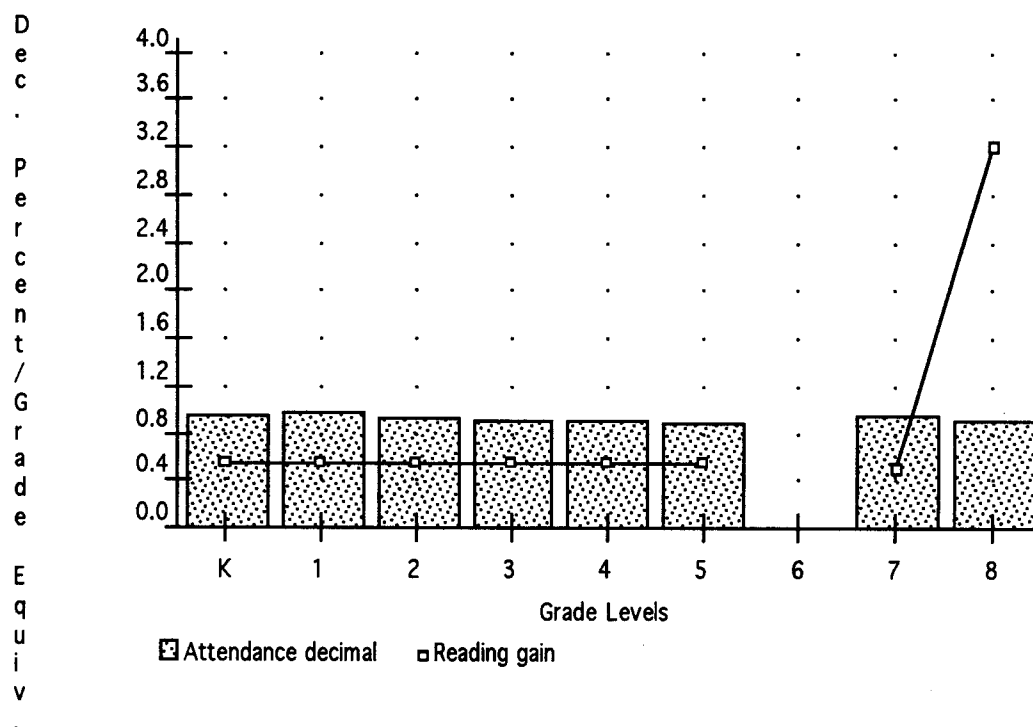
### *Attendance*

**Under which instructional intervention did The Blues Brothers exhibit the highest rate of attendance?**

Attendance percentage was investigated as a possible factor either affecting The Blues Brothers' reading gains or benefitting from specific interventions. For example, if their gains were lowest during times of decreased attendance, then attendance could be construed as negatively impacting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could possibly be

construed that the instruction was a factor in encouraging The Blues Brothers' absences. Table 37 and 38 graph The Blues Brothers attendance percentages.

Table 37. C.S. #3: Attendance & Reading Gains



Blues Brother #1 had his highest attendance average, 96%, when he was in the second grade. His lowest, 86%, was in the fifth grade. His achievement, as documented on the W-J, was highest in eighth grade when his attendance was the lowest.

Blues Brother #2 had his highest attendance average, 96%, in the third grade and his lowest, 84%, in the sixth

grade. His attendance is juxtaposed to his reading gains in Table 38.

Table 38. C.S. #4: Attendance & Reading Gains

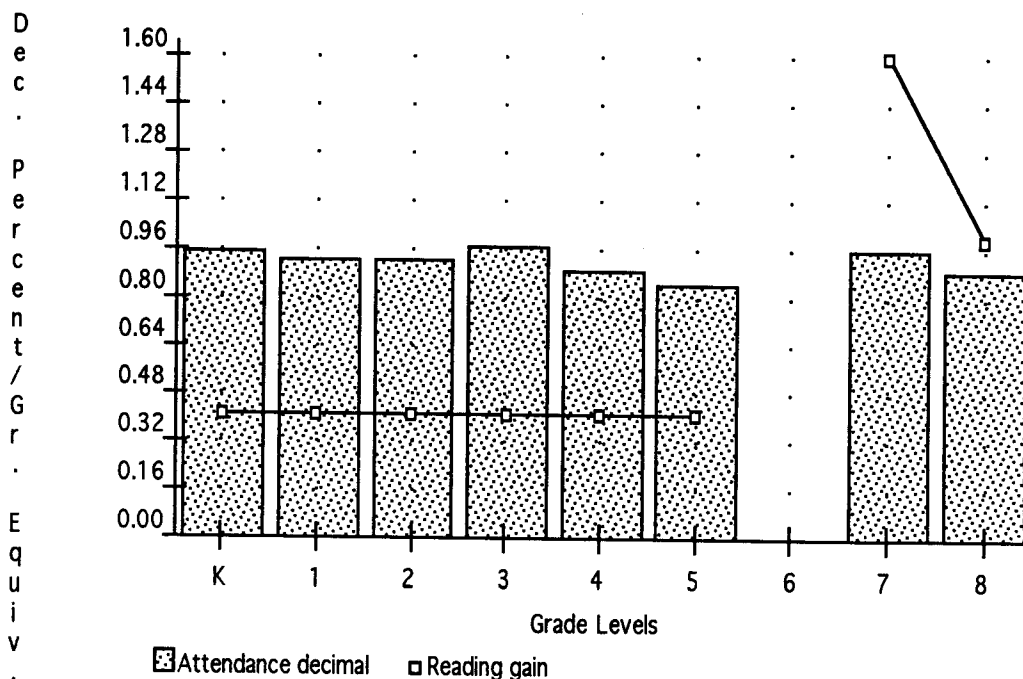


Table 38 shows that at a time of high comparative attendance, 95%, BB#2 made his highest gains on his W-J reading test. When his attendance dipped to the 88% level his gain was less.

For Blues Brother #1 attendance may not necessarily be a factor in his reading gains. However, for Blues Brother #2 it may have been. There simply aren't enough data with W-J scores for either boy to form a clear pattern.

*Academic*

Under which instructional intervention did The Blues Brothers have the highest g.p.a.?

Because both boys were involved in a self-paced individualized instructional program in their first seven years of schooling, grade comparisons are limited. While they were often on the Christian school's honor role, their standardized test scores showed below average achievement. Their grades were in percentiles based on the average score of the workbook lessons they had completed at school. No set number of expected lessons was identified for each grade level on their report cards.

When they entered the public middle school they received their first grades. Using this information their grades are depicted on Tables 39 and 40. Noted beside their grade level is the type of reading instruction they received.

C.S.#3, Blues Brother #1, improved his yearly average by approximately six points after he began special education classes. His improvement was a little lower the second year, under AL reading instruction; but, it was stable.

Table 39. C.S. #3: GPA and Reading Methodology

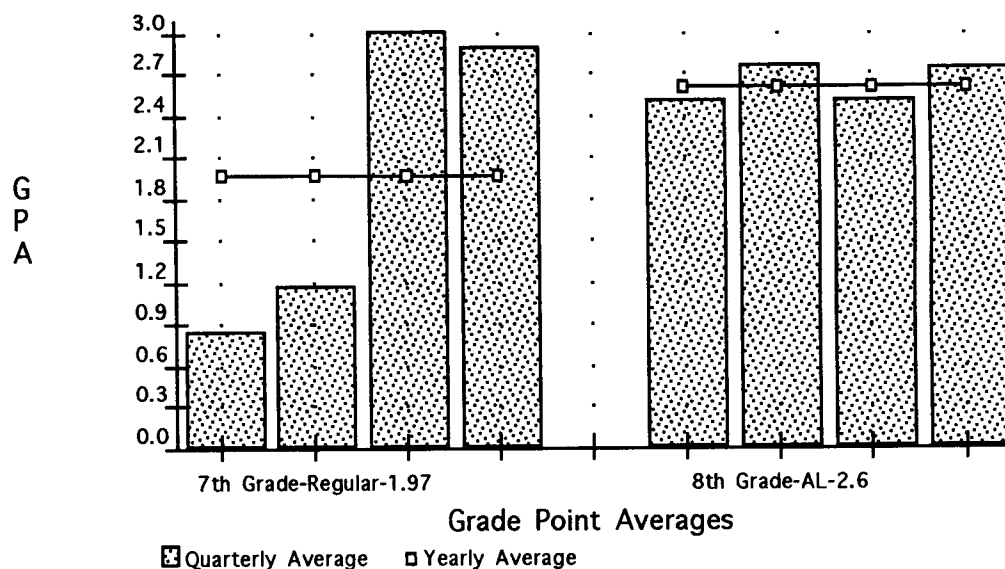
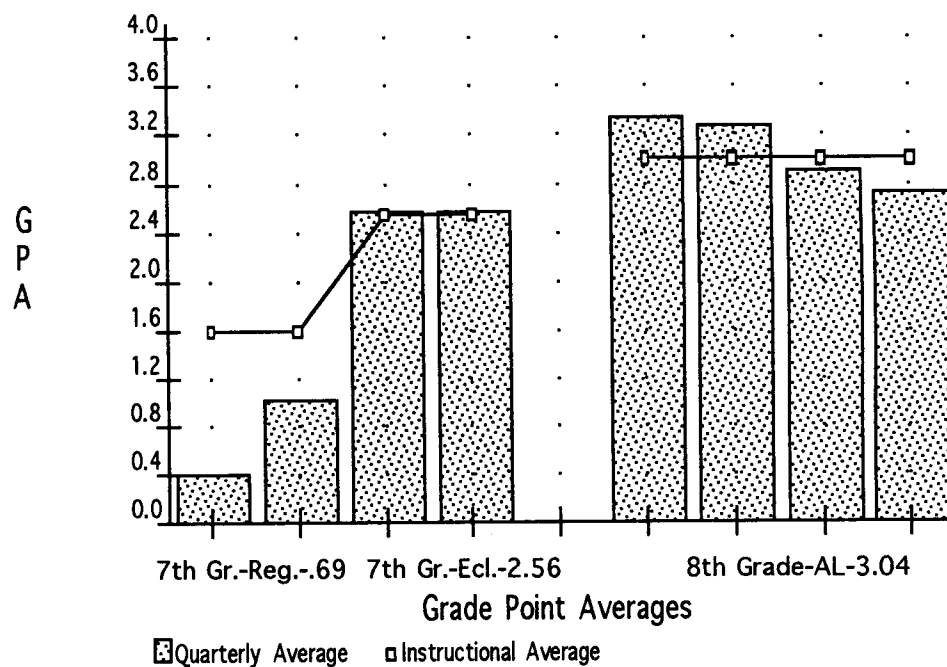


Table 40. C.S. #4: GPA and Reading Methodology



On Table 40, Blues Brother #2 was not placed into special education until three weeks before his second quarter



report card, so his seventh grade year is divided by time in the regular curriculum and time in Eclectic instruction for special education reading.

Like his brother, his grades stabilized at a higher average after special education intervention. During AL he received his highest g.p.a.

### *Student Attitude*

**What were the most common major factors The Blues Brothers gave for their achievements in reading?**

Blues Brother #3, in an interview 1/6/92, saw his achievement gain graphs and said he thought he had improved under AL because "There were not as many students to distract me" and he got "lots of help from the teacher." He said music, activities, a small group, motivational movies, instruction in comprehension, drama, reading aloud, independent work, homework, lots of drill, contests, individual attention and his desire to be promoted to a higher reading class were all factors that helped him achieve under the AL method. He said he thought he could succeed in the

regular reading classroom if it was a small class with a strict teacher. He also thought tutoring, dramatics, games, and activities would help.

Blues Brother #2, having made his greatest gains under the Eclectic method, said he felt he had gained the most under the Eclectic method because it was a big change from the kind of class he had had in the Christian school. He felt the smaller class size and reading out loud in class were the biggest factors in his success. Other things that he felt contributed to his gains under Eclectic instruction included motivational movies, instruction in comprehension, independent work, the teacher's personality ("strict but child-like"), the materials used (he liked them), help at home, games, contests, structured class program, phonics instruction, individual attention and the desire for promotion into a higher reading class. He felt the he could succeed in a regular reading class if the teacher was nice, the class size was small and the reading material was good.

### Conclusion

The Blues Brothers received their most positive

comments for study habits and personal growth during fourth grade while they were attending a Christian school using the Pace individualized, programmed instructional method.

It is evident that Blues Brother #1 experienced his highest gain in reading under Accelerated Learning. His AL gain was more than six times higher than any other gain he had made under other methods as well as being more than six times higher than the ESD average.

Blues Brother #2 experienced his highest gain in reading under the Eclectic method. It was a little over three times higher than the ESD average and more than 50% better than the AL gain.

Both brothers experienced their highest g.p.a.'s while receiving AL reading instruction.

Blues Brother #1 felt that he had gained the most under AL because it was a small class and he got lots of teacher help. He felt the interactional aspects of AL helped him the most.

Blues Brother #2 felt he gained the most under DI because it was a big change from the Pace method he had

grown bored of at the Christian school. He also cited many of the Eclectic strategies and techniques, like motivational aspects and games, that are similar to AL but absent in DI.

Both boys felt they could succeed in a regular reading classroom, especially if the class size was small.

## Case Study #5: Bob Boeing

### Description

Subject #5 is a clean cut, goodlooking boy who comes from an Apostolic Lutheran family where he was raised without exposure to TV, radio or written media at home. He has strong values, is responsible and well liked. He has a normal I.Q., as measured by the Wechsler Intelligence Scale for Children-Revised. He has been enrolled in the same school district throughout his school career.

His mother reports that he is a mechanical genius. One Christmas his parents gave him a box of motor parts. He spent his vacation putting the motors together. Because of this mechanical interest, he is identified as Bob Boeing for the rest of this report.

### Regular Curriculum

Bob Boeing entered kindergarten in 1982 and had perfect attendance. On his report card he received comments "Does well" and "Satisfactory" for all items listed under work habits and social development. However, under readiness development he had "Needs improvement" for recognizing

letters, color names, coins, and naming the seasons, his birthday and left and right. He also didn't know his address. In first grade his work habits slipped. Though he received high marks for being courteous and respectful, he needed to improve his self control, independent work ability, and efficient work skills. He was referred for and entered the state funded Remedial Assistance Program (RAP) for reading.

The RAP teacher uses an eclectic approach, individualizing some work and teaching using small groups for other work. Parent volunteers listen to students read from high interest-low level books. When they completed a book the students choose a paper "scoop" of ice cream. At the end of each quarter real scoops of the chosen flavors were dished out to each student.

In second grade Bob's teacher recommended retention. Bob's skills were not developing. Although he showed "interest and talent in putting things together..." and excellent personal growth, interacting positively with peers, respectful and using self control in the classroom, he was not progressing at an acceptable rate in math, spelling,

language arts or reading. His parents declined to have him retained but allowed him to stay in RAP Reading.

In third grade he was again referred for retention despite his continued "great effort". His parents wrote a letter to the school accepting retention. However, his second third grade report card showed continuing difficulty in all academic subjects.

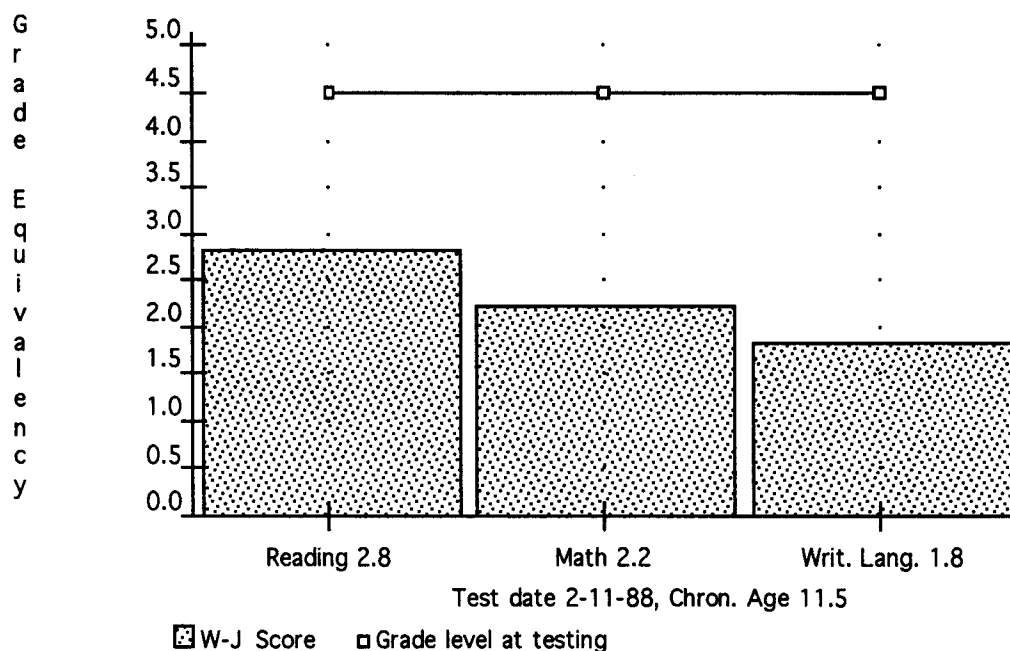
By fourth grade his study skills were very low. Though socially he was cooperative, courteous, kind, respectful and a very good group activity participant, he had trouble with directions, time management, and working independently. By February his teacher referred him for special education testing. See Table 41 for his initial W-J scores.

Though Bob qualified as learning disabled, his parents declined special education placement. They did not want him to experience the stigma they perceived special education students felt and they did not believe his skills were as low as the W-J test results indicated.

Using the W-J scores depicted in Table 41, it can be calculated that his reading gain in 5.5 years of regular

(inclusive of RAP services) reading instruction was approximately 5 months a year. (2.8 grade equivalency divided by 5.5 years in school equals .51).

Table 41. C.S. #5: First Scores on W-J



In fifth grade, due to a program cutback, Bob received no RAP reading services. However, his homeroom teacher adapted classwork, marking no grades on his report card the first quarter. As the year progressed, grades were gradually added for succeeding quarterly reports. By last quarter all grades but math were awarded. His end of the year g.p.a. was 3.3 and all items in study skills and social development were



marked as excellent except for "Independent problem solving" he earned a "Satisfactory" and for "Completes assignments on time" he received a "Good".

Eclectic Instruction in Special Education:  
Grade 6

In sixth grade Bob Boeing was once again referred for special education. This time his parents gave permission for special education placement for reading, math, language arts and spelling. Since his last W-J testing, approximately one and half years previously, he had gained 5 months in reading skills which computes to a yearly average of approximately three months for each academic year (.5 grade equivalency gain divided by 1.6 years equals .3125).

Bob entered special education in November and participated fully in all aspects of the Eclectic reading class. He made a three month gain in reading, a one year gain in math and a three month gain in written language in approximately 7 months. His reading achievement averaged out to almost a four month (.375) average gain under the

Eclectic method.

In sixth grade Bob's first quarter's g.p.a. was a 2.667, his first semester's a 2.83, his third quarter's a 3.0 and his second semester's a 2.857. His two semester grade points averaged a 2.8 for the year. The comments on his report card noted that he was "trying very hard" and showed "good effort".

Accelerated Learning Instruction:  
Grade 7

In the fall of seventh grade Bob's W-J scores showed that over the summer he had gained two months in reading, lost eight months in math and lost five months in written language skills.

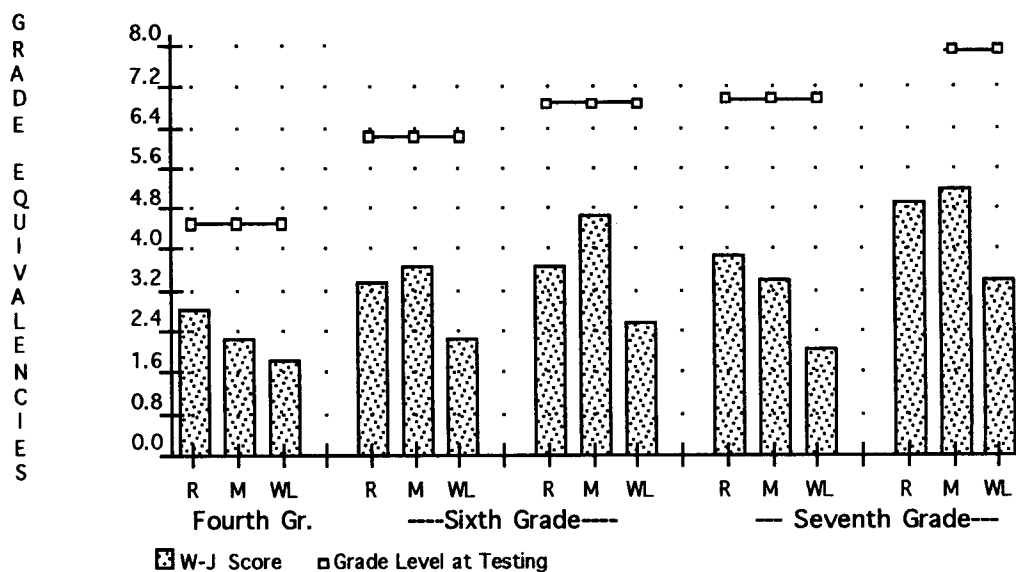
Bob reacted a little dubiously at first to the music and relaxation sections of the AL techniques. However he was always cooperative and participated enthusiastically in all of the activities. Soon he began reading with expression for the first time.

Bob's spring W-J scores indicated he was up to a 4.9 grade equivalency, a one year and one month gain. In math he was up to 5.1, a one year and seven month gain, and in written

language he was up to 3.4, a one year and fourth month gain.

Though reading was the only class that utilized the full AL approach, all his skills dramatically improved, as diagrammed in Table 42.

Table 42. C.S. #5: 4th-8th Grade W-J Scores



Reading, Math and Written Language Scores

Bob Boeing's report card grade point averages for seventh grade were 3.125, 3.375, 3.25 and 3.0 for last quarter. Using his semester grade points, his overall yearly g.p.a. was 3.1875.

## Summary

### *Behavior*

**Under which kind of instructional program was Bob Boeing reported with the highest degree of positive study habits and personal growth?**

Except for fourth grade, while he was in the regular curriculum for all his classes, Bob's report card notations indicated that he showed outstanding effort, responsibility and respect for others throughout his school career.

### *Achievement*

**Under which kind of instructional program, Regular or special education (specifically Direct Instruction, Eclectic or Accelerated Learning) did Bob Boeing experience his highest gains in reading?**

Bob Boeing's greatest reading gains were realized in seventh grade under AL reading instruction. His specific W-J fall and spring reading test scores, recorded since his entrance into special education in November of his sixth grade year, are graphed on Table 43.

Table 43. C.S. #5: W-J Reading Scores

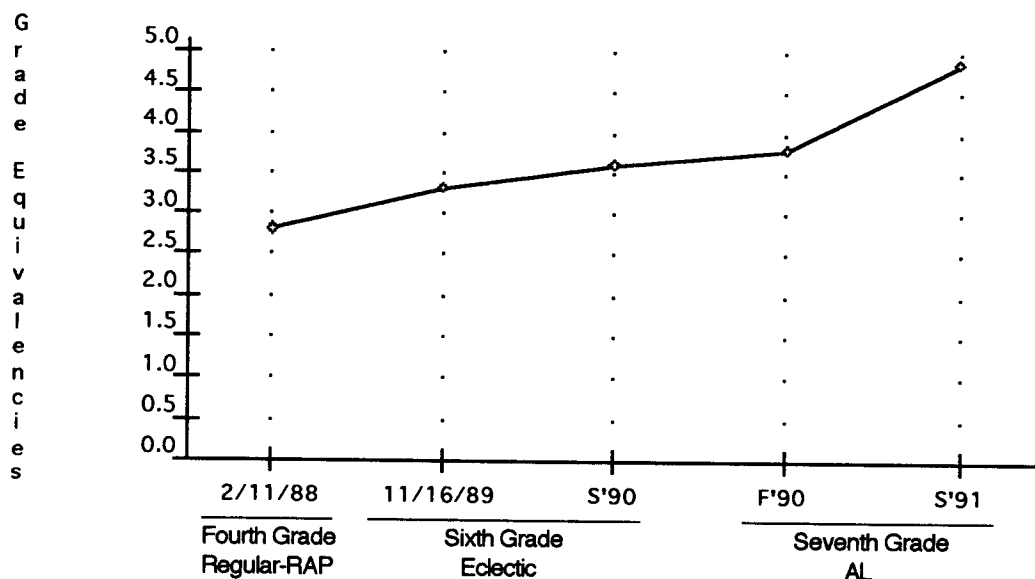


Table 44 depicts Bob Boeing's averaged reading gains in relation to the kind of instruction in reading he received. The average expected gain is 1.0 in any academic year. The average gain of approximately four and a half (.46) months a year for his first seven years and two months of school was determined by dividing his sixth grade W-J grade equivalency score, 3.3, by the number of school years he had completed, 7.2, beginning with kindergarten. Regular instruction in reading, noted on Table 44, includes Remedial Assistance Program (RAP) services because it is considered part of the regular school curriculum.

At his second testing in November of 1989, Bob had

completed approximately one and a half more months of school, with primary intervention through the regular curriculum and a few months in RAP reading. During this time he averaged approximately three months of reading gain per academic year. In special education, beginning in November of sixth grade, he advanced an average of four months in reading under Eclectic instruction. During his seventh grade year under AL he made one year and one month of growth in reading, his greatest gains.

Table 44. C.S. #5: Average Gains in Reading

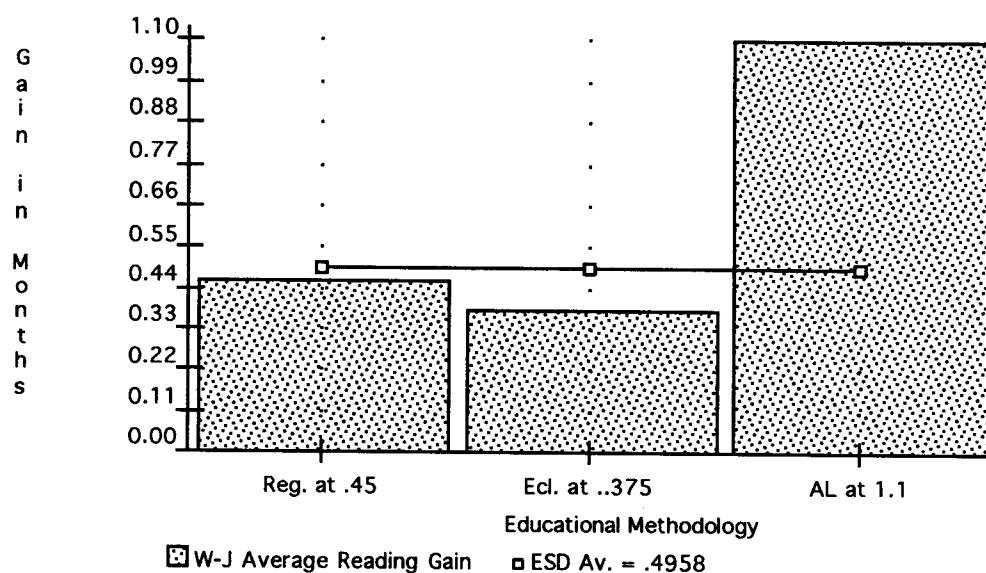
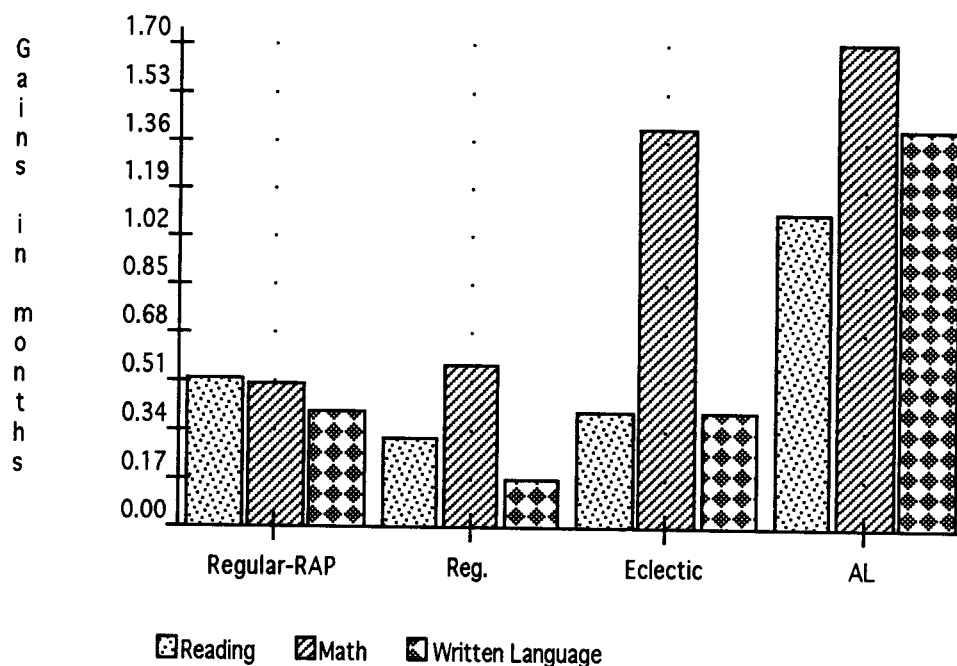


Table 44 also compares Bob Boeing's reading gains to the average yearly gain documented by ESD #112's population

of SLD students. Bob's gains while receiving reading instruction under AL are more than twice as great as the ESD's and any other method Bob experienced.

Table 45 compares Bob's reading gains with those of his other basic skills, as also addressed within his special education curriculum. His reading gains were most similar to gains in written language during each instructional intervention.

Table 45. C.S. #5: Comparison of W-J Gains



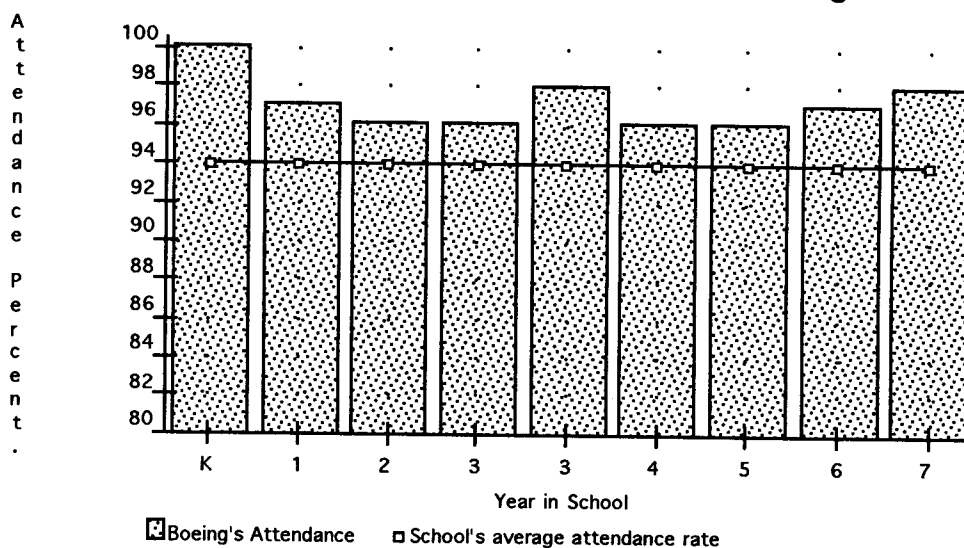
## Attendance

Under which instructional intervention did Bob Boeing exhibit the highest rate of attendance?

Table 46 graphs Bob's attendance percentages. His attendance was highest, at 100%, in kindergarten. His lowest attendance was 96% which occurred during second, third, fourth and fifth grades.

His average attendance for his school career so far is 97%, three points higher than the school's average of 94%. During regular and RAP instruction it was 96%. During Eclectic it was 97% and during AL it was highest at 98%.

Table 46. C.S. #5: Yearly Attendance Averages



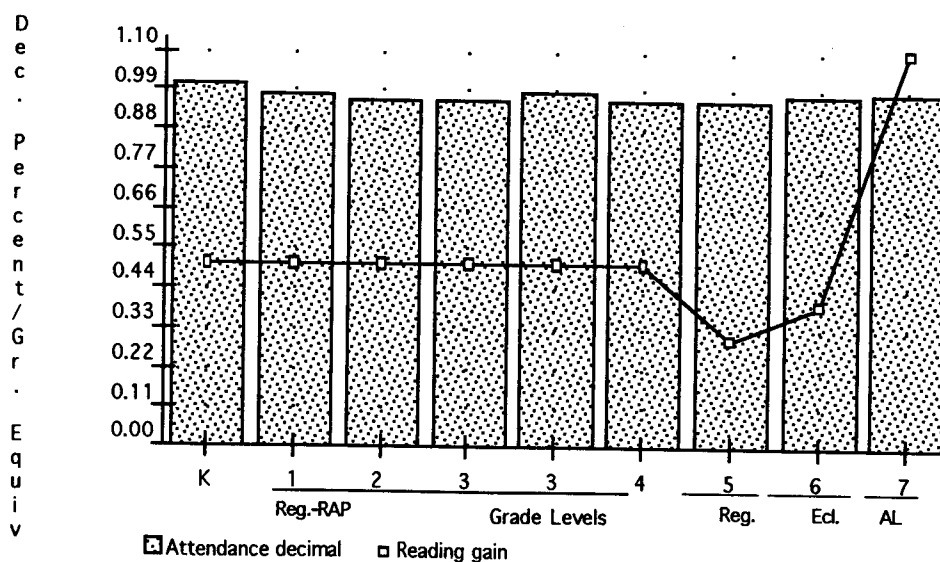
Attendance percentage was investigated as a possible



factor affecting Bob's reading gains. If his gains were lowest during times of decreased attendance, then attendance could be construed as affecting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could be construed that the type of instruction was a factor in encouraging Boeing's absences.

Table 47 displays the data which indicates attendance percentage along with a line graph that indicates reading gains. Furthermore, note that the .51 and .3 scores for K-4 and Grade 5 are only estimates based on Bob Boeing's first two W-J scores pre-entrance into special education.

Table 47. C.S. #5: Attendance & Reading Gains



When Bob's average reading gain was at its lowest, during fifth grade, and when it was at highest, during seventh grade, there were two percentage points (6 days of absences) of difference in attendance. However, as Bob's attendance remained fairly stable throughout his school career and as there seems no corresponding pattern between attendance and gain, it appears that neither reading gain nor instructional methodology may have necessarily had a strong impact on attendance.

#### *Academic*

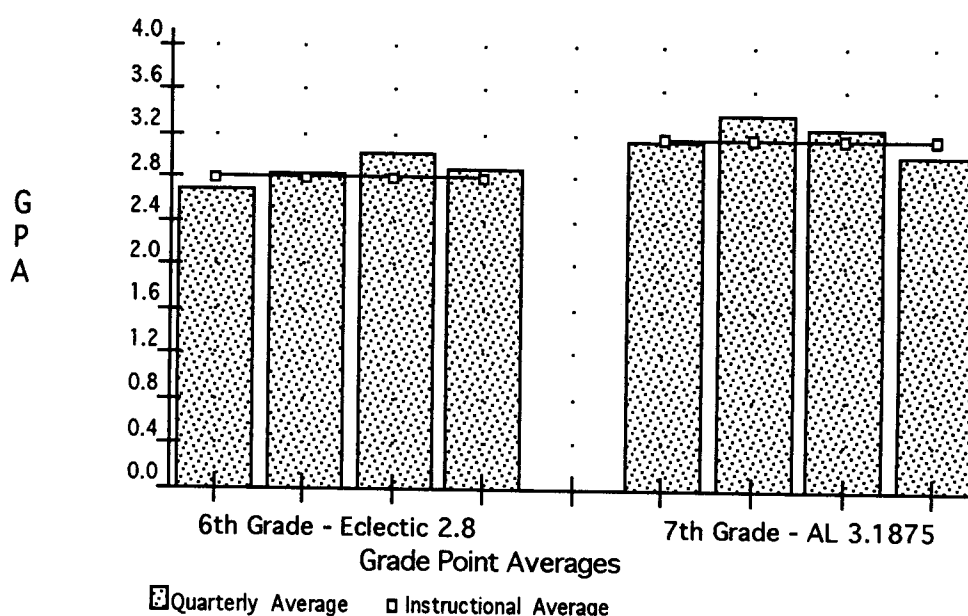
**Under which instructional intervention did Bob Boeing have the highest g.p.a.?**

There is no information in Bob Boeing's records regarding teacher adaptation of assignments or expectations in grading. Elementary school grading was done with a check or S for Satisfactory system. The only records that can be compared are those with letter grades during his sixth and seventh grades.

Bob's lowest g.p.a., 2.67, occurred first quarter of sixth grade. His highest, a 3.375, occurred during second quarter of

seventh grade during AL instruction. The straight lines on Table 48 illustrate the g.p.a. average for each year. In sixth grade the average was 2.8 and in seventh, under AL instruction, it was highest at 3.1875.

Table 48. C.S. #5: GPA and Instructional Method



### *Student Attitude*

What were the most common major factors Bob Boeing gave for his achievements in reading?

When asked why he thought he made his greatest gains in reading under Accelerated Learning, Bob said "I wanted to know about things, like newspapers. I read more out of class

at night. I wanted to know more." In response to an orally administered questionnaire he said that relaxation, activities, a small group, the use of suggestion, instruction in comprehension, drama, reading aloud, motivational strategies, homework, a funny teacher, materials he liked, help at home, games, contests, phonics, individual attention and a fun class were all factors that helped him learn more.

When asked what circumstances would best help him succeed in reading in the regular classroom he said, "If I got a lot of homework..." and "...if I could take longer to read it." He also thought he could succeed in the regular classroom if AL, dramatics, games, activities and reading aloud were used to help the students learn.

Bob concluded his interview by volunteering the following comment, "The most help is visualizations so you can relax first."

### Conclusion

No instructional method appeared to influence Boeing's report card comments on personal growth and study habits. Aside from some small problems in fourth grade, they

remained high throughout his school career.

It is evident that Boeing experienced his highest gains in reading under Accelerated Learning. His gains were more than twice as great as the ESD's and any other method that Bob experienced.

As Boeing's attendance rate was consistently stable and higher than the school's average throughout his school career, no pattern appeared to suggest that attendance either impacted reading gain or was affected by reading methodology.

Bob experienced his highest grade point while receiving Accelerated Learning for reading instruction.

Bob's own observation was that during the year of his highest reading gain he found himself wanting to know more. His comments indicated that he felt AL techniques helped him to learn the best and could help him succeed in the regular classroom.

## Case Study #6: Huck Finn

### Description

Subject #6 is a skinny, freckle-faced boy who is friendly, happy and easy going. He hides his work, plays games of chase, and sneaks bags of candy into the classroom to distribute secretly, always with a playful twinkle in his eyes.

For the purposes of this study, his identification will be Huck Finn.

Huck has lived in the same house and has attended school in the same school district for his entire academic life. He has a normal I.Q. as measured by the Wechsler Intelligence Scale for Children-Revised.

Huck was first referred for special education services in kindergarten, November, 1983. He was served through a home intervention team. No records of this intervention are on file.

### Instruction in Special Education: Grades K-4

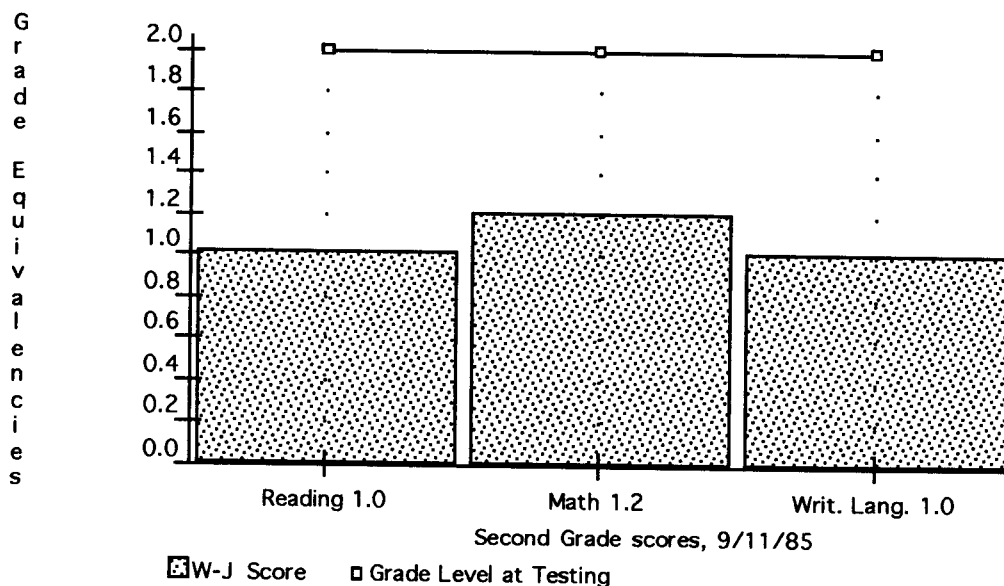
Huck Finn's special education reading experience in elementary school began with Englemann and Hanner's

Reading Mastery direct instruction program. However, his special education teacher found that the program didn't work and switched him to a similarly taught program called the Stevenson Language Skills Program (Stevenson, 1978). Like Direct Instruction, the teachers' manual gives a script, visuals and plan to follow for each lesson. He was grouped with one or two other students. An instructional aide led his group lessons.

The Stevenson Language Skills Program (SLSP) emphasizes learning by association. For example, when learning the letter "p" a pipe is presented or drawn and a "p" is outlined in the bowl of the pipe. Word families and patterns, phonics, kinesthetic experience and visual picture associations are integral to each lesson. "Silly Sentences" follow each lesson giving the students practice in reviewing their increased vocabulary. Though SLSP also expected cursive and typing lessons, these objectives were not included in Huck's lessons.

His first Woodcock-Johnson scores, depicted on Table 49, were obtained in the fall of second grade.

Table 49. C.S. #6: First Scores on W-J



Huck Finn had difficulty with academic work in every subject area. When he wasn't in the special education resource room he had a peer tutor or was given specially adapted assignments in the regular room. His first grade report card noted "Needs Improvement" for every single content area. Despite special education intervention, he was retained in second grade with the comment, "After talking with [him] and his parents, we have decided to give [him] another year to develop his reading and math skills as well as confidence in his abilities."

Huck's third and fourth grade regular academic report



card notations show that when he was included in social studies or science he worked with a partner or helpers. However, the bulk of his day was spent in the special education resource room.

By the end of fourth grade his W-J reading score was 2.3, a gain of one year and three months since his first full W-J testing in the fall of his first time in second grade. This averages out to approximately three (.325) months of reading gain for second through fourth grades. His elementary gain in math was almost four months (.3877) a year and his written language gain was approximately three months (.306) a year.

Throughout his elementary years Huck's report cards noted that improvement was needed in listening, time management and self-control. His fourth grade teacher wrote on his report card that he "wastes time when he is in the room. He does not work on his assignments unless he is pushed." and "He spends much of the time talking or bothering others around him. ...[He] can do so much better but he doesn't care to try." On a positive note, his third grade teacher wrote that he "is a sensitive and caring boy. He doesn't like

to see people hurt."

Eclectic Instruction:  
Grades 5-6

Huck entered the middle school with a W-J 2.0 grade equivalency in reading.

His fifth grade teacher called a mid-year multi-disciplinary meeting and requested that Huck be instructed in science and social studies in addition to reading, math and language arts through special education services. The teacher reported that Huck lacked the maturity and academic skills to function beneficially in the regular classroom setting.

For the first time the middle school organized a small class for students having difficulty with science and social studies concepts and reading skills. Huck responded enthusiastically to the increased attention and simplified subject matter. He had little contact with non-special education fifth grade peers except for P.E., homeroom time, involvement in his homeroom's special activities and work catch-up time at the end of the day.

Huck was also an enthusiastic student under Eclectic instruction methodology for reading. He participated eagerly in all the group activities and he showed 100% literal comprehension of all that he read.

By June his reading score had increased to a 3.1 from a 2.0. In math he increased to a 4.0, a gain of one year and four months. In written language he lost one month, ending up at 3.1.

Huck earned a 2.3 grade point his first quarter in fifth grade for special education reading, math, language arts, spelling and adapted regular curriculum science. First semester he earned a 2.0 which included adapted grades in both regular curriculum science and social studies. Third quarter, after being put into special education science and social studies, Huck earned a 3.0. Second semester he earned a 2.75. His total yearly average, based on semester grades, while receiving Eclectic instruction in reading, was 2.35.

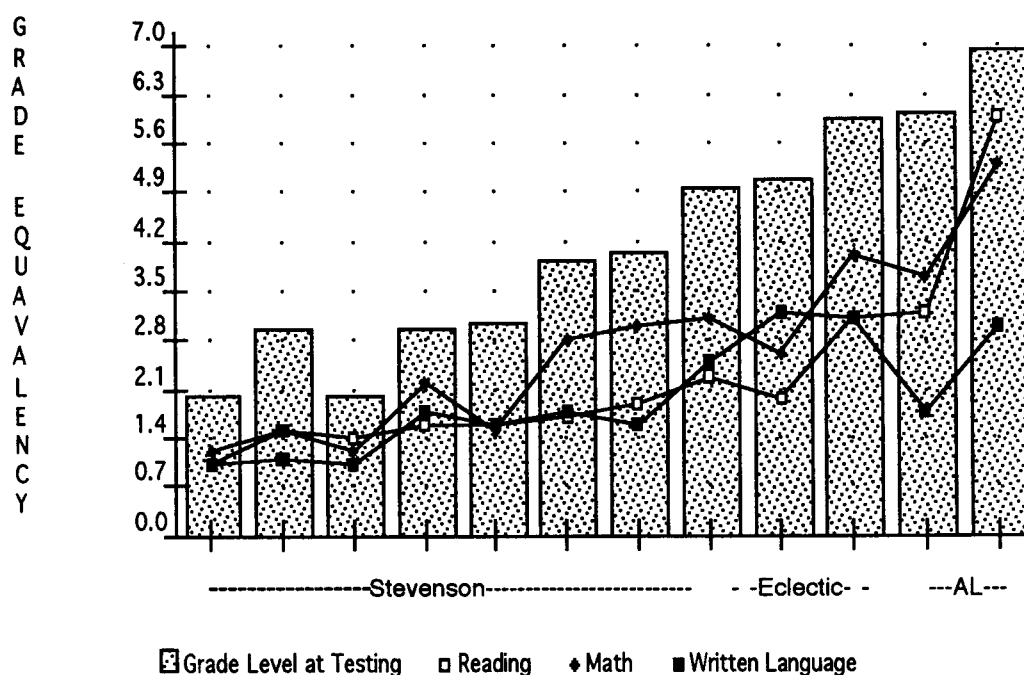
Accelerated Learning Instruction:  
Grade 6

In sixth grade Huck began the year with grade equivalencies of 3.2 in reading, 3.7 in math and 1.8 in written language. His most stable scores were in written language, except after sixth grade when he made his greatest gains. His most consistently erratic scores were in math.

During Huck's sixth grade year, under Accelerated Learning instruction in reading, he improved his reading score by three years and eight months, his math by one year and six months and his written language by one year and two months. His scores are diagrammed on Table 50 with corresponding information given on his grade level and instructional reading method. His math and reading scores made the most improvement during AL instruction.

Huck responded well to all the components of AL, putting his head down on his desk, closing his eyes and really relaxing during the visualizations. He was enthusiastically competitive during all the games and became a leader in mastering them.

Table 50. C.S. #6: 2nd-6th W-J Scores



However, other parts of his sixth grade year were trying. He began sixth grade social studies and science instruction in his homeroom; by January his homeroom teacher reported that Huck was not turning in any work and was skipping class by simply sneaking out the door when the teacher wasn't looking. Though Huck was given an opportunity to amend his ways, he did not. He was removed from regular education and put in special education for the entire day.

The resource room did not have enough classes to offer him full-time placement, so he spent the remainder of his

time in the self-contained classroom with more severely handicapped students who had multiple handicaps including cerebral palsy, behavior disorders and quadraplegia. There he received time to practice computer keyboarding. In the resource room a study skills class was added to his schedule. He reported on several occasions that he liked being in the self-contained room the best and he tried to get extra time to go there. However, he was very disappointed at the end of the year when he was excluded from his original homeroom's end-of-the-year functions.

His last sixth grade report card notations included "Has difficulty working independently," "Is trying very hard," and "Assignments or projects well done...and turned in on time." His first quarter g.p.a., with grades recorded only for special education classes (reading, math, language arts and spelling) was 2.5. For first semester it was 3.0, for third quarter (now including P.E.), 3.167 and for second semester 3.0. His sixth grade yearly average was 3.0.

## Summary

### *Behavior*

**Under which kind of instructional program was Huck Finn reported with the highest degree of positive study habits and personal growth?**

Huck's report cards in kindergarten through fourth grade indicated that improvement was needed in most areas of social development and personal growth. He received the fewest negative comments in kindergarten and his second time in second grade, where he received reading, math and written language skills under Direct Instruction and Stevenson programs.

In sixth grade, under AL instruction, Huck completed the year with mostly positive comments. However, he was in full-time special education by this point and so the comments may not be comparable to those earned from a regular education teacher.

### *Achievement*

**Under which kind of instructional program, regular or special education (specifically Direct**

Instruction, Eclectic or Accelerated Learning) did Huck Finn experience his highest gains in reading?

Huck's specific W-J fall and spring reading test scores, recorded since second grade, are graphed on Table 51. This chart shows that Huck made his greatest gains in reading during his sixth grade year under AL reading instruction.

Table 51. C.S. #6: W-J Reading Scores

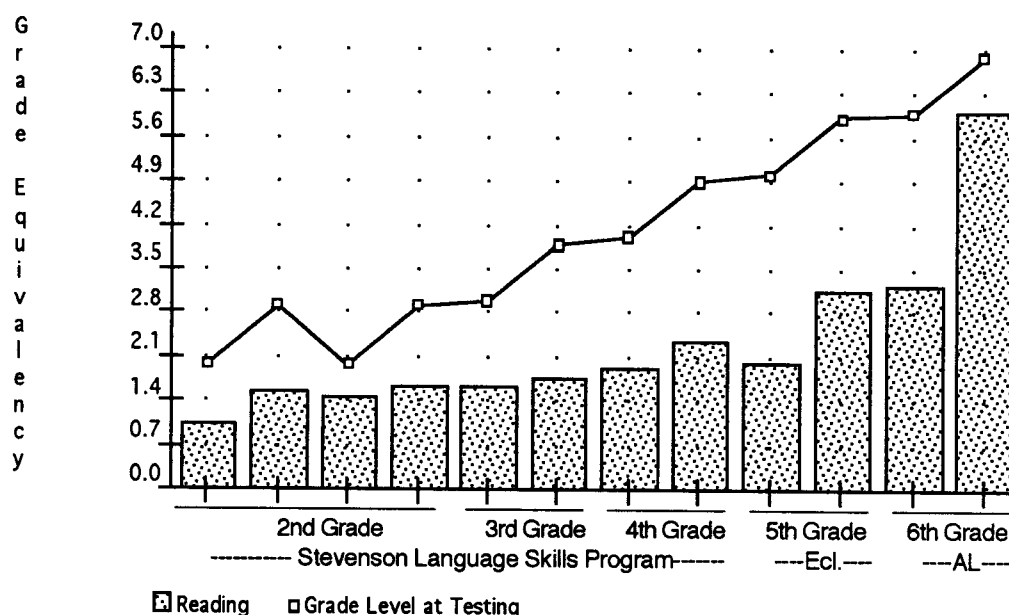


Table 52 depicts Huck's reading gains in relation to the kind of instruction in reading he received. The average expected gain is 1.0 in any academic year. From kindergarten through fourth grade, Huck gained two years and three months which averages to approximately three months (.33) a year



(2.3 divided by 7 = .33). While in Eclectic instruction he gained one year and one month in an academic year and while in AL he gained two years and eight months. Table 52 illustrates these averages in comparison to those of ESD #112's learning disabled student population.

Table 52. C.S. #6: Gains and ESD #112's Average

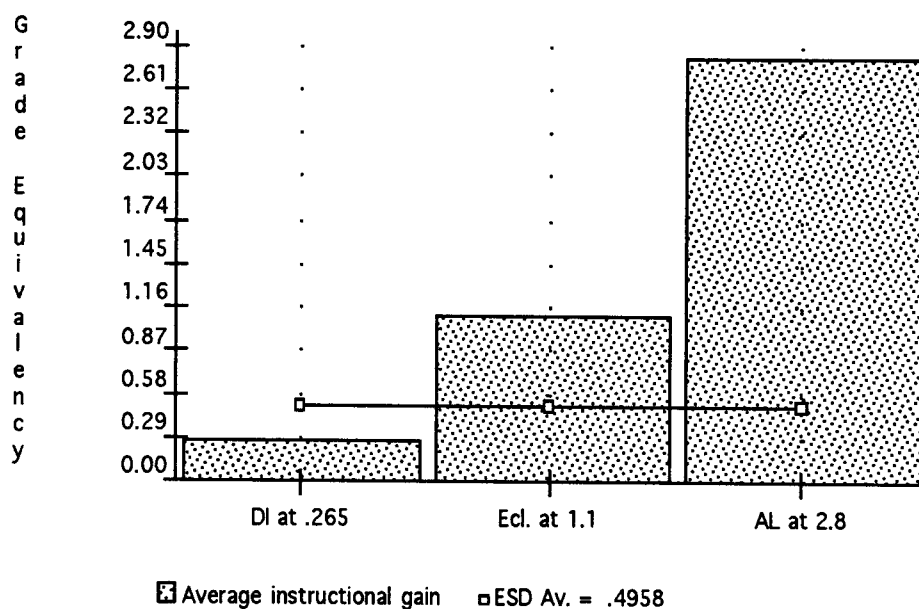
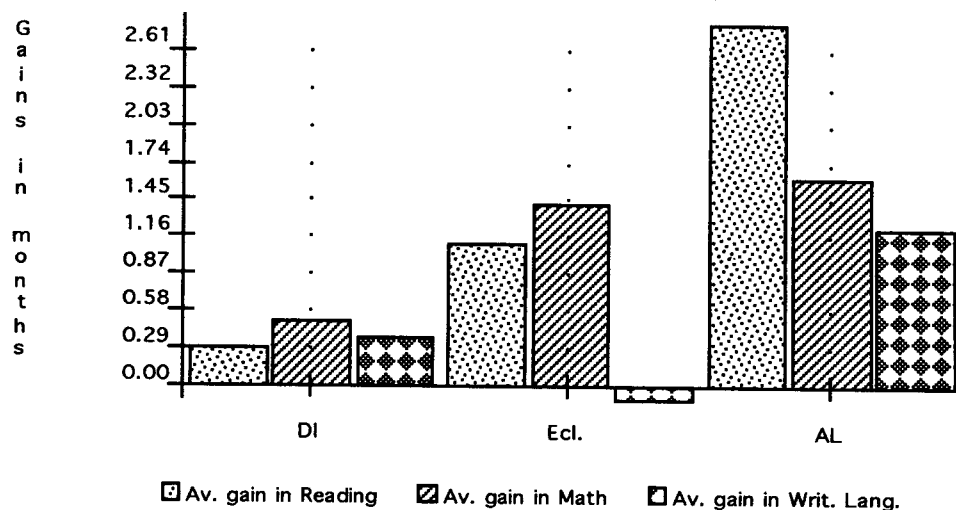


Table 52 illustrates the fact that Huck's reading gains under Eclectic were approximately twice the ESD average and more than ten times the Direct Instruction average. It also graphically illuminates the gains during AL, almost six times higher than the ESD average and almost nine times the gain experienced under Direct Instruction.

In comparing Huck's reading gains with those of his other basic skills, which were also in his special education curriculum, reading gains may have affected overall progress. As his reading ability increased, so did his math. Also, as illustrated in Table 53, while receiving AL instruction, he had his greatest gains in reading as well as in math and written language.

Table 53. C.S. #6: Comparison of W-J Gains



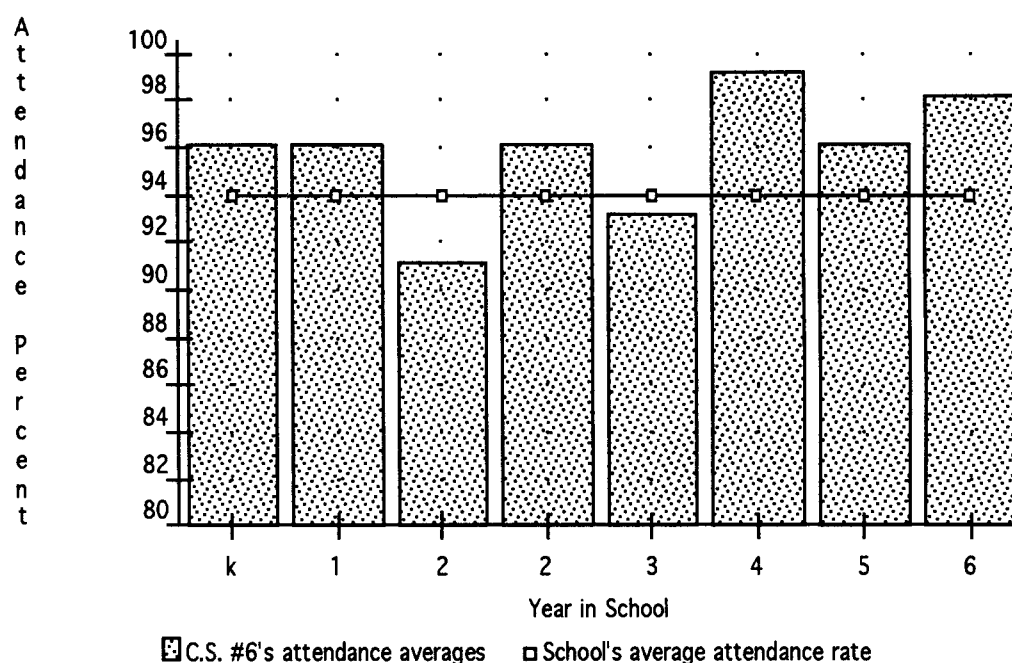
### *Attendance*

Under which instructional intervention did Huck Finn exhibit the highest rate of attendance?

Table 54 represents Huck Finn's attendance

percentages. His attendance was highest during third grade (99%) under DI and sixth grade (98%) under AL. His lowest attendance percentages were during his first time in second grade and third grade, 91% and 93% respectively.

Table 54. C.S. #6: Yearly Attendance Averages



Attendance percentage was investigated as a possible factor either affecting Huck's reading gains or benefitting from specific interventions. For example, if his gains were lowest during times of decreased attendance, then attendance could be construed as negatively impacting reading gains. Or, if attendance was particularly low during

any specific instructional intervention, it could possibly be construed that the type of instruction was a factor in encouraging Finn's absences.

Table 55 indicates attendance percentage in columns and reading gains on the line graph. Grade level and attendance percentage are given at the bottom horizontally.

Table 55. C.S. #6: Attendance & Reading Gains

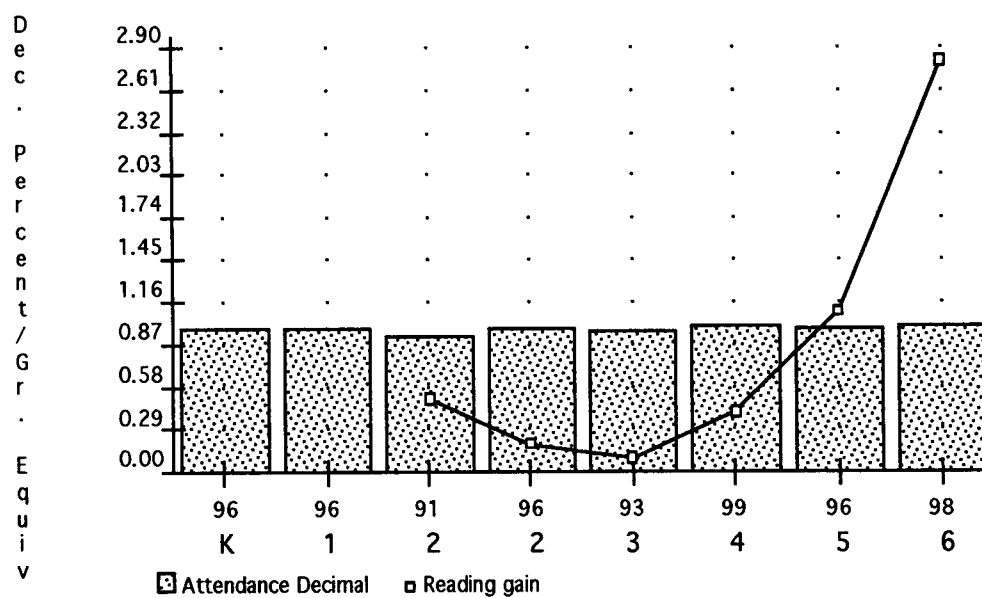


Table 55 shows that when Huck's reading gains were the highest, in sixth grade, his attendance was second highest. When attendance was lowest, in second and third grade, his gains were relatively moderate. Thus, no consistent pattern on the graph emerges to substantiate a

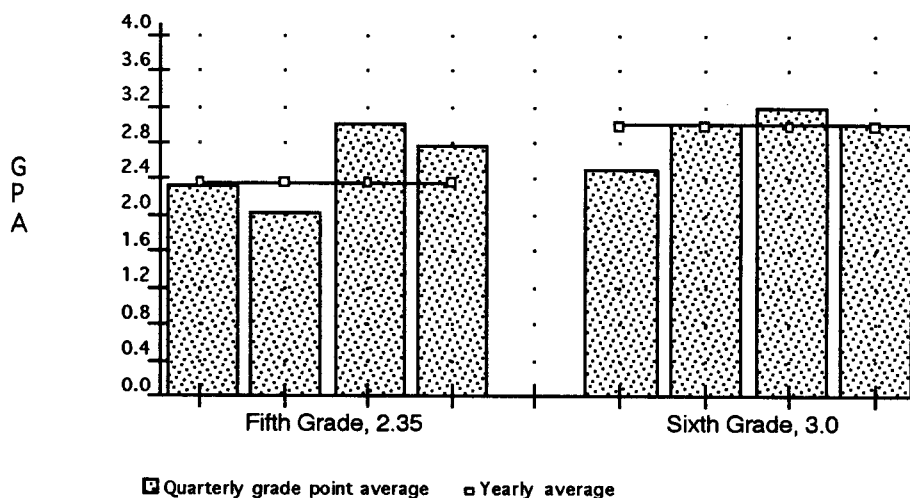
relational impact between attendance, reading instruction and/or reading gains.

### *Academic*

**Under which instructional intervention did Huck Finn have the highest g.p.a.?**

Huck began receiving letter grades in the fifth grade. Because of extensive special education placement, most of Huck's grades are from special education classwork. Table 56 illustrates his quarterly records.

Table 56. C.S. #6: GPA and Instructional Method



The table shows that Huck received his highest g.p.a. while in sixth grade. At this time he was receiving reading instruction under the AL method.

### *Student Attitude*

**What were the most common major factors Huck Finn gave for his achievements in reading?**

In an interview with Huck Finn on January 20, 1992, the tables depicting his reading gains were shown and explained to him. When asked why he thought he achieved the most under the Accelerated Learning method, he said, "It was easier." When asked why it was easier he did not know.

When given a list of possible reasons why AL might have been easier and why he might have learned more under this method, Huck agreed with six of the 24 possibilities. He said games, contests, reading out loud, doing plays, reading interesting materials and having a sort of funny teacher were things that helped him get his highest reading gain.

When asked under what circumstances he might succeed in the regular reading classroom he answered, "I don't know." When pressed he said the teacher would have to do "what you do." (meaning AL). He added, "I like it in here. I know people. I don't want to go."

### Conclusion

The years Huck received the fewest negative comments on his report card in areas of study habits and personal growth were during kindergarten, his second time in second grade and the last half of sixth grade. During kindergarten he was involved in a special education home intervention program. In second grade he was receiving reading instruction through the Stevenson Language Skills Program. During sixth grade he was receiving AL for reading. Therefore, there appears to be no one clear methodology under which Huck achieved his most positive comments in study habits and personal growth.

However, it is evident that Huck experienced his highest gain in reading under Accelerated Learning instructional methodologies. His gains under AL were almost six times higher than the ESD average and almost nine times the gain experienced under Direct Instruction.

While Huck was in AL reading, he not only experienced his greatest gains in reading, but also in math and written language skills. Furthermore, Huck's records show that

throughout his schooling as he improved in reading he also improved in math.

Huck's highest attendance percentages show no pattern which substantiate any relational impact between attendance, reading instruction and/or reading gains.

Huck experienced his highest g.p.a. while receiving Accelerated Learning for reading instruction.

In an interview Huck stated that he thought the reason he made his highest reading gains under AL was because learning with it was easier. In his answers to questions as to why it was easier and a more successful method for him he cited AL strategies and techniques that were active and involving, like games, contests and doing plays.



## Case Study #7: Bashful

### Description

Subject #7 is small sixth grade boy who, though an introvert, commands the care and respect of his peers. He may cry when a student speaks harshly to him or a teacher calls on him when he does not know the answer. He embarrasses easily with a deep red face. However, he is quick to join in games and activities, is responsible and well-liked. For purposes of character identification, Case Study #7 will be referred to as Bashful.

Bashful is the seventh of nine brothers and sisters and comes from an Apostolic Lutheran family, raised without exposure to TV, radio or written media at home. While he had a normal I.Q., as measured by the Wechsler Intelligence Scale for Children-Revised in 1988, Bashful's most recent test results in the spring of 1990 were inconclusive as the psychologist found it difficult to get him to respond. Bashful has a history of "freezing", unable to even give his name if he feels threatened or insecure. If a response is pressed when he is in this state, he will cry.

Regular Curriculum:  
Kindergarten through First Grade

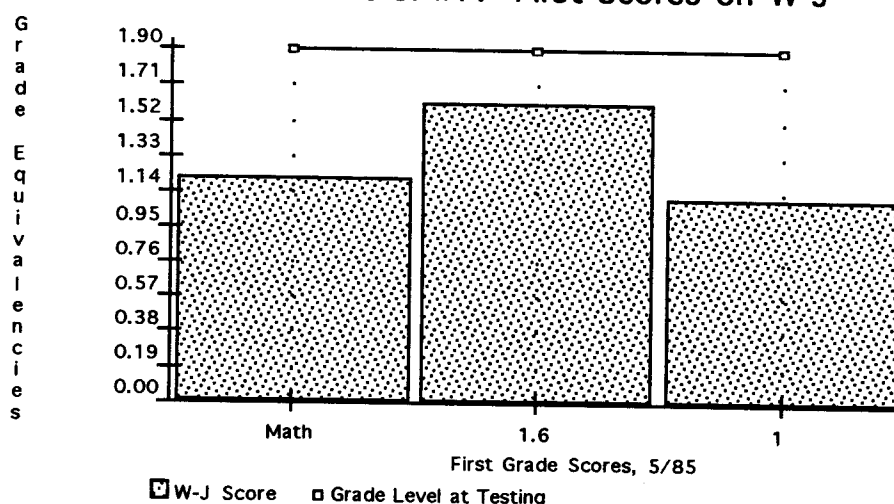
Throughout comments on Bashful's report cards the development of self-confidence has been an issue. Teachers generally remark that at the beginning of the year he is very insecure but by the end of the year he has gained in self-confidence. However, each fall he has a new teacher and classmates and shyness is again an inhibiting factor limiting his classroom participation.

In kindergarten Bashful's report card noted that his work habits were satisfactory but that he needed to improve his willingness to try something new and he needed to develop greater self-confidence. Report card comments also noted early on that he needed improvement on printing numbers, knowing his address, knowing the months of the year and knowing left from right.

While Bashful received Chapter One services for reading in first grade, he still experienced significant difficulty in reading, math and spelling. His oral expression was unsatisfactory and his written expression was not

graded. His teacher referred him for special education assessment in April. The psychologist qualified him due to "delays in academic functioning in reading, math, written language, and speech, teacher request, and debilitating classroom behaviors such as withdrawal and lack of oral and motivational responsiveness in academic areas, playing instead of working...Unsuccessful strategies tried include individual help and tutoring by teacher, help at home by mother and older sibling beginning in January, ability grouping, and supplemental curriculum." (Psych. report, 1985). His first grade May W-J scores, as shown in Table 57, were 1.2 in reading, 1.6 in math and 1.1 in written

Table 57. C.S. #7: First Scores on W-J



language. As he has a late birthday (9-77), Bashful qualified in both reading and written language areas as learning disabled on the basis of his age which was 7.6.

Direct Instruction in Special Education:  
Second through Fourth Grades

Bashful's entire special education academic experience in elementary school consisted of direct instruction through Corrective Reading and Reading Mastery programs (Englemann and Hanner, 1983). He ended his fourth grade year with W-J scores of 2.6 in reading, 3.8 in math and 2.6 in written language.

While receiving direct instruction for reading in his elementary years, Bashful made an average reading gain of approximately four months a year. In math he made an approximate average gain of nine months a year and in written language five months a year.

Report card comments in second grade show "Exceeds expectation" notations for showing consideration for others and being respectful towards authority. However, other

comments included "Improvement is needed" in working independently and putting forth effort in work. All other personal growth notations were satisfactory.

Due to low academic skills, retention was discussed but not accepted as an alternative placement for third grade. Bashful was present in school 89% of the school days.

By the end of third grade Bashful had an "Outstanding" notation for social studies, and a "Needs to Improve" notation for science. All his other classes were in the special education resource room. His work habits and personal growth were satisfactory or above. However, due to his continued difficulties with the basic skills, he was retained in the third grade. His attendance average for third grade was 94%.

His second third grade report card showed that Bashful still needed to improve in reading, language arts and spelling. However, the rest of his card, including math, was positive and he was promoted to fourth grade. His attendance average dropped to 85% for his year of retention.

Bashful's fourth grade report card notations were

similar to those he received during the second time in third grade except that participating in group activities was noted as needing to improve. His attendance average for fourth grade was 88%.

Eclectic Instruction in Special Education:  
Grade 5

In fifth grade Bashful was promoted to the middle school with his peers. On the first day of school, when asked what his name was in his special education class, he "froze" and began to cry. He did not speak for several days.

His basic skills were not high enough to accommodate any work in the regular curriculum. A special education aide assisted him in the regular classroom with science and social studies requirements. His sixth grade teacher also worked to adapt his assignments and tests. However, because the content area lectures, reading and assignments were conceptually not understandable to Bashful, a multi-disciplinary team, including his special education aide and teacher, his regular teacher and the school psychologist, met

and gained permission from his parents for participation in a special education science and social studies concepts class.

Bashful's report card comments through fifth grade indicated that Bashful exhibited good citizenship. In his special education classes he participated in all classroom activities.

Bashful's first quarter and first semester grade point equivalents with adapted and special education aide assisted social studies and science were 3.28 and 3.0 respectively. Third quarter and second semester, without a science grade, Bashful earned a 3.4 and 3.0 respectively. His yearly average, based on semester reports, was 3.0.

His attendance average was 97% for the year.

Bashful made a one year gain in reading during his fifth grade year from a 2.4 to a 3.4 grade equivalency. In math he gained four months, from a 3.2 to a 3.6 and in written language he gained six months, from a 2.5 to a 3.1 grade equivalency.

Accelerated Learning Instruction:  
Grade 6

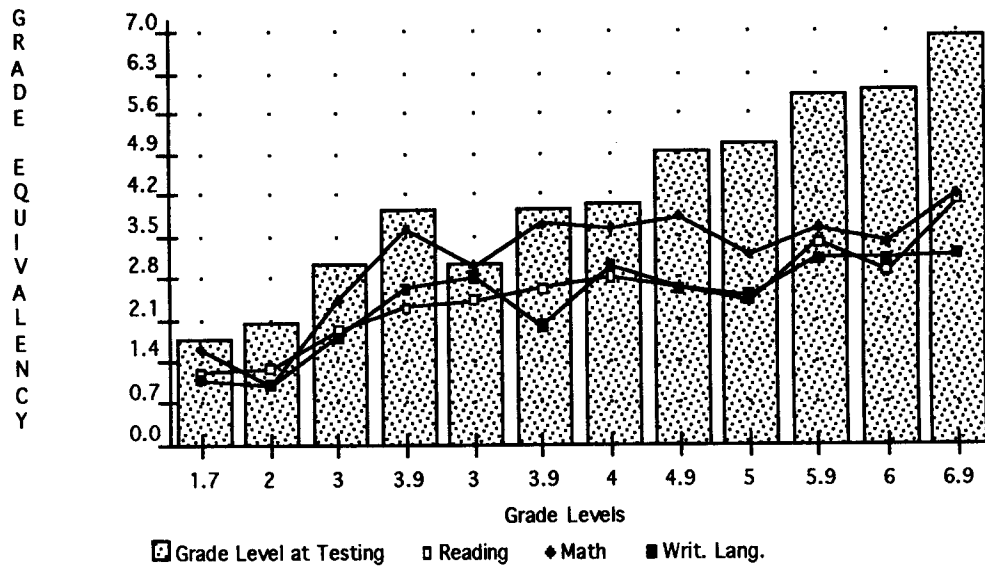
In the fall of sixth grade, Bashful's scores showed that over the summer he had lost five months in reading and was beginning the year at the 2.9 level. He had lost two months in math and none in written language with respective fall scores of 3.4 and 3.1.

Bashful expressed no reaction to AL techniques the first semester. Later on in the year, when the class was asked to vote on whether they wanted to have the mood music on during a test, they all enthusiastically raised their hands except Bashful. It was then that he said he hated the music and that it bothered him. He asked why the class had to ever listen to it in the first place. He said, "I'm relaxed already!" However, he appeared very enthusiastic about the games and activities. He came in early to begin them and resented the visualizations and music that he had to participate in before they start.

Bashful's W-J scores from first to sixth grade are plotted on Table 58.



Table 58. C.S. #7: 1st-6th Grade Scores on W-J



During AL Bashful made a one year and two month growth in reading, an eight month growth in math and a one month growth in written language.

Bashful remained with his homeroom class for adapted science, social studies and physical education throughout sixth grade. His first quarter and first semester grade point equivalencies were both a 3.0. His third quarter and second semester grade points were 2.857 and 2.429. His yearly average, based on semester reports, was 2.7145. Notations on his report cards indicating problems included "assignments or projects not handed in", "effort inconsistent", "wastes time in class", "lacks motivation" and

"has difficulty expressing ideas in writing". Positive comments included "participates in discussions and activities", "exhibits good citizenship", and "is responsible".

Bashful was present 99% of the school year.

### Summary

#### *Behavior*

Under which kind of instructional program was Bashful reported with the highest degree of positive study habits and personal growth?

Bashful's report card notations indicate that his best year was his second year in third grade. This was the only time cards he received all satisfactories or better in work habits and personal growth on his report card. He was receiving Direct Instruction in reading at that time. His second best year was during his fifth grade, his first year at the middle school when he received reading instruction using an Eclectic method.

#### *Achievement*

Under which kind of instructional program,

regular or special education (specifically Direct Instruction, Eclectic or Accelerated Learning) did Bashful experience his highest gains in reading?

Bashful's greatest reading gains were realized in sixth grade under AL instruction. His specific W-J fall and spring reading tests scores, recorded since his referral to special education in first grade, are graphed on Table 59. Specific instructional interventions are noted under grade levels.

Table 59. C.S. #7: W-J Reading Scores

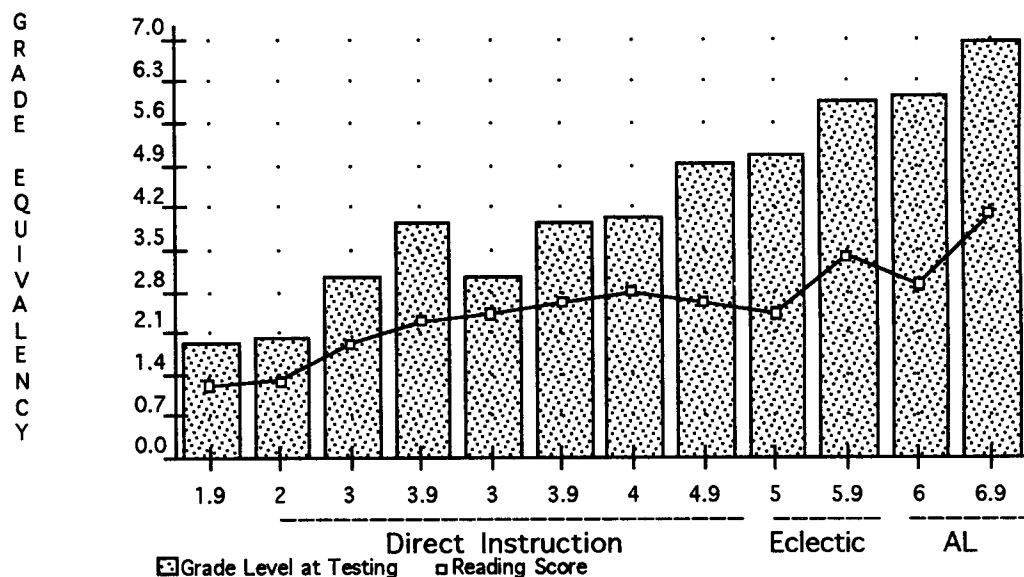


Table 60 depicts Bashful's reading gains in relation to the kind of instruction in reading he received. The average gain is 1.0 in any academic year. The average gain of

approximately four months (.43) a year for his first four years of special education under Direct Instruction was determined by subtracting his second grade fall W-J score from his spring W-J score and dividing the difference by four, the number of years of schooling he had completed. Under Eclectic Bashful gained one year and under AL he gained one year and two months.

Table 60. C.S. #7: Average Gains in Reading

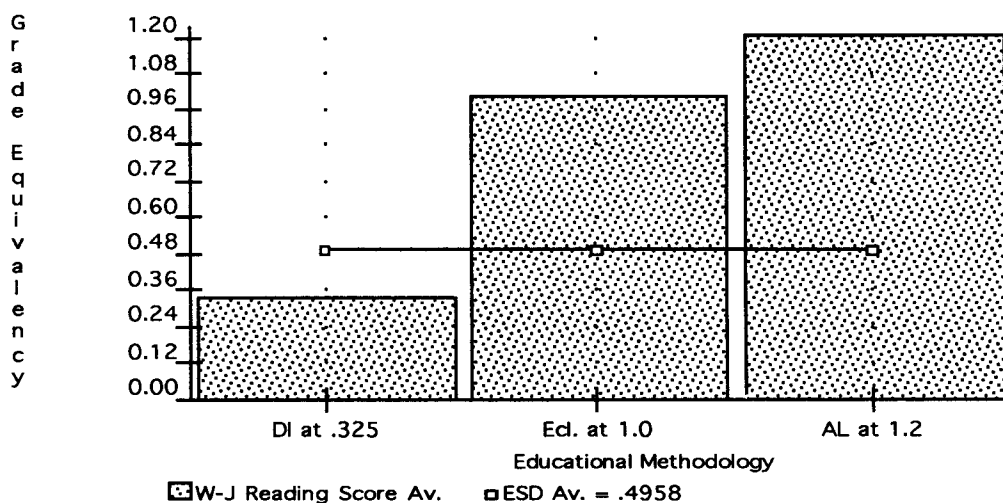
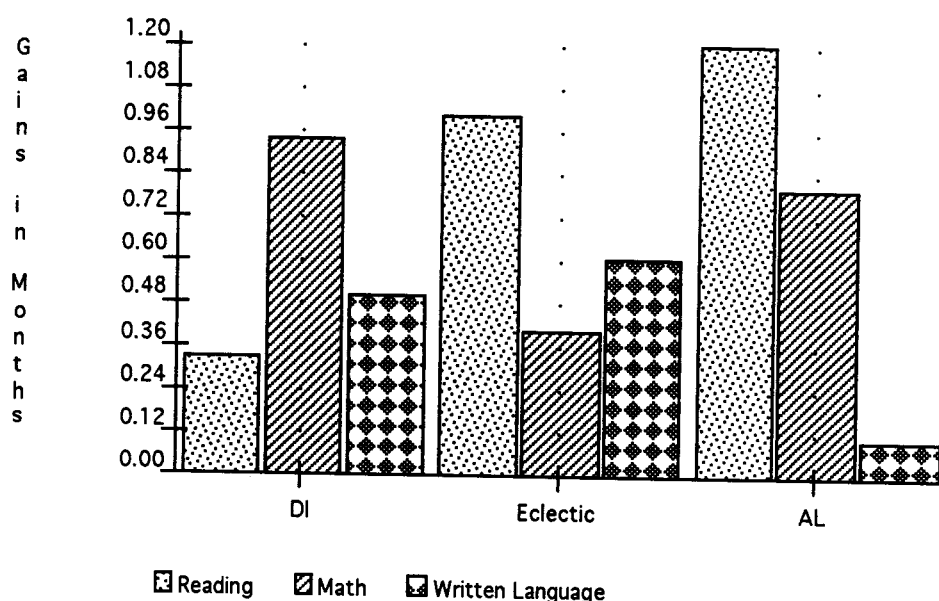


Table 60 also compares Bashful's reading gains to the average yearly gain documented by ESD #112's population of SLD students. Bashful's gains while receiving reading instruction under AL are more than twice as great as those reported for the ESD's learning disabled student population.

Table 61 compares Bashful's reading gains with gains in

other basic skills, which were addressed within his special education curriculum. His reading gains, while increasing with each kind of intervention, do not show a corresponding pattern of growth when compared to either Bashful's math or written language scores. During DI for reading the high gain was in math. During Eclectic and AL interventions the highest gains were in reading. During Eclectic instruction math gains were at their lowest but during AL written language gains were at their lowest.

Table 61. C.S. #7: Comparison of W-J Gains



*Attendance*

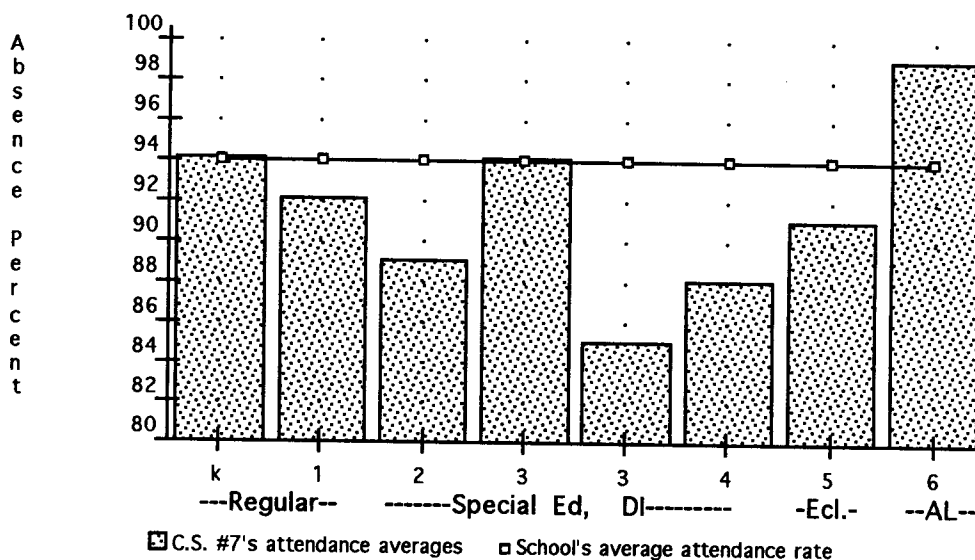
Under which instructional intervention did

### Bashful exhibit the highest rate of attendance?

Table 62 graphs Bashful's attendance percentages. His attendance was highest, at 99%, during AL instructed reading. His lowest attendance was 85% while receiving Direct Instruction for reading during his second time in third grade.

Bashful's total average attendance in school was 93%. It was 93% from kindergarten through first grade during his regular school instruction. During special education under Direct Instruction his attendance average was 89%. During Eclectic it was 91% and during AL it was 99%.

Table 62. C.S. #7: Yearly Attendance Averages



Grade in School and Instructional Methodology

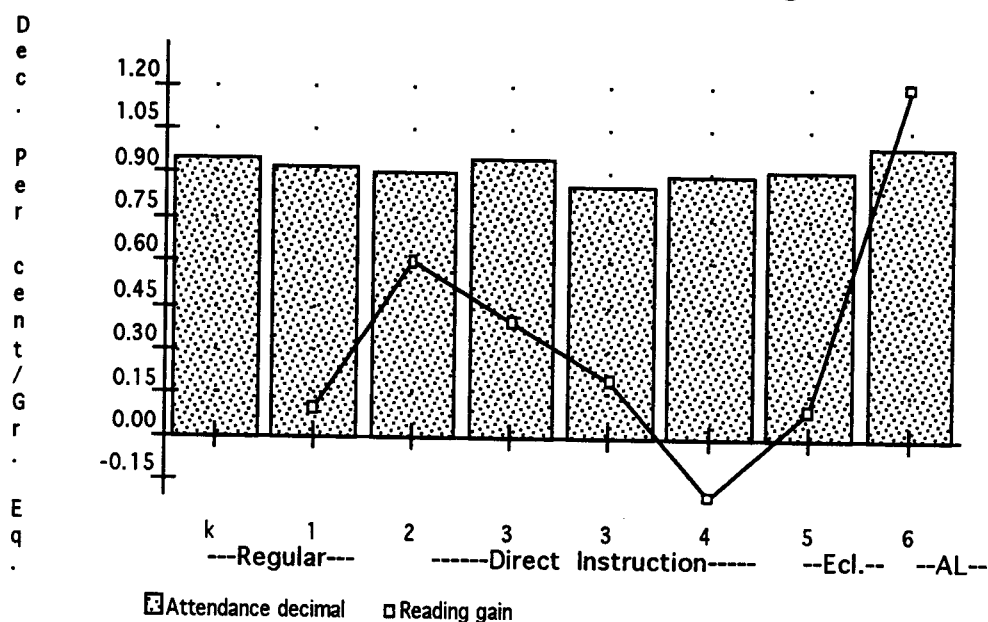
Attendance percentage was investigated as a possible

factor either affecting Bashful's reading gains or benefitting from specific interventions. For example, if his gains were lowest during times of decreased attendance, then attendance could be construed as negatively impacting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could possibly be construed that the type of instruction was a factor in encouraging Bashful's absences.

Table 63 indicates absence percentage in columns and reading gains on the line graph. Grade level and reading methodology are given horizontally at the bottom of the graph.

Table 63 shows that when Bashful's average reading gain was at its lowest, during fourth grade, his absences were second highest. When his reading gain was the highest his absences were the lowest. However, his other scores do not always follow this pattern. Therefore, no consistent pattern on the graph emerges to substantiate a relational impact between attendance, reading instruction and/or reading gains.

Table 63. C.S. #7: Attendance &amp; Reading Gains



### Academic

Under which instructional intervention did Bashful have the highest g.p.a.?

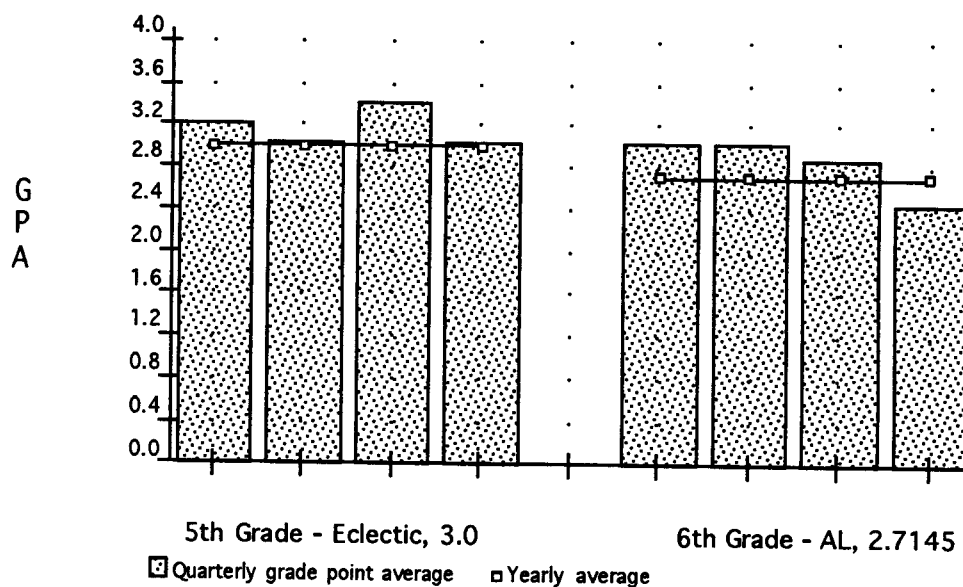
Throughout his school career most of Bashful's school program has been adapted to his ability level. His report cards in kindergarten through fourth grade show an interest and sometimes mastery in science but always trouble with the basic skills and social studies.

Bashful received his first grade point average (g.p.a.) fifth grade. His lowest g.p.a., 2.4, occurred during his last



semester of his sixth grade under AL reading instruction. His highest, 3.4, occurred during fifth grade during Eclectic instruction. Overall, he received his highest grade points in fifth grade while receiving Eclectic reading instruction.

Table 64. C.S. #7: GPA and Instructional Method



Bashful's g.p.a. under Eclectic was 3.0 and under AL it was 2.7145. A possible reason for the difference lies in the fact that Bashful had adapted science and social studies grades all year long in sixth grade and in fifth grade only during the first semester.

### *Student Attitude*

**What were the most common major factors Bashful gave for his achievements in reading?**

Bashful was shown the graphs on reading progress. He could not recall his earlier reading instruction. When asked why he thought he achieved most during the last two years of instruction he said he didn't know. When asked why he thought he achieved the most under AL, he did not know. I reviewed with him what his earlier experiences in reading were. I read him a list of possible reasons for his success. He agreed that reading aloud, games and contests may have been factors in his success.

When asked under what circumstances he thought he could succeed in the regular reading classroom he "froze" and could communicate no longer.

### Conclusion

Bashful's report card notations on personal growth and study habits were the most positive during his second time in second grade while he was receiving reading under Direct Instruction.

It is evident that Bashful experienced his highest gain in reading under AL instruction. While his average gains were just two months higher than those he experienced under Eclectic methodology, they were close to four times higher than his DI gains and more than twice the ESD average gains.

Bashful's highest attendance average, 99%, occurred during the year he had AL. However, no consistent pattern emerged to substantiate a relational impact between attendance, reading instruction and /or reading gains.

Bashful experienced his highest g.p.a. while receiving Eclectic reading instruction.

Bashful responded that he did not know why he had made his highest gains in reading during AL. When encouraged to respond he named interactional activities as those he liked.

## Case Study #8: Felix Ungar

### Description

Subject #8 is a ruddy-faced, red-haired, overweight boy. He has trouble successfully relating to others. He has cried about his lack of friends and doesn't seem to know how to develop rapport with his peers. A perfectionist, he has difficulty accepting anyone's shortcomings, including his own. After hurting another student he will cry and swear he didn't do it. He is also adamant that he does not need any special help in reading.

His mother reports that his father has a short temper and has given little support for family counselling. She feels her son's self esteem has been negatively affected by the father's behavior. She has wondered if Felix's self-esteem is the root of his learning disability.

Felix's mother also reports that her son has had a history of ear infections that leave him with temporarily impaired hearing during infection. She thinks this may be a factor in his difficulty with verbal performance.

Felix has a normal I.Q., as measured by the Wechsler

Intelligence Scale for Children-Revised. He has been enrolled in two different school districts.

For the purpose of this report, Case Study #8 is identified as Felix Ungar, a perfectionist who is easily exasperated at the faults of others but has difficulty admitting any of his own.

### Regular Curriculum

Felix began his schooling in a neighboring school district. His kindergarten report recommended retention and stated that "He is very immature and is very delayed in his language skills...Another year in kindergarten will help both Felix's language skills and maturity." In his second year of kindergarten, his teacher reported that she was "pleased with how neatly and carefully he does his work."

In first grade the teacher found him "neat in all his daily work", strong in math but in need of "reminding to be a good neighbor." In second grade listening and following directions, as well as inconsistent good neighbor behavior, were problems.

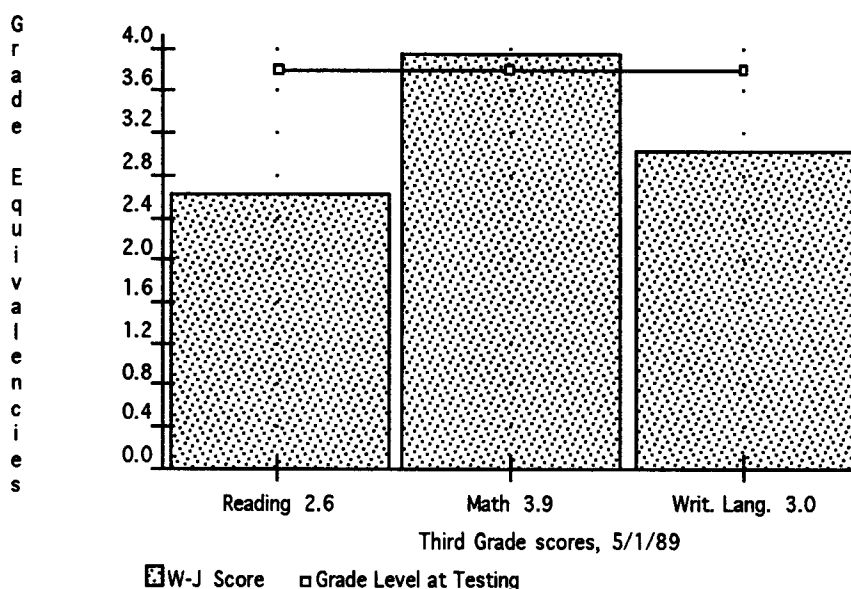
Felix's first report in third grade stated that he "has a hard time staying on task. He sits quietly for up to 45 minutes doing nothing. He often has to spend recess in to finish work. He is doing well in math, but could do better with a little effort."

Felix entered the school district involved in this study during the second half of his third grade year. Though no special education or speech records are in his present files, there is notation that he had been receiving Chapter I and speech instruction at his previous school, so these services were continued.

His new third grade teacher referred him for special education academic assessment with the written comments: "slow to respond to verbal directions, easily distracted, frequently off task, lacks concentration, reading ability below grade level in reading." A full assessment was completed on him in May of third grade. He qualified for further services as Specific Learning Disabled. His initial W-J grade equivalency scores, as shown on Table 65, were 2.6 for reading, 3.9 for math and 3.0 for written language skills.

He began his academic special education placement in the fall of his fourth grade year.

Table 65. C.S. #8: First Scores on W-J



Special Education:  
Grade 4

While Felix received special education spelling and language arts as well as speech and Chapter One reading, his fourth grade report card indicated math as a strong area. Comments on his report card indicated that study skills and social development needed improvement in the areas of listening and following directions, making good use of his time, working well independently, being courteous and kind to

all and participating in group activities. Comments on his report card: "...does not do anything unless you push him again and again...He is very uncooperative and disruptive during reading group. He puts out very little effort on projects."

At the end of fourth grade his W-J grade equivalencies were 3.0 for reading, 5.9 for math and 4.4 for written language. Felix advanced above grade level in math while in the regular curriculum, gained one year and five months in written language skills with special education help and gained five months while in the eclectic oriented Chapter One class for reading.

Accelerated Learning Instruction in Special Education:  
Grade 5

Because of his continued low gains in Chapter One reading, Felix's special education services were expanded to include reading in fifth grade. He expressed resentment and frustration regarding this placement decision. He expressed repeatedly that he did not think he needed any special help in reading because he thought he read very well. In fact, his



oral reading was close to grade level. Therefore, during oral reading it was evident that his reading was more fluent than the others in his group. However, his problem was comprehension. Through discussions and results from questions over material read aloud by the class, Felix consistently had difficulty recalling what he had read.

Felix was an erratic participant, exhibiting many difficulties getting along with the other three people in the class. Also, in February he got a cold and ear infection. For two or three months he could not hear, but he wouldn't admit that he couldn't hear until audiology testing verified it. Special strategies were employed to get him to focus on all directions and information written on the board and spoken by mouth (his ability to "hear" was almost perfect with lip reading).

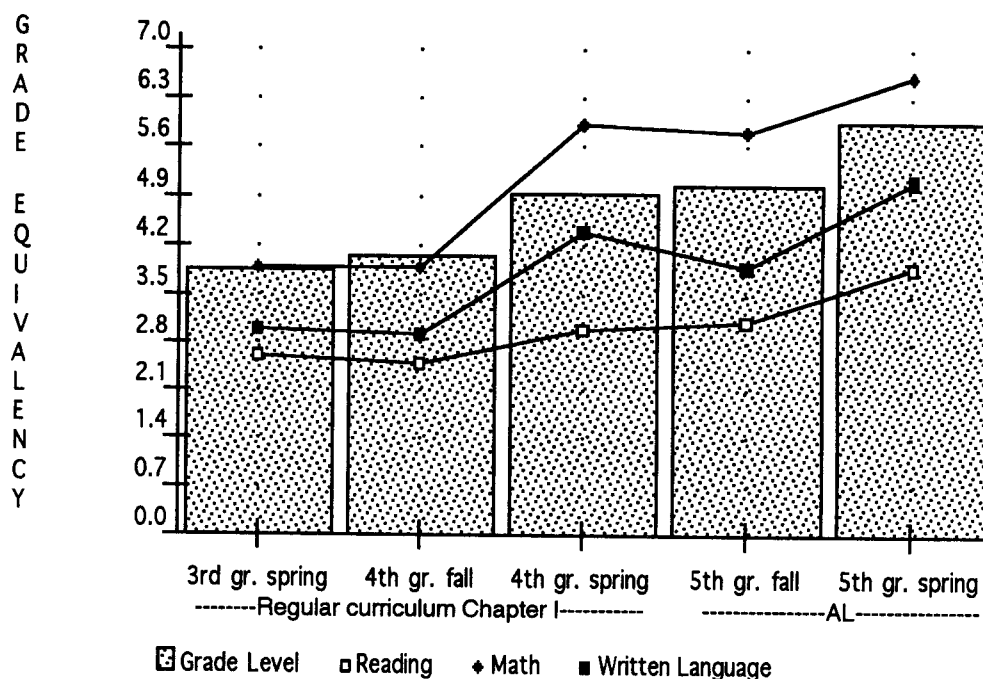
Felix expressed impatience with the music and visualization components of AL. He was motivated when the group began reading his grade level text winter quarter. His regular classroom teacher admitted him into her reading group at this time. The AL lessons strictly followed his

classroom's reading sequence. His oral reading was satisfactory. His comprehension work, when prepared and reviewed in the AL class was also satisfactory. However, when the regular teacher gave quizzes and worksheets on extra little stories or passages not reviewed in the special education classroom, he usually failed.

Felix did not see a connection between AL preparation with the regular text and success in his regular class. He wanted OUT OF SPECIAL EDUCATION READING. He repeated throughout the year that he did not need help in reading but that he did know he needed help in language arts. His attitude had a negative effect upon the attitude of his reading group's morale. Students would tell him that it didn't make them feel very good when he said that he was too smart to be in this class -as if they were a bunch of dummies or something.

At the end of the year Felix's W-J scores in reading math and written language were 3.9, 6.6 and 5.1 respectively. He had made an eight month gain in both reading and math and a one year, two month gain in language arts. His scores are plotted on Table 66.

Table 66. C.S. #8: 3rd-5th Scores on W-J



Felix's grade point averages for the first quarter and first semester of fifth grade were 3.5 and 3.167, with social studies and science curricula modified to meet his ability level. For third quarter (science modified only) and second semester (neither science or social studies modified), Felix earned 3.3 and 2.8 respective g.p.a.'s. His yearly average, based on semester reports, was 2.9835.

Comments on his report cards show continued distractibility throughout the year. At the beginning of the school year comments indicated he was trying very hard.

During the second half of the year his effort decreased, with comments like "Required book reports not in," "major project or assignment missing or incomplete," and "Effort inconsistent".

### Summary

#### *Behavior*

Under which kind of instructional program was Felix Ungar reported with the highest degree of positive study habits and personal growth?

Felix's second year kindergarten report card had "Excellent strength" noted for all areas of study habits and all "Satisfactory" marks in social and emotional development except an "Excellent strength" notation in group participation. In his other report cards there were notations of problems in following directions, work completion and getting along with others.

#### *Achievement*

Under which kind of instructional program, regular or special education (specifically Direct

Instruction, Eclectic or Accelerated Learning) did Felix Ungar experience his highest gains in reading?

Felix's greatest reading gains were realized in fifth grade under AL reading instruction when he made an eight month gain.

Felix's specific W-J fall and spring reading test scores, recorded since his entrance into special education in fall of fourth grade, are graphed on Table 67. The type of reading instruction he was given is noted under his grade level.

Table 67. C.S. #8: W-J Reading Scores

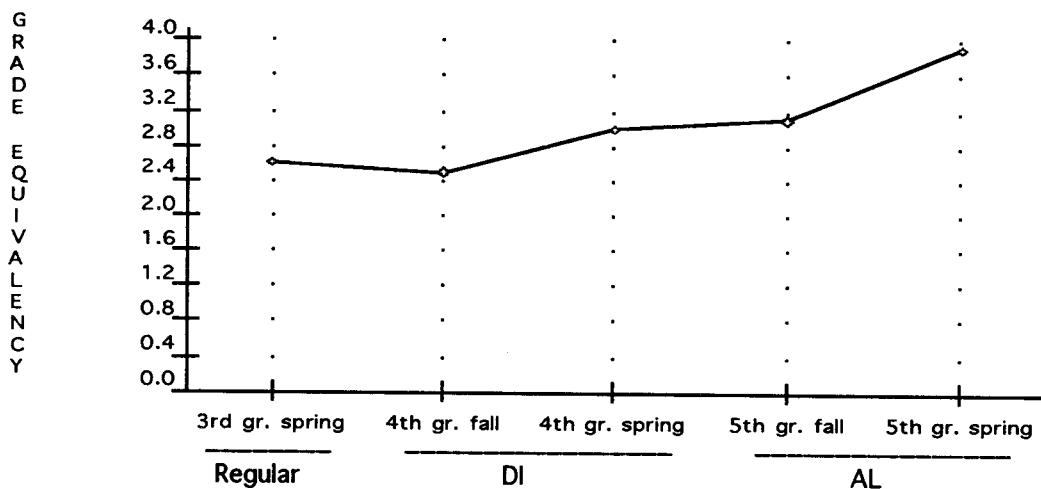
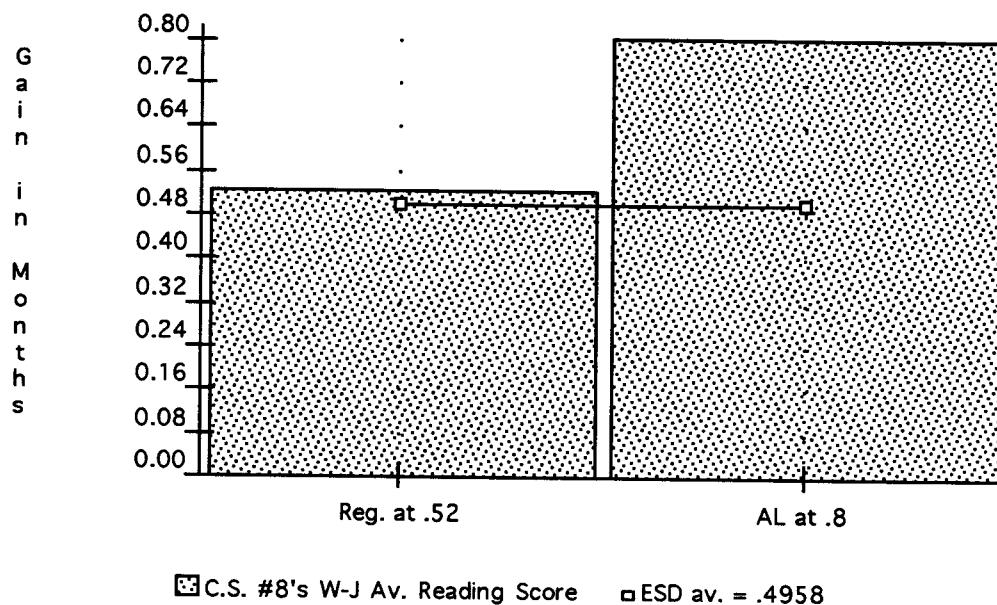


Table 68 depicts Felix's averaged reading gains in relation to the kind of instruction in reading he received. The average expected gain is 1.0 in any academic year. The average gain of approximately five (.52) months a year for his

first six years of school was determined by dividing his fall third grade W-J reading score, 3.1, by six, the number of academic years completed.

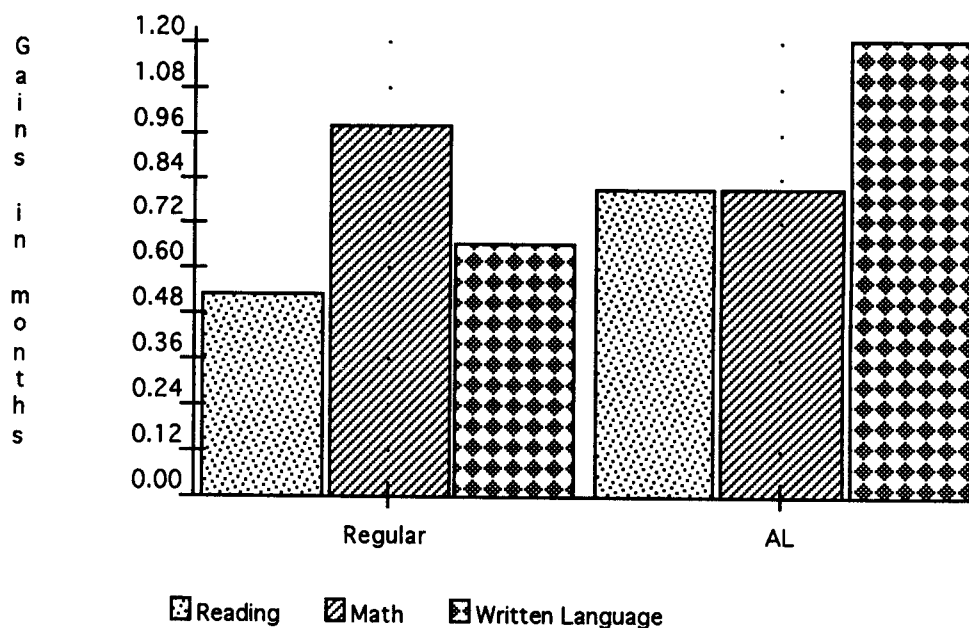
Table 68. C.S. #8: Average Gains in Reading



It is evident from Table 68 that during AL he not only made his greatest gains, but also achieved a growth in reading ability about three months more than the ESD learning disabled student population.

Table 69 compares Felix's average reading gains in each instructional methodology to gains achieved in his other basic skills.

Table 69. C.S. #8: Comparison of W-J Gains



When Felix made the least progress in reading he made the most progress in math. As his reading improved, under AL, so did his written language skills. While he remained in the regular math curriculum throughout his schooling, special education intervention in reading and written language did not enhance his rate of gain in math.

### *Attendance*

Under which instructional intervention did Felix Ungar exhibit the highest rate of attendance?

Attendance percentage was investigated as a possible

factor either affecting Felix's reading gains or benefitting from specific interventions. For example, if his gains were lowest during times of decreased attendance, then attendance could be construed as negatively impacting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could possibly be construed that the type of instruction was a factor in encouraging Felix's absences. Table 70 graphs Felix's absences. His attendance records for third grade are missing.

Table 70. C.S. #8: Yearly Attendance Averages

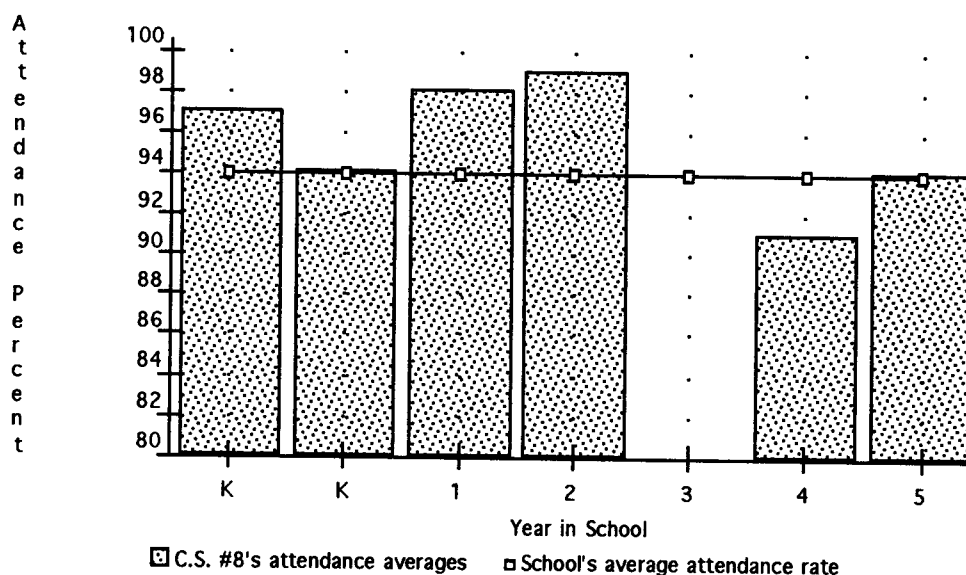


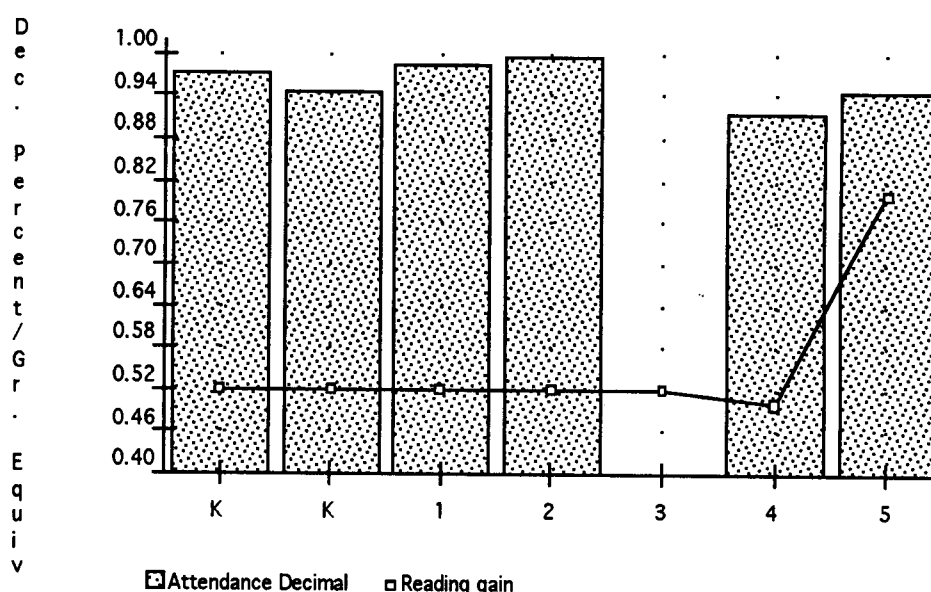
Table 71 graphs Felix's attendance percentages corresponding to the type of reading instruction he had. His



attendance was highest, at 99%, during second grade regular instruction and lowest, 91%, during fourth grade, the year he changed schools and began special education for language arts.

Table 71 indicates absence percentages in columns and reading gains on the line graph. Grade level and methodology are given horizontally at the bottom of the graph.

Table 71. C.S. #8: Attendance & Reading Gains



When Felix's average reading gain was at his lowest his absences were at their highest. However, when his absences were at their second highest, his reading gain was at his highest. From the data depicted on Table 71, no consistent

pattern emerges to substantiate a relational impact between attendance, reading, instruction and/or reading gains.

### *Academic*

**Under which instructional intervention did Felix Ungar have the highest g.p.a.?**

As Felix entered the AL program as a fifth grader, the year he began receiving letter grades and grade point averages, it is not possible to compare grade points. Furthermore, as there is little information on earlier report cards detailing the amount of work adaptation, if any, for Felix, no comparison is possible.

### *Student Attitude*

**What were the most common major factors Felix Ungar gave for his achievements in reading?**

Felix was shown his reading progress graphs on January 20, 1992. When asked why he thought he achieved the most under the AL method he responded, "I really don't know. Maybe because I was in a higher grade."

A list of possible reasons he might chose to explain his

reading gain was read to him. He thought instruction in comprehension, a funny teacher, interesting materials and a desire to be in a higher reading class were the most important factors encouraging his reading gain.

When asked under what circumstances he would feel successful in a regular reading classroom he said, "I really can't say. Read the book and take the test. Read out loud." When given a list of additional responses he responded positively to the use of AL, activities and reading aloud. He said what would really be the most helpful would be writing a word on the board and seeing who could say it first.

### Conclusion

Felix received his highest notations for study habits and personal growth during his second year in kindergarten. As there are no records from this year, it can be assumed he was in the regular curriculum.

It is evident that Felix experienced his highest gain in reading under Accelerated Learning instructional methodologies.

It is evident that Felix experienced his highest gain in reading under AL instruction.

Felix's highest attendance average, 99%, occurred during second grade before he was in special education. His lowest attendance percentage, 91%, occurred during fourth grade, also before he was in special education. Therefore, no consistent pattern emerged to substantiate a relational impact between attendance, reading instruction and/or reading gains.

Grade point comparison is not possible because Felix had just begun receiving letter grades on his report card the year he had AL.

Felix's comments about what he felt most contributed to his success in reading and would help him succeed in a regular class included games and passive instruction like instruction in comprehension, reading the book and taking the test.

## Case Study #9: Mr. Energy

### Description

Subject #9 is a skinny, wiry boy. Teachers have noted his spontaneity, inattention to tasks and active behavior in class since kindergarten. The comments on his kindergarten report cards can be applied to him as a fifth grader: "...tends to rush to finish...talks out...personal and social growth is a problem area."

His sixth grade teacher and school wrestling coach reports that Mr. Energy is the best athlete in the lower middle school, grades 5-6. Although he is small and skinny, he's fast and agile. For this report he will be called Mr. Energy.

Some days he appears depressed, not showing a smile, working but using illegible handwriting all over a page and refusing to communicate his problem. Other days he is cheerful, funny and full of motion and conversation, refusing to stay seated in his chair.

Mr. Energy is unable to relax. During visualization sessions, quiet reading time or calming time, Mr. Energy remains in movement. Even when he's in a depressed mood he

fidgets with what's at hand, eyes darting around the classroom seeking the attention of others.

### Regular Curriculum

Mr. Energy began kindergarten in a neighboring school district in a rural area. The first year he had an alternating full day schedule which means his class met 90 of the 180 school days. His attendance was good (98% present) but his academic readiness skills were weak. He had difficulty listening and responding appropriately as well as following directions and demonstrating self-control.

### Direct Instruction in Special Education: Kindergarten through Fourth Grade

Mr. Energy was referred for special education assessment during kindergarten due to low academics, health, auditory perception and hearing acuity concerns and poor speech articulation. Initially he qualified for special education services as Hard of Hearing because he had a history of fluctuating hearing loss which interrupted a normal acquisition of speech and language.

A multi-disciplinary team met and recommended that Mr.

Energy repeat kindergarten. He attended on a daily half day schedule. Every day he received one hour of special education assistance in reading readiness and language development. A communication disorder specialist (CDS) further helped him on expressive language development. By the end of the year he recognized all his numbers and letters though not all of his coins or letter sounds.

Mr. Energy transferred to a neighboring school district during the summer between his second kindergarten and first grade year. He continued to receive special education services, primarily in written language and spelling with communication development through CDS. In the first and fourth grade he received extra help in reading from Chapter One.

His Chapter One teacher charts average yearly gains by her students in excess of 2 years each year. She individualizes her instruction using Barnell-Loft Specific Skills Series to target reading skills like finding the main idea, locating answers, sequencing and word analysis. She also works with phonics, high interest reading activities and motivational

contests. Mr. Energy was more interested in finishing his work than learning it. He would typically mark in answers without reading the questions, flip through a library book and expect credit for a book report. He gained an average of one month a year in the Chapter One program.

In the second and third grades Mr. Energy was involved in a special education reading program. His reading class was instructed using direct instruction techniques, as directed in Reading Mastery (Englemann and Hanner, 1983), that encourage constant on-task behavior. Mr. Energy made an average of seven and a half months growth per year while involved in this program.

In fall of third grade, during his triennial special education re-assessment, Mr. Energy's handicapping condition was changed to specific learning disabled on the basis of his low academic achievement but average I.Q. as measured by the Wechsler Intelligence Scale -Revised.

By the end of fourth grade Energy had a 3.4 grade equivalency in reading, one year and five months behind the average expected reading ability of a student completing the



fourth grade.

He had a 5.4 in math and was able to remain in his regular classroom for this subject. His weakest score, 2.8, was in written language skills.

Overall, the patterns Mr. Energy exhibited in kindergarten became fixed throughout his elementary (K-4) schooling. He remained spontaneous, moody, anxious to finish fast, talkative, and active. Two different kindergarten teachers wrote that Mr. Energy needed to improve his social skills. One teacher wrote, he "has really developed problems in personal and social growth area -Playground behavior is problem -Tends to lead others astray." Another teacher writes, "Personal and social growth area has gone down due to ... leading people astray -(He has developed a "sneaky" streak) -When confronted he never owns up to his part." His fourth grade teacher wrote that he "can be a great student, when he chooses to be. He can sometimes have a very negative attitude. He rushes through his work...His temper needs to be controlled, it gets out of hand." His attendance remained excellent.

Accelerated Learning in Special Education:  
Grade 5

Upon entering middle school and the Accelerated Learning program, Mr. Energy expressed frustration with his special education reading assignments. He said he wanted to be in a reading group with the kids in his regular class. While his regular teacher taught reading, he was expected to work independently on an alternate task at his desk.

This student is very social and prefers to foster peer attention rather than listening to teacher instructions. He sometimes chooses to be disruptive with all his chattering, laughing and chasing around the room. Being excluded from his own classroom was difficult, and he expressed his frustration by pouting, insulting the other special education students, coming to class late or simply refusing to do the work. First quarter he earned a D in special education reading.

As Mr. Energy was given opportunities to "be the teacher" in the AL class, he became a proud and encouraging helper to the other students. On game days he refused to return to his regular class on time because he wanted to "play one more".

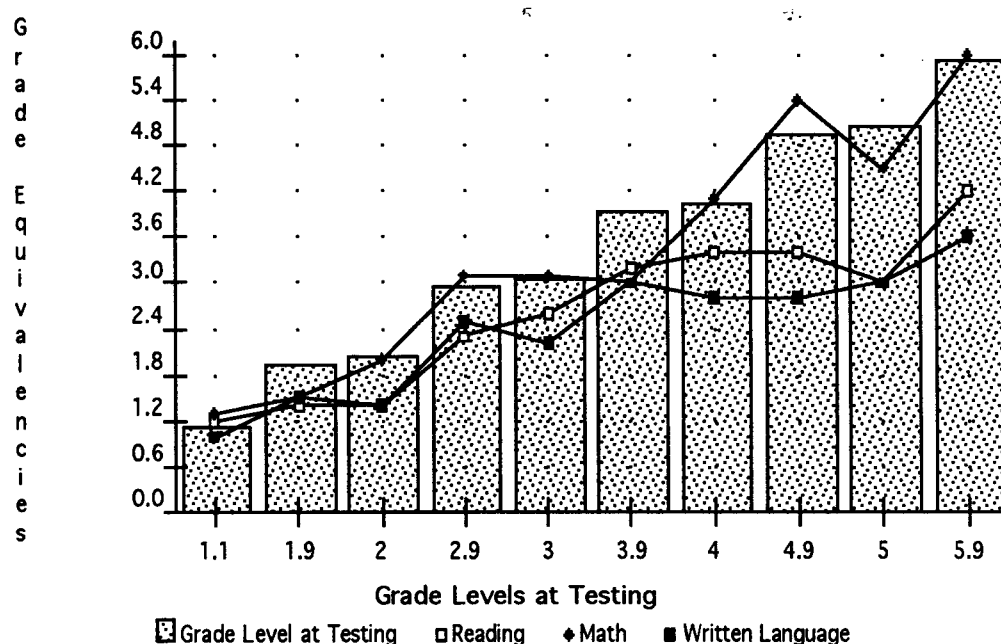
By November he and his classmates had completed AL taught phonics lessons and were ready for the regular reading textbook used by the regular fifth grade low reading group. Mr. Energy was enthused and confident. However, though his oral reading skills were adequate, Mr. Energy had difficulty understanding what he read aloud or what he heard read to him. Using AL strategies such as competitions, games, and dramatizations, he earned an A+ second quarter. By reading extra books and writing extra book reports, he ended up earning an A+ for first semester and a 3.25 semester g.p.a.

At this time Energy's regular teacher consented to allow him into her low reading group. He passed all the work for his regular class as long as it had been presented and thoroughly taught first in his AL class. If his teacher gave him anything he hadn't learned in the AL class, he failed. However, because he passed most of his regular classroom reading assignments, the ones he had actually been prepared for in AL, he thought he was reading to leave special education altogether. He grew frustrated when his wishes to leave special education reading weren't granted.

So, while Mr. Energy remained interested in the games and activities of AL, his motivation for reading subsided. He cheated on book reports twice and began finding work in the regular textbook not as easy as he had at first. The last two quarters he earned a C- and B- in special education reading averaging to a C+ semester grade. His second semester grade point dropped to a 2.33. His yearly average was 2.79.

Energy's W-J scores at the end of fifth grade indicate an eight month gain in reading, a one year and five month gain in math and a six month gain in written language. All of his W-J scores are plotted on Table 72.

Table 72. C.S. #9: 1st-5th Scores on W-J



## Summary

### *Behavior*

Under which kind of instructional program was Mr. Energy reported with the highest degree of positive study habits and personal growth?

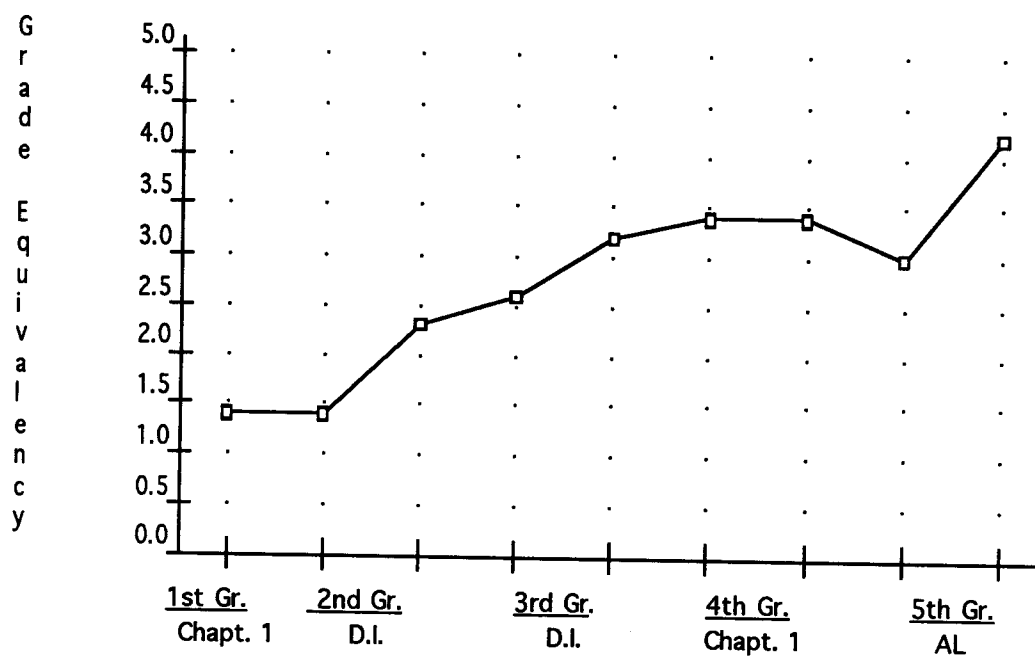
Mr. Energy's personal growth and study habits remained very similar to those reported in kindergarten throughout his school career. No teaching method seems to have affected a long term change in the volatility of his moods and impulsivity of his behavior.

### *Achievement*

Under which kind of instructional program, regular or special education (specifically Direct Instruction, Eclectic or Accelerated Learning) did Mr. Energy experience his highest gains in reading?

Mr. Energy made his greatest gains in reading under the AL method. Table 73 compares the different types of reading instruction and gains made on the Woodcock-Johnson. It is evident that Energy made the least amount of progress under Chapter One.

Table 73. C.S. #9: W-J Reading Scores



In fifth grade Energy moved to the middle school and the AL special education reading program. He achieved eight months gain for the academic year.

In spring of first grade, Mr. Energy had his initial Woodcock-Johnson testing. He began special education for written language skills and Chapter One for reading. During second and third grades he had special education reading with Direct Instruction. He resumed Chapter One reading in fourth grade but returned to special education reading in fifth grade, this time under AL instruction. His highest gains can be seen in Table 74 under AL.

Table 74. C.S. #9: Average Gains in Reading

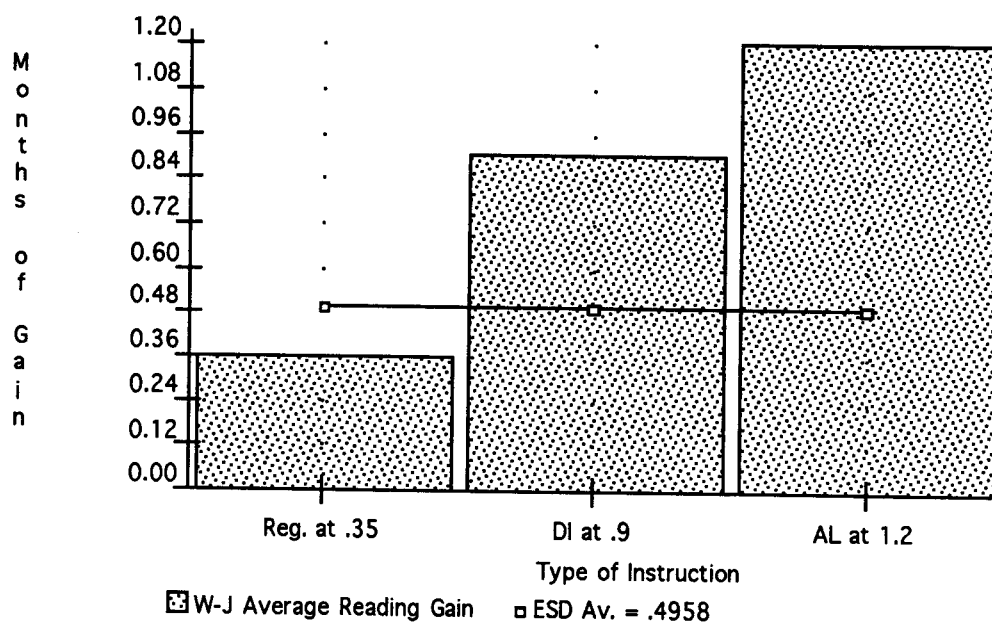


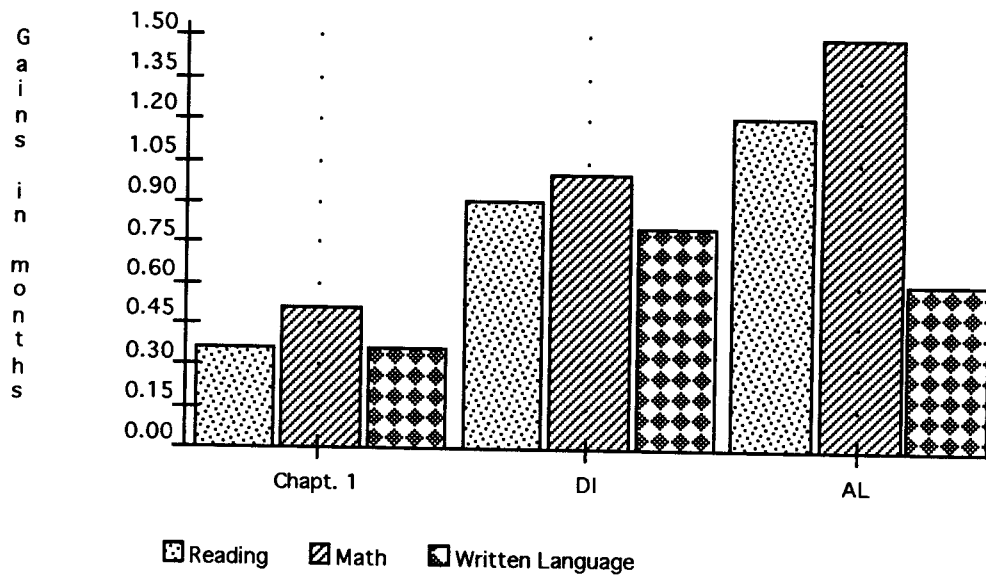
Table 74 averages Mr. Energy's reading gains and compares them to the average yearly gain documented by ESD #112's population of SLD students. The average expected gain is 1.0 in any academic year. Energy's gain in AL was a little over twice the ESD average. He made his lowest gain average while in a regular curriculum.

Table 75 compares Energy's average reading gains in each instructional methodology to gains achieved in his other basic skills. Throughout his schooling Energy received special education for written language. However, he received math through the regular curriculum and reading alternately

through Chapter One and special education services.

It is evident from Table 75 that the greatest cumulative gain was made during AL.

Table 75. C.S. #9: Comparison of W-J Gains



### *Attendance*

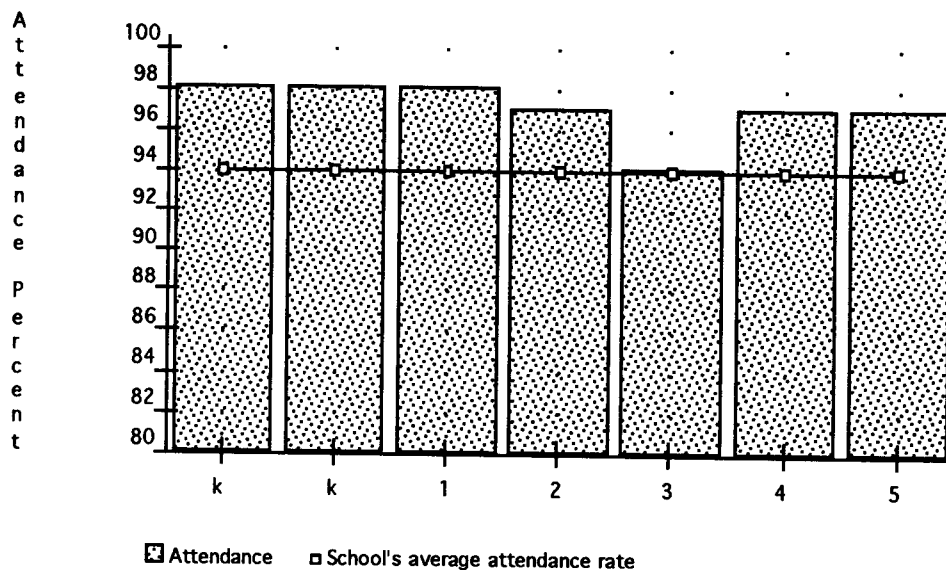
Under which instructional intervention did Mr. Energy exhibit the highest rate of attendance?

As shown in Table 76, Mr. Energy's highest attendance rates were at or above the district average throughout his schooling. His attendance was lowest during third grade while he had reading under DI. His attendance per



cents were equal during second, fourth and fifth grades.

Table 76. C.S. #9: Yearly Attendance Average

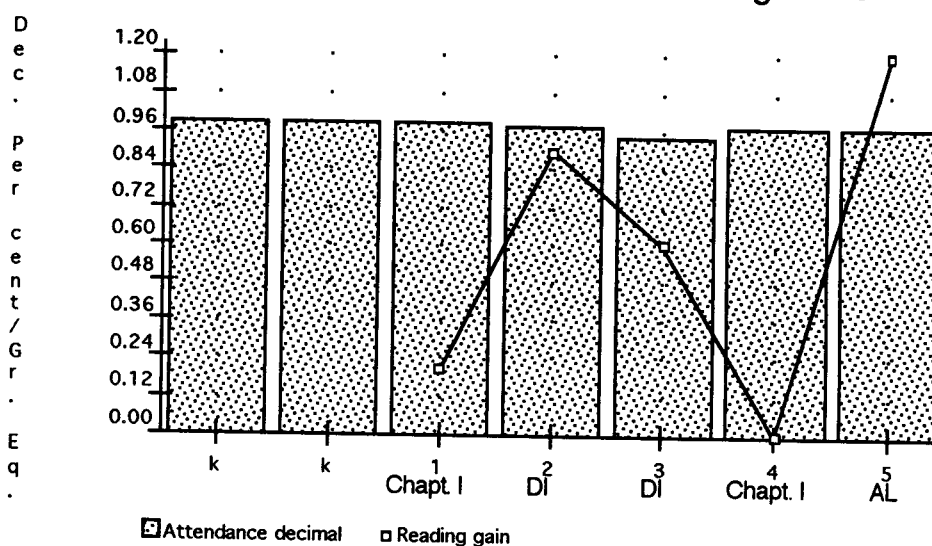


Attendance percentage was investigated as a possible factor either affecting Mr. Energy's reading gains or being affected by specific interventions. For example, if his gains were lowest during times of decreased attendance, then attendance could be construed as negatively impacting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could possibly be construed that the type of instruction was a factor in encouraging Energy's absences.

On Table 77 the bar graph indicates attendance

percentage and the line graph indicates reading gains. While reading gains were highest in second, third and fifth grades, attendance was highest in grades K-1. When attendance was lowest, in third grade with 94%, his reading gain was highest.

Table 77. C.S. #9: Attendance & Reading Gains



From the data, no consistent pattern emerges to substantiate a relational impact between attendance, reading instruction and/or reading gains.

### *Academic*

Under which instructional intervention did Mr. Energy have the highest g.p.a.?

As Energy entered the AL program as a fifth grader, the

year he began receiving letter grades and grade point averages, it is not possible to compare g.p.a.'s. Furthermore, as there is little information on report cards detailing the amount of work adaptation, if any, for Energy, no academic comparison is possible.

### *Student Attitude*

**What were the most common major factors Mr. Energy gave for his achievements in reading?**

In a phone interview a few days before he was to begin sixth grade, Mr. Energy was given information on his reading gains as documented in this report. After a brief explanation of the different reading methods he had experienced, he was asked why he thought he achieved the most under the AL Method. He said he liked to work on the board.

A list of possible reasons he might choose to explain his reading gain was read to him. From this list he thought music, relaxation, activities, a small group, reading aloud, games, contests, and individual attention were the most important factors encouraging his reading gain.

When asked him under what circumstances he thought he could succeed in the regular reading classroom he responded that he thought he could do best if he could read aloud alone with the teacher. He said he didn't like to be taken out of his regular class. When given a list of possible strategies for learning in the regular classroom he positively responded to use of AL, games and activities.

### Conclusion

No instructional method has appeared to influence Energy's personal growth and study habits. These remained problem areas throughout his school career.

It is evident that Energy experienced his highest gain in reading under the AL method. His average for AL was three month higher than his average for DI and more than twice the average of the ESD's learning disabled population.

Energy's yearly attendance averages remained relatively stable and at or above the target school's average of 94%, therefore, his no instructional affect appeared to influence attendance.

Due to lack of letter grades and report card notations regarding subject adaptations, it is not possible to assess a relationship between instructional intervention and g.p.a.

Energy commented in an interview that he thought many of the AL strategies were the most helpful to him.

## Case Study #10: Ted

### Description

Subject #10 is a small, sometimes shy boy who often reverts to baby-talk. However, he is also congenial and well-liked by his peers. He qualified as learning disabled in second grade. He has a normal I.Q. as measured by the Wechsler Intelligence Scale-Revised.

### Regular Education: Kindergarten through March of Second Grade

Ted's school cumulative file is incomplete. Though it includes data on attendance, family and medical information, there are no academic reports while he attended kindergarten through second grade in another school district.

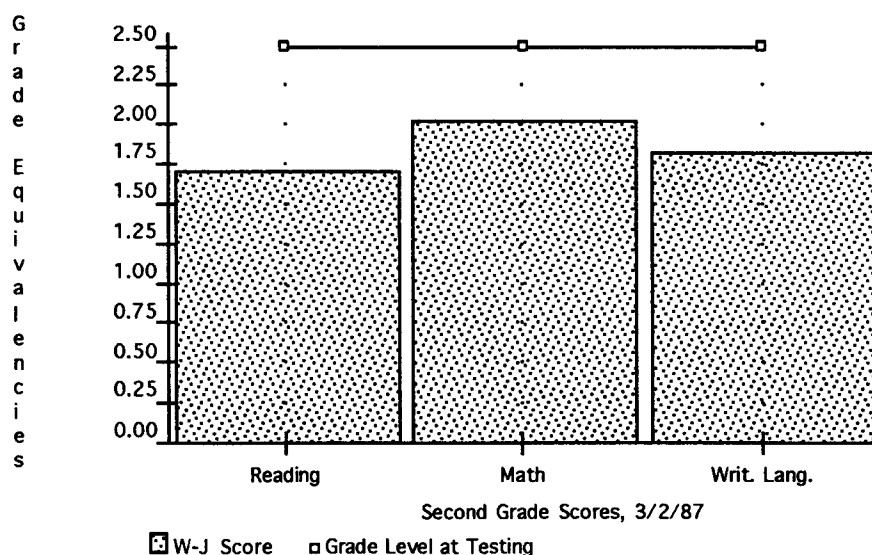
### Unknown Methodology in Special Education: April of Grades 2-4

In March of second grade Ted was referred for special education assessment. His psychological report notes that even though he was a good worker in the classroom and had a good attitude he had "...a history of academic difficulties beginning with kindergarten and 1st grade...even with

assistance in the remedial reading program, he is struggling in reading this year in 2nd grade...His teacher notes that he has difficulty remembering words. Comprehension is weak and he has difficulty with math facts, both retention and reasoning." Reading, math and language arts special education intervention was recommended along with communication disorder services to strengthen his receptive language skills.

Ted's first W-J test scores, figured from second grade testing on March 2, 1987, were 1.7 for reading, 2.0 for math and 1.8 for written language skills. These scores are shown on Table 78.

Table 78. C.S. #10: First Scores on W-J



Eclectic Instruction in Special Education:  
Grade 5

Ted transferred to the target school as a fifth grader. His fall testing grade equivalency scores in reading, math and written language were 3.3, 2.6 and 3.6 respectively.

During Eclectic instruction Ted enthusiastically participated in all phases of oral reading and contests. His work habits were efficient and everyone in the class liked him.

Report card comments for fifth grade indicate that science and social studies work was adapted for Ted in the regular classroom. His citizenship was good and he was "a pleasure to have in class."

His grade point averages for first and second semesters were 2.5 and 3.167 respectively. His grade point average for the year was 2.8335.

Ted ended the year with W-J scores of 4.4 in reading, 3.6 in math and 4.2 in written language, grade equivalency gains of 1.1, 1.0 and .6 respectively.

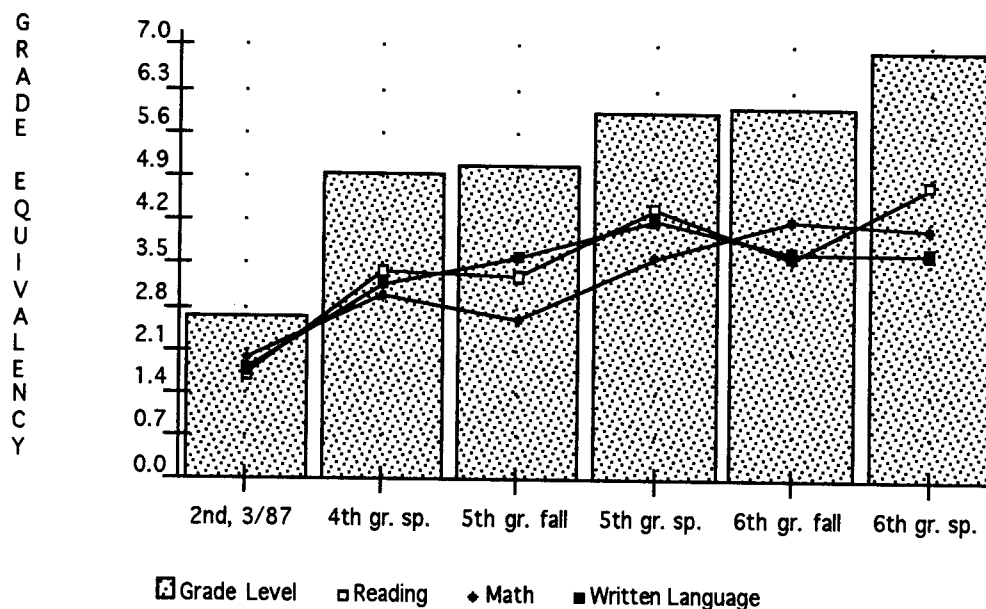


Accelerated Learning in Special Education:  
Grade 6

Ted enthusiastically participated in every phase of AL. He put his head down during relaxation and visualization time. He volunteered eagerly for participation in every activity. He read at home and he made efficient use of time in class.

Ted gained one year and two months in reading one month in math and no gain in written language while in the sixth grade. All of his W-J scores are plotted on Table 79.

Table 79. C.S. #10: 2nd-6th Grade W-J Scores



The comments on Ted's sixth grade report card indicate

that by second semester neither science nor social studies were adapted to Ted's abilities. He was able to succeed in the same work as the other sixth grade students.

Ted's first and second semester grade point averages were 3.333 and 3.0 respectively. His grade point average for the year was 3.167.

### Summary

#### *Behavior*

Under which kind of instructional program was Ted reported with the highest degree of positive study habits and personal growth?

Report card comments were the most positive during his sixth grade year while he had AL instruction for reading. However, kindergarten through fourth grade academic records are missing from Ted's files so analysis of this question is incomplete.

#### *Achievement*

Under which kind of instructional program, regular or special education (specifically Direct

**Instruction, Eclectic or Accelerated Learning) did Ted experience his highest gains in reading?**

Ted's greatest reading gains were realized in sixth grade under AL reading instruction. His specific W-J fall and spring reading test scores, beginning with his qualifying score in second grade, are shown on Table 80.

**Table 80. C.S. #10: W-J Reading Scores**

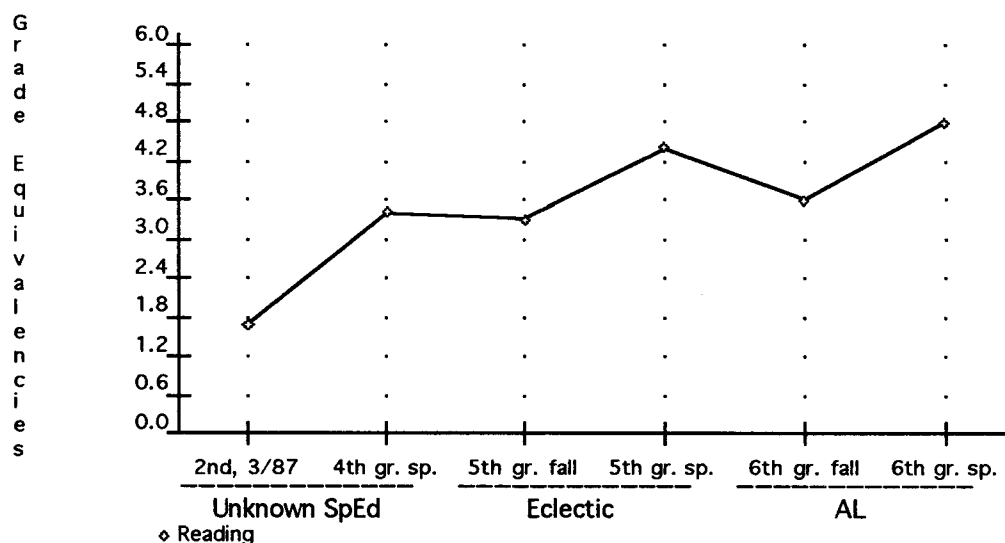


Table 81 depicts Ted's averaged reading gains in relation to the kind of instruction he received. The average expected gain is 1.0 in any academic year. A regular education reading gain average was determined by dividing the grade equivalency of Ted's first W-J score, 1.7, by the

amount of schooling he had experienced before his testing,

2.6. This calculates to a .65 average gain per year.

The average of almost seven months a year (actual score is .67 months) for his first two years and four months of special education service was determined by subtracting his initial W-J score, 1.7, from his fall fifth grade score, 3.3, and dividing the result by the number of years of schooling he had before he took his fifth grade test, which was 2.4. His average reading gain during Eclectic instruction was one year and one month and his average during AL was one year and two months.

Table 81. C.S. #10: Average Gains in Reading

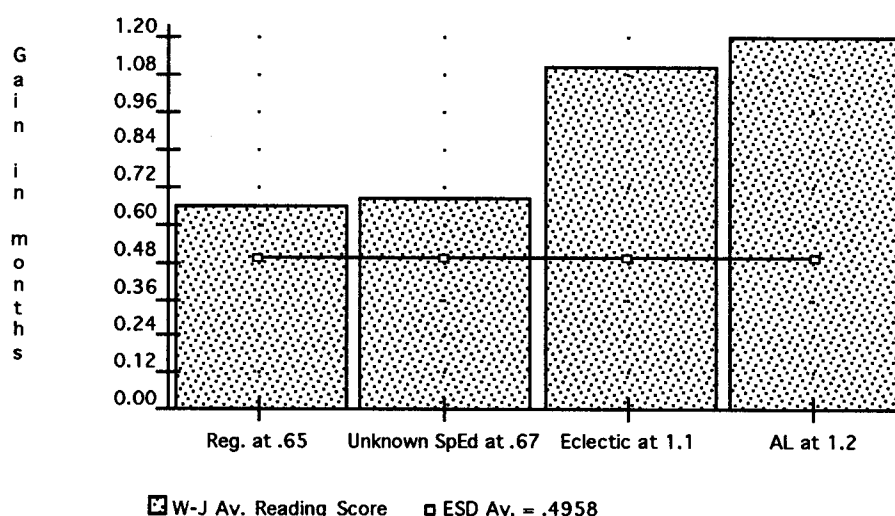
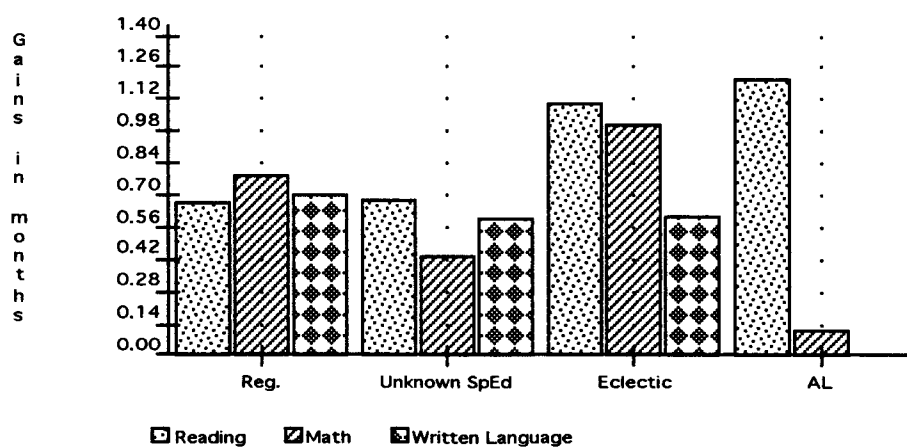


Table 81 also shows that Ted's gains in reading are consistently higher than the ESD average. It also shows that both Eclectic and AL methods were similarly successful in teaching Ted reading skills.

Table 82 compares Ted's reading gains with those of his other basic skills, as also addressed within his special education curriculum. In his early years, during regular and unknown special education instruction, similar gains were made in all areas. However, during Eclectic and AL interventions, results varied. Under Eclectic Ted made his greatest gains in math and stable gains in written language. However, during AL, when he made his greatest growth in reading, he made a very small growth in math and none in written language.

Table 82. C.S. #10: Comparison of W-J Gains



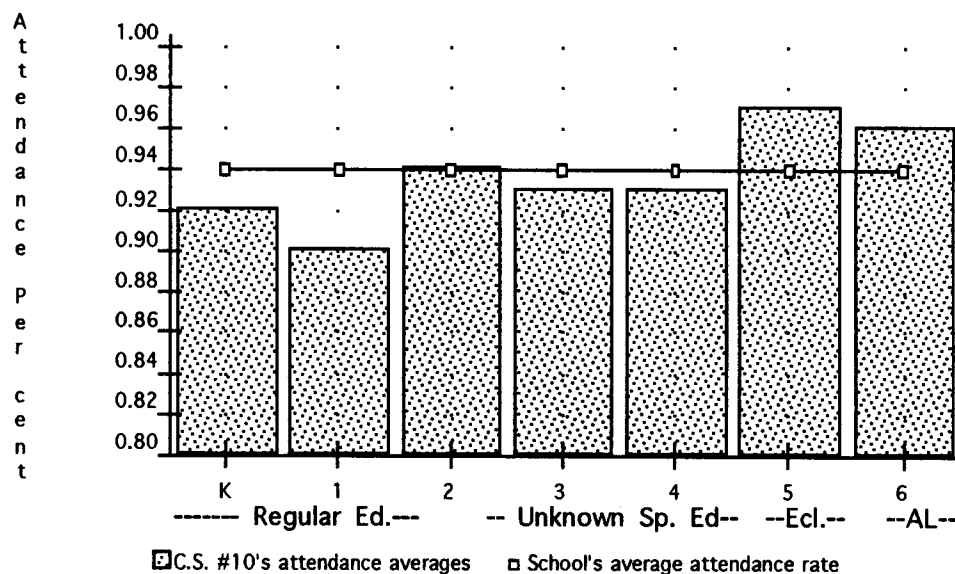
Therefore, from the data available, no pattern emerges to suggest reading gains impacted other basic skill achievement gains.

### *Attendance*

Under which instructional intervention did Ted exhibit the highest rate of attendance?

Table 83 depicts Ted's attendance rate, highest at 97%, during the Eclectic method and second highest at 96%, during the AL method. It was lowest, 90%, in first grade and second lowest, 91%, in third grade during his first full year in special education.

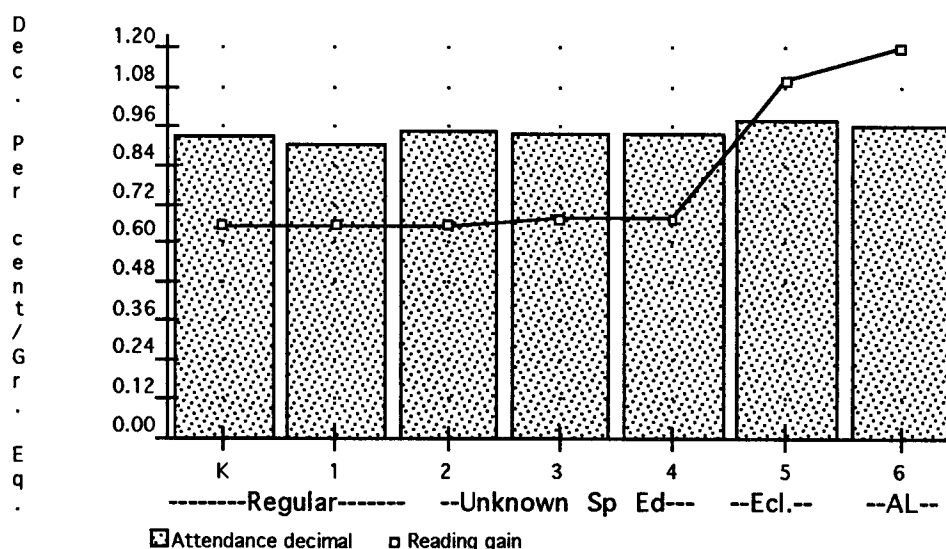
Table 83. C.S. #10: Yearly Attendance Averages



Attendance percentage was investigated as a possible factor either affecting Ted's reading gains or benefitting from specific interventions. For example, if his gains were lowest during times of decreased attendance, then attendance could be construed as negatively impacting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could possibly be construed that the type of instruction was a factor in encouraging Ted's absences.

Table 84 shows columns indicating attendance percentage and a line graph indicating reading gains.

Table 84. C.S. #10: Attendance & Reading Gains



When Ted's average reading gain was at its lowest he was in regular and unknown special education instruction and his attendance was at its lowest. During Eclectic and AL reading interventions, his attendance was at its highest and his reading gains were also at their highest. This pattern suggests that attendance may have positively impacted reading gains or that Eclectic and AL learning methods positively encouraged attendance.

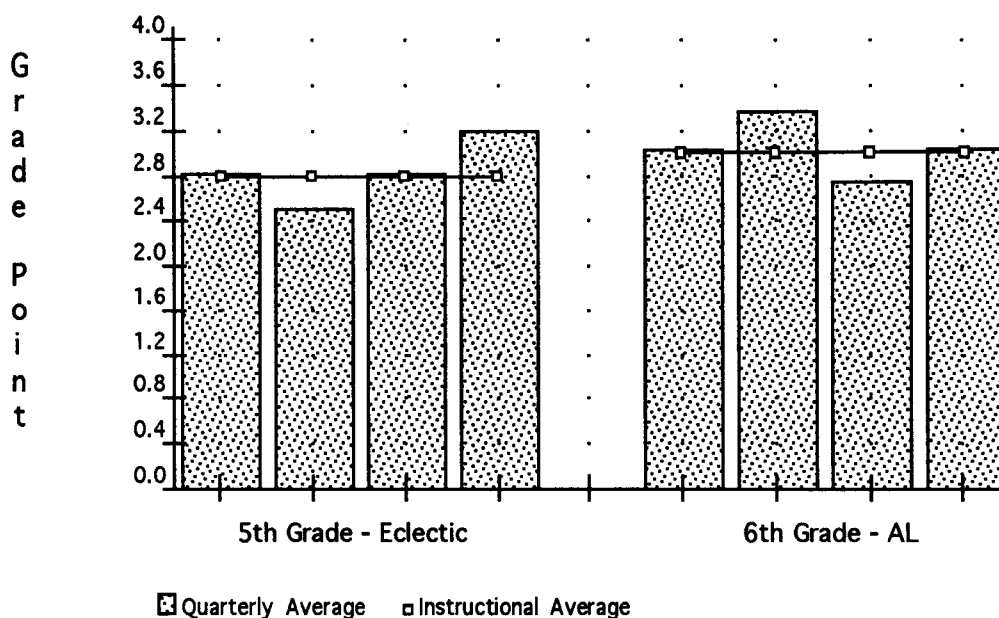
### *Academic*

**Under which instructional intervention did Ted have the highest g.p.a.?**

There is no academic information in Ted's records until fifth grade, the year he registered in the target school. During his fifth grade, while under Eclectic reading instruction, his average g.p.a. was 2.8. But he had his highest yearly grade point average, 3.0, and his highest quarterly grade point, 3.33 in sixth grade while receiving AL reading instruction. All of his quarterly grade points are depicted on Table 85 along with his yearly grade point averages.



Table 85. C.S. #10: GPA and Instructional Method



### *Student Attitude*

What were the most common major factors Ted gave for his achievements in reading?

In an interview with Ted on 1/17/92, he was shown the graphs on his progress contained in this report. When asked why he felt he made his greatest gain under the AL method he said, "Because I felt like it." When pressed he said he thought the games, contests, reading aloud, interesting reading materials and reading at home helped him achieve the most his sixth grade year.

When asked what circumstances would make him feel like he could succeed in the regular classroom he said, "I don't know." When pressed he thought reading aloud might "sort of" help, but he was generally unresponsive because he said he had forgotten what his classes had been like.

### Conclusion

Ted's report card comments were most positive during his sixth grade year while under AL reading instruction.

Ted experienced his highest gain in reading under Accelerated Learning though his achievement under Eclectic instruction was just one month less. No pattern emerged to suggest reading gains impacted other basic skill achievement gains.

He had his highest attendance rate during the AL method. When compared to reading gains, a pattern emerges that suggests that attendance may have positively impacted reading gains or Eclectic and AL learning methods may have positively encouraged attendance.

Ted experienced his highest g.p.a. while receiving AL

reading instruction.

Ted's comments about what he thought contributed most to his reading success included a strong desire to improve.

## V. CONCLUSION

### Cross-Case Analysis

Each individual case study contributed convergent evidence to address the problem statement's goal of showing the effects of teaching reading using Accelerated Learning methodology with ten learning disabled middle school students. A question-and-answer format was used following the same series of questions and answers covered in each individual case study. Data analysis of the case study data involved examining, categorizing and tabulating the evidence.

The following questions for cross-case analysis were studied to discriminate the effects of the AL approach.

#### Behavior

**Under which instructional intervention did students exhibit the most positive student behavior attributes?**

Neither reading instructional methodology nor average reading gain appeared to show an impact pattern upon student study habits or personal growth attributes in the regular

curriculum.

An inference from studying all the data is that the behavior of the students throughout their schooling changed very little from their kindergarten and first grade reports. The only exceptions involved three retainees whose repeated year report cards listed more positive comments than any other year, and one student's religious experience.

### Achievement

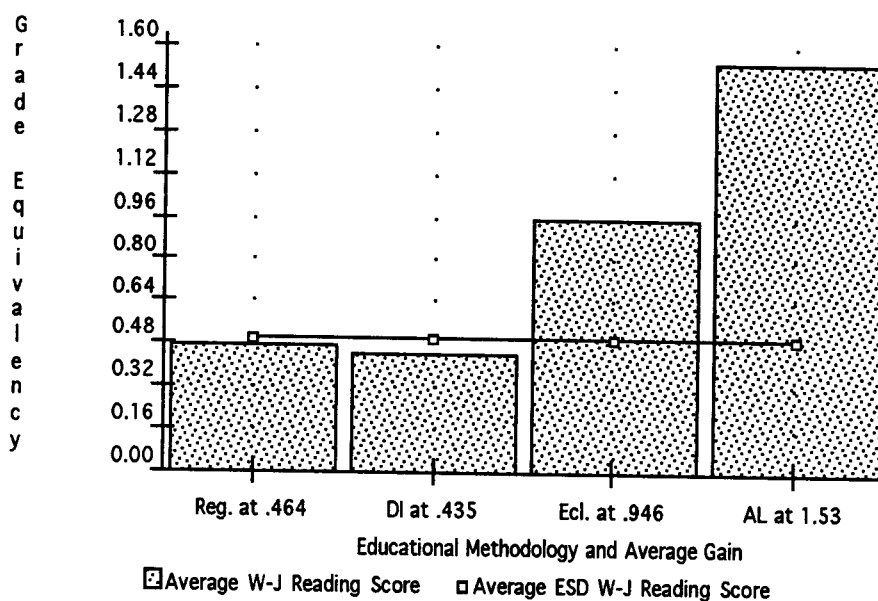
Under which instructional intervention, regular curriculum or special education program, (specifically Direct Instruction, Eclectic or Accelerated Learning) did the students have the highest average achievement in reading?

The students realized their greatest gains in reading under Accelerated Learning reading instruction. Table 86 depicts their averaged reading gains in relation to the kind of instruction in reading they received. The average expected gain is 1.0 in any academic year for a non-handicapped student.

Table 86 also compares their averaged reading gains to

the average yearly gain, .4958, documented by ESD#112's population of learning disabled students. The case study gains under AL, 1.53, are more than three times greater.

Table 86. Case Study Average Gains in Reading



Although Case Study #6 was instructed in reading under the Stevenson Language Skills Program (SLSP), his average gain (.38), was computed under Direct Instruction because its teaching method is similar to DI. The DI average without C.S. #6 is .461.

In comparing reading gains to the math and written language W-J scores of all the case studies, five cases had

their highest cumulative scores of math and written language during AL instruction for reading. In four cases it occurred during Eclectic and in one case occurred during Direct Instruction.

### Attendance

**Under which instructional intervention did students exhibit their highest rate of attendance?**

The students exhibited their highest rate of attendance while involved in Eclectic instructional methodologies for reading. However, their average attendance rates during regular instruction and each instructional treatment varied only four percentage points, ranging from 92 to 96 percent.

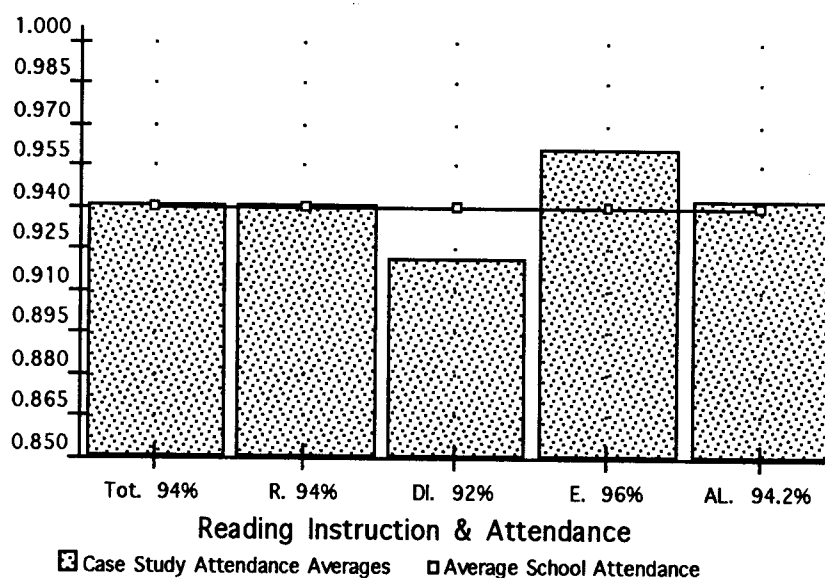
Like behavior, the attendance habits of the case studies evident in kindergarten and first grade closely matched the attendance averages they experienced throughout their schooling. Each total individual attendance average matched respective kindergarten averages within three percentage points.

The total attendance average for all ten case studies

was 94.5%, similar to the school district's attendance average which is approximately 94% (Quinn, 1992).

The total attendance average for all ten case studies while exclusively in the regular curriculum was 94%. The average under Direct Instruction intervention, inclusive of the Stevenson Program, for reading was 92%, the lowest rate. The total Eclectic attendance average was highest at 96%. The total AL average was 94.2%. The averages are graphed on Table 87.

Table 87. Case Study Average Attendance



Attendance percentage was investigated as a possible factor either affecting reading gains or benefitting from



specific interventions. For example, if his gains were lowest during times of decreased attendance, then attendance could be construed as negatively impacting reading gains. Or, if attendance was particularly low during any specific instructional intervention, it could possibly be construed that the type of instruction was a factor in encouraging absences.

From the case study data, no consistent pattern emerged to suggest a relational impact between attendance, reading instruction and/or reading gains.

### Academic

**Under which instructional intervention did the students have the highest grade point average.?**

The case studies' cumulative grade point average (g.p.a.) was highest while under AL instruction. However, a complete comparison between all the case studies and their grade point averages under Direct Instruction, Eclectic and Accelerated Learning cannot be made not only because there were grading system differences between the Christian

school and target public school, but also because there were different grading systems used for different grade levels within the target school.

In the Christian school the two case studies affected were "graded" according to the average percent they earned on individualized lessons called Paces. These percentages were accompanied by a yearly California Achievement Test (CAT) score and personal growth and development comments. A student could earn a high percent but have completed few paces and received a low CAT score.

In the target school district, the earliest report cards, K-4, are primarily written commentaries. Strengths and weaknesses in academic coursework, study habits, social and personal growth are addressed and are delivered to parents at parent-teacher conferences. A student may receive a glowing commentary yet be functioning far below grade level because the coursework was adapted to meet the student's reading and writing abilities. Until recently, teachers regularly adapted content area work for their students without report card documentation.

In fifth grade the target school begins using the A-F grading system. An asterisk or specific computer notation is used when a teacher wants to indicate adapted coursework.

Six of the ten case studies had grade point averages while receiving AL reading instruction that could be compared to earlier grade point averages. Because special education students needing additional help in the content area classes are assigned to a study skills class, it is difficult to tell the impact of an instructional treatment alone on g.p.a.

On Table 88, the average g.p.a.'s earned while receiving reading instruction under the Eclectic method and the AL method is listed for each case study. A single asterisk denotes a full year's participation in the study skills class. A double asterisk denotes only second semester participation.

Table 88 shows that the approximate average g.p.a. during Eclectic instruction was 2.7 and during Accelerated Learning was 3.0.

Table 88. GPA and Instructional Method

<b>Case Studies</b>	<b>G.P.A. while in Eclectic</b>	<b>G.P.A. while in AL</b>
Case Study #1	2.85	3.31
Case Study #2	2.65	3.36**
Case Study #4	2.56**	3.0*
Case Study #5	2.8	3.188
Case Study #6	2.375*	3.0*
Case Study #7	3.0*	2.7*
Case Study #10	2.8	3.0
<b>Averages</b>	<b>2.706</b>	<b>3.093</b>

### Student Attitude

What were the most common reasons students gave for achievement under the instructional program they gained the most?

Each case study was shown his/her respective achievement tables. They were explained and discussed. The students had generally forgotten past instructional programs so their memories were briefly refreshed.

Upon asked "Why do you think you made your greatest reading gains under the AL method (In Case Study #4's case it was the Eclectic method)?" students responded differently. But when given a list of 24 possibilities, ninety percent included contests as something that helped them reach their highest achievement. Eighty percent responded

affirmatively to reading aloud and seventy percent noted that liking the materials helped. Sixty percent said a small group, a funny teacher and games were helpful. Fifty percent said activities, instruction in comprehension, drama and individual attention were helpful. Lowest ratings were given to strictness (10%), music (20%) and lots of drill (20%).

Table 89 shows the rank order of items the students chose as reasons for their greatest gains in reading.

Table 89. Questionnaire Results

<u>REASONS FOR HIGHEST READING GAINS</u>	
contests	90%
reading aloud	80%
liked materials	70%
small group, funny teacher and games	60%
activities, comprehension instruction, drama and individual attention	50%
relaxation, games, independent work, homework, help at home and	
desire for higher class	40%
motivational movies, motivational strategies, fun, phonics taught	30%
music and lots of drill	20%
strictness and structured	10%

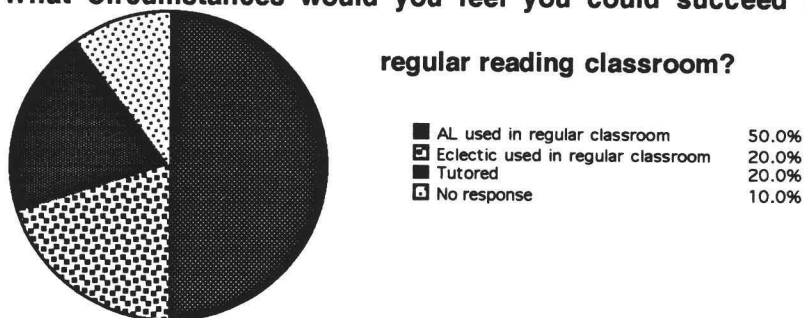
Some of the key elements of AL, like the music, relaxation, and motivational strategies, were not perceived

by the students as having a dominant impact on their success. However, those items ranked by 90-50% of the case studies were included in both AL and Eclectic instruction. Drill (20%) and structure (10%) are the items most specific to DI. Oral reading (80%) is emphasized in all three.

When asked under what circumstances they thought they might be able to succeed in the regular reading classroom, 50% thought they could if AL were used, twenty percent if Eclectic methods were used and twenty percent thought they could be successful if they were tutored. Case Study #7 did not answer the question. Table 90 depicts their responses.

Table 90. Student Attitude

**Under What Circumstances would you feel you could succeed in the regular reading classroom?**



When asked to be more specific about what they

thought would help them succeed in the regular classroom, 50% of the students indicated games and activities. Forty percent said reading aloud would help and 30% said dramatics would help.

### Summary

Though no pattern appeared in the cross-analysis to suggest that behavior or attendance were impacted by any instructional reading treatment, a strong pattern did emerge in reading achievement gains. While one student had his highest gain under the Eclectic program, the other nine students had their highest gains under Accelerated Learning. Also, the average case study reading gain after reading instruction under AL, 1.53, was more than three times greater than the DI and ESD averages, which were .44 and .4958 respectively.

Grade point average were not able to be compared due to inconsistency of data from several students.

Some of the basic strategies of AL that differ from Eclectic instruction, like music, relaxation, and motivational visualization, were not perceived by the students as

impacting their reading success. They saw contests, reading out loud and using materials they liked as the highest contributors to their reading progress.

The single effect of AL for nine of the ten case studies was observed gains in reading ability. No other effects could be substantiated from the data analysis.

### Implications

1. The data from these particular case studies suggests that they learned best when taught through a multi-modality method that incorporated music, activity, relaxation and drama.

2. These case studies suggest that learning disabled students could succeed in the regular reading class if it were taught with AL methods.

3. Possible financial savings from special education expenditures could be channelled to other educational programs.

### Suggestions for Further Study

1. Further studies are recommended in using AL



methods in teaching learning disabled students in other academic areas like language arts, spelling, math, social studies and science.

2. A pilot project in teaching a regular classroom reading using AL methods is recommended.

3. If the pilot project for teaching a regular classroom reading using AL methods proves successful, then a pilot project integrating learning disabled students into a regular, but AL-taught reading class would be recommended.

4. A quantitative statistical analysis using a greater number of subjects is recommended.

5. A meta-analysis study should be conducted using previous data which has focused on AL methodology on learning gains for middle school students.

#### Critique: Criteria for interpretation of findings

The four tests used to critique case studies are construct, internal and external validity and reliability (Yin, 1989). The tests are defined by Yin (Yin, 1989, pages 40-

41), in terms of the case study, as follows:

*Construct validity:* establishing correct operational measures for concepts being studied;

*Internal validity:* (for explanatory or causal studies only, and not for descriptive or exploratory studies): establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships;

*External validity:* establishing the domain to which a study's findings can be generalized; and

*Reliability:* demonstrating that the operations of a study--such as the data collection procedures--can be repeated, with the same results.

These tests are discussed as follows.

### Construct validity

The construct validity of this study is concerned with the extent to which AL affects reading gains of LD middle school students in a target school district. The tactics Yin (1989) recommends to deal with the construct validity test include using multiple sources of evidence, establishing a chain of evidence and having participants review each case study report and involved instructors review relevant sections.

#### 1. Multiple sources of evidence

The following table lists the data, evidence and information found for each case study and their sources.

Table 91. Sources of Evidence

<u>Data/Evidence/Information</u>	<u>Source(s)</u>
1. W-J scores	Original W-J test booklets found in Confidential & Special Education files
2. Attendance records	District office archives & Cumulative files
3. Behavior records	Report cards in Cumulative files, psych. report in Confidential files and teacher interviews
4. Grade point averages	Cumulative files
5. Personal information	Parent and student interviews
6. Questionnaire	Student interview
7. I.Q. and handicapping condition	Confidential file

## 2. Chain of events

Each case study is written in chronological order with graphs and tables to show progression of attendance, grade point average, W-J scores and gains. All known intervening experiences and events were discussed in the accompanying narrative.

## 3. Key participants and involved instructor review relevant reports

The following table lists the study reports and their respective reviewers.

**Table 92. Reviewers**  
**Study Report and Reviewer**

<u>Study Report</u>	<u>Reviewer</u>
<b>METHODOLOGY</b>	
Units of Analysis	Instructional Assistant
Treatments	
Direct Instruction	Instructing SpEd Teacher
Eclectic	Instructional Assistant
Accelerated Learning	Instructional Assistant
<b>CASE STUDIES</b>	
Maturity	Student and parents
Christi Brinkley	Instructional Assistant
Blues Brother #1	Student
Blues Brother #2	Student
Bob Boeing	Student
Huck Finn	Student
Felix Ungar	Instructional Assistant
Mr. Energy	Instructional Assistant
Ted. E. Bear	Instructional Assistant
<b>CONCLUSION</b>	Instructional Assistant

### Internal validity

The internal validity for this study has been tested by pattern matching and replication. In nine of the ten case studies reading gain increased when students were involved in AL instruction. The one exception, Case Study #4, occurred when special education intervention began with an eclectic method similar to AL. His second highest gain in reading was earned while under AL.

An investigation of internal validity requirements, as listed in Stanley and Campbell (1963), follows to help

validate this study's conclusion that AL made a difference in the reading achievement of LD middle school students.

1. *History* : The AL treatment occurred for all students during the 1990-91 school year. All of the case studies were enrolled in an AL class for 220 minutes per week. Two classes were in the morning and one was in the afternoon. Case Study #9 was the only participant in an afternoon class.

2. *Maturation* : It is possible that the maturity level of LD students served during this particular study was on a different time table than the norm. It could be hypothesized that the reason they had difficulties with reading in elementary school was because their readiness-to-learn-to-read timetable was geared for middle school. This anomaly, if proven, could be related to delays in neurological development, study skill habits, personal growth and development or cultural differences peculiar to the target school district.

As the raw data for each case study is tabulated chronologically and contrasts elementary reading gains

(Stevenson and DI methods) with middle school reading gains (Eclectic and AL methods), the question arises: As these case study participants entered middle school, did they become more receptive to reading instruction?

One refutation is that Case Studies #3, #4, and #5 entered the middle school without special education placement. Their reading gains under regular instruction at the middle school were much lower than when under special education intervention.

A suggestion for further study would be to teach reading to learning disabled (LD) students at the elementary level in the target school district and compare their gains, as measured by the W-J, to previous target school elementary LD reading gains. Through that experiment it could be more certainly decided whether AL, not maturity, was the reason for highest reading gains while under AL reading instruction.

3. *Testing* : It is understood that repeated testing familiarizes, lessens anxiety and acquaints students with test expectations. Rank ordering of the case studies with

the number of times they each took the W-J and their respective reading gains from AL instruction is shown on Table 93.

Table 93. Repeated Testing and AL Gain

Rank Order	Case Study	# of Tests	AL gain
1	3	4	3.2
2	6	14	2.8
3	2	14	1.7
4	7	11	1.2
4	9	10	1.2
4	10	6	1.2
5	1	10	1.1
5	5	6	1.1
6	4	4	1.0
7	8	5	.8

A pattern does show up indicating that most of the case studies who had been tested many times had higher gains than those who did not. Whether this indicates that the longer in special education the more likely the student is to have higher gains in AL, or the longer receiving DI the more likely the student is to have higher gains in AL, or whether it is related to the testing itself is difficult to infer from this data.

4. *Instrumentation* : At least three different people administered the W-J throughout the elementary and middle

school years. However, each of the testers in the target school district were trained in consistent administration practices. Also, a script comes with the test to increase consistent administration replication.

There were no changes in tests forms, administration procedures or scoring of the W-J in the target school district.

5. *Statistical Regression* : The total population available was used in this study. There were no exclusions. Extreme scores would be coincidental.

6. *Bias* : Total populations were used in this study. There was no selection procedure. The control group's average reading gains, provided by ESD #112 through Project Progress, was gained by taking the raw data provided in Project Progress and averaging reading gains on the W-J by all learning disabled students within the ESD's jurisdiction.

7. *Experimental Mortality* : Students who moved during the AL treatment were not included in this study and only full academic year participants were documented included in Project Progress control data.



8. *Selection-maturation interaction* : This study resembles a nonequivalent control group (NCG) design in that all groups and each case were given pre and posttests (W-J) but none were at any time chosen according to pre-experimental sampling equivalence. Rather, as Stanley and Campbell (1963) similarly define NCG, the groups and case studies contributed a naturally assembled collective as similar as availability permitted yet not so similar that the pretest could be omitted.

However, unlike a NCG design, the experimental participants were not randomly assigned to experimental or control groups. Therefore, it is possible, when comparing their AL gains to ESD gains that this population may have coincidentally matured faster while in AL. However, a contra-indicator is that the case studies' elementary reading gains were similar to the ESD average. It was only after Eclectic and/or AL instruction that big differences in reading gains between the ESD and target school district learning disabled population emerged.

Furthermore, this large growth in reading gain due to

AL intervention has also been documented by other studies involving students of all ages (Schuster and Gritton, 1986, Schuster and Pritchard, 1978 and Prichard and Taylor, 1981). However, it would be advisable to test this method at the elementary level in the target school district to further account for possible maturational factors particular to this particular target school district community.

#### External validity

Through replication and extensive historical data, external validity can be ascribed to the population studied, the learning disabled special education middle school students in the target school district. Statistically the research cannot be generalized to any further population. Analytically, the research adds to already published studies on AL that multi-modality instruction inclusive of the arts, i.e. music, drama and activities of artistic expression, and relaxation and exercise, contribute to higher achievement gains than more traditional instructional methods (Lozanov, 1978, Stevick, 1983 and Moon, 1986) .

### Reliability

The data collection procedures were repeated numerous times to assure accuracy in reporting and calculation. When errors were found they were corrected and the procedures and calculations were again repeated to assure accuracy. It is assumed further replications of the same case studies could be conducted ending with the same results because a case study plan and protocol was developed and followed exclusively. Raw data charts and a master grid were also compiled. These documents are found in the appendices.

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## APPENDICES

## APPENDIX A

### Outline of the Plan and Protocol

The following outline gives the plan and protocol used for conducting this case study on learning disabled middle school students exposed to Accelerated Learning treatments in reading instruction during the academic year of 1990-91.

1. Purpose: to discern the reason specific students made comparatively large gains in reading during one particular instructional year as well as to discern the affect of the Accelerated Learning (AL) treatment in teaching reading upon learning disabled (LD) middle school students.

2. Key Features of the Case Study Method:  
investigation of variables contributing to specific achievement over the academic life of each case

3. Organization: Introduction with rationale for study and study design, literature review, problem statement, questions of case participants, study, propositions, methodology, treatment descriptions, conclusion, critique, bibliography, and appendices.

#### I. Procedures

##### A. Initial Scheduling of Treatment

1. permission from ESD supervisor and building principal

2. training in method
3. preparation and supplies

**B. Determination of Cases**

1. those qualifying as LD
2. those LD unable to succeed in regular curriculum or advancing to LAP

**II. Case Study Protocol**

**A. Definition of terms:** Accelerated Learning, Direct Instruction, Eclectic Program, and Learning Disabled

**B. Investigational areas (variables):** behavior, achievement, attendance, academic grades, and attitude

**C. Analysis Plan and Case Study Reports**

**1. Individual case study reports**

- a. description
- b. early education -not special education
- c. sp. ed. Direct Instruction
- d. sp. ed. Eclectic
- e. sp. ed. Accelerated Learning
- f. summary

**2. Cross-case analysis**

- a. description
- b. early education -not special education
- c. sp. ed. Direct Instruction

- d. sp. ed. Eclectic
  - e. sp. ed. Accelerated Learning
  - f. cross-case report
- D. Pilot Case Study
- E. Participant Review

## APPENDIX B

## Case Study Master Data Grid

		C.S.#1	C.S.#2	C.S.#3	C.S.#4	C.S.#5	C.S.#6	C.S.#7	C.S.#8	C.S.#9	C.S.#10	AV.
<b>DEMOGRAPHICS</b>												
Gender	fem	fem	male	male	male	male	male	male	male	male	male	
LQ.		93	91	92	86	81	83	83	91	91	92	88.3
Age at AL Instr.	13-14	14-15	13-14	32489	14	32458	13	11	32458	32489	12.65	
Grade at AL Instr.	8	8	8	8	7	6	6	5	5	6	6.7	
Ethnic-Economic	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	W-MC	
<b>YEARS IN PROGRAM</b>												
<b>Regular Education</b>												
Reg. Curriculum		4.3	2.6	7	6.5	2.2	0	2	5	2	unknown	
Chapt 1 or RAP/LAP		0	0	0	0	5	0	0	1	2	unknown	
Total Reg. Ed.		4.3	2.6	7	6.5	7.2	0	2	6	4	2.6	4.689
<b>Special Education</b>												
DI & Stevenson		1.7	3.4	0	0	0	4	4	0	2	0	1.51
Eclectic		2	2	0	0.5	0.8	1	1	0	0	1	0.83
Accelerated Learning		1	1	1	1	1	1	1	1	1	1	1
Unknown							2				2.4	0.44
Total Spec. Ed.		4.7	6.4	1	1.5	1.8	8	6	1	3	4.4	3.78
<b>AV. GAINS IN READING</b>												
<b>Regular Education</b>												
Reg. Curriculum		0.535	0.46	0.83		0.45	none	none	0.52	0.1	0.65	
Christian Schl				0.55	0.41							0.48
Chapt 1 or RAP/LAP										0.1		
Total Reg. Ed.		0.535	0.46	0.59	0.41	0.45	none	none	0.52	0.1	0.65	0.464
<b>Special Education</b>												
DI & Stevenson		0.059	0.56				0.33	0.325		0.9		0.4348
Eclectic		0.8	0.65		1.6	0.375	1.1	1			1.1	0.946
Accelerated Learning		1.1	1.7	3.2	1	1.1	2.8	1.2	0.8	1.2	1.2	1.53
Unknown											0.67	0.067
<b>AV ATTENDANCE %</b>												
<b>Regular Education</b>												
Regular Education		89	99	91	91	97		93	96	98	92	94
DI & Stevenson		89					95	89		96		92
Eclectic		92	98		95	97	96				97	96
Accelerated Learning		88	96	88	88	98	98	99	94	97	96	94.2
Case Study Average		90	98	91	91	97	96	92	94	97	94	94
Middle School Av		94	94	94	94	94	94	94	94	94	94	94
<b>GRADE POINT AV</b>												
<b>Regular</b>												
Regular			0.69	1.97								1.33
Eclectic		2.85	2.66		2.56	2.8	2.375	3			2.8	2.721
Accelerated Learning		3.31	3.36	2.6	3	3.188	3	2.7	2.98	2.79	3.167	3.0095

## APPENDIX C

Woodcock-Johnson Psycho-Educational Battery  
Test Scores for Case Studies

Case Study #1		Woodcock-Johnson Test Scores					Reg. Av. = .535
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Av. gain for method
4	12/2/86	2.3	3	1.6	DI		(measured start to
	6/2/87	2.4	2.9	3.6	DI	0.1	finish)
5	9/14/87	2.4	3.2	3.1	DI		
	6/1/88	2.4	3.2	3.2	DI	0	DI = 0.059
6	9/1/88	2.6	4.1	3.1	Eclectic		
	5/25/89	4.4	4.4	3.6	Eclectic	1.8	
7	9/1/89	3.4	3.9	3	Eclectic		
	5/15/90	4.2	5.6	3.7	Eclectic	0.8	Eclectic = 0.8
8	8/30/90	4.5	4.4	4.7	AL		
	5/16/91	5.6	5.3	4.5	AL	1.1	AL = 1.1
Case Study #2		Woodcock-Johnson Test Scores					Reg. Av. = .46
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Av. gain for method
2	2/26/85	1.2	1.4	1.6	DI		
3	9/18/85	1.9	2.8	1.3	DI		
	6/1/86	2.2	3.7	2.2	DI	0.3	
4	9/9/86	2.6	3.7	2.5	DI		
	6/4/87	2.7	4	2.8	DI	0.1	
5	9/9/87	3	3.9	3	DI		
	2/29/88	2.8	3.4	2.9	DI		
	6/3/88	3.1	3.7	2.8	DI	0.1	DI = .56
6	9/9/88	3	4.1	3	Eclectic		
	6/1/89	4.1	5.2	3.6	Eclectic	1.1	
7	8/31/89	4.2	3.8	4.4	Eclectic		
	5/17/90	4.3	5.6	4.7	Eclectic	0.1	Eclectic = .65
8	9/6/90	4.1	5.5	4.7	AL		
	4/16/91	5.8	6.5	5.1	AL	1.7	AL = 1.7
Case Study #3		Woodcock-Johnson Test Scores					Reg. CS Av. = .55
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Av. gain for method
7	12/19/89	4	4.1	3.9	Regular		
	5/18/90	4.5	6.2	4.8	Regular	0.5	Reg. Mid. Sch. Av. = .83
8	9/7/90	5	5.8	6.2	AL		
	5/20/91	8.2	7.7	5.5	AL	3.2	AL = 3.2

Case Study #4		Woodcock-Johnson Test Scores					
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Reg. CS Av. = .41 Av. gain for method
7	12/1/89	3	5.7	3.4	Eclectic		
	5/17/90	4.6	6.8	4.4	Eclectic	1.1	Eclectic = 1.6
8	9/6/90	3.3	6.6	5.1	AL		
	4/10/91	4.3	9.4	6	AL	1	AL = 1.0
Case Study #5		Woodcock-Johnson Test Scores					Reg Av. = .45
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Av. gain for method
2	4/1/85	2			Chapter I		
4	2/1/88	2.8	2.2	1.8	Chapter I		
6	11/16/89	3.3	3.6	2.2	Eclectic		
	5/21/90	3.6	4.6	2.5	Eclectic	0.375	Eclectic = .375
7	9/4/91	3.8	3.4	2	AL		
	5/16/91	4.9	5.1	3.4	AL	1.1	AL = 1.1
Case Study #6		Woodcock-Johnson Test Scores					No reg. instruction
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Av. gain for method
1	9/5/84	Let. ID 1.0					
2	9/11/85	1	1.2	1	Steven.		
	6/2/86	1.5	1.5	1.1	Steven.	0.5	
2 repeat	9/10/86	1.4	1.2	1	Steven.		
	4/22/87	1.6	2.2	1.2	Steven.		
	5/29/87	1.6	2.2	1.8	Steven.	0.2	
3	9/11/87	1.6	1.5	1.6	Steven.		
	6/3/88	1.7	2.8	1.8	Steven.	0.1	
4	9/7/88	1.9	3	1.6	Steven.		(2.3/7=.328)
	5/17/89	2.3	3.1	2.5	Steven.	0.4	Stevenson Av. = .328
5	9/5/89	2	2.6	3.2	Eclectic		
	5/15/90	3.1	4	3.1	Eclectic	1.1	Eclectic = 1.1
6	9/5/90	3.2	3.7	1.8	AL		
	5/20/91	6	5.3	3	AL	2.8	AL = 2.8

Case Study #7		Woodcock-Johnson Test Scores					No reg. instruction	
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Av. gain for method	
1	5/1/85	1.2	1.6	1.1	DI	0.1		
2	9/10/85	1.3	1	1	DI	0.6		
3	9/8/86	1.9	2.4	1.8	DI			
	5/29/87	2.3	3.6	2.6	DI	0.4		
3 repeat	9/1/87	2.4	3	2.8	DI			
	4/27/88	2.6	3.7	2	DI	0.2		
4	9/7/88	2.8	3.6	3	DI			
	5/26/89	2.6	3.8	2.6	DI	-0.2	DI = .325	
5	9/1/89	2.4	3.2	2.5	Eclectic			
	5/10/90	3.4	3.6	3.1	Eclectic	1	Eclectic = 1.0	
6	9/4/90	2.9	3.4	3.1	AL			
	5/23/91	4.1	4.2	3.2	AL	1.2	AL = 1.2	
Case Study #8		Retained in K						
		Woodcock-Johnson Test Scores					Reg. Av. = .52	
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Av. gain for method	
3	5/1/89	2.8	3.9	3	Chapter I			
4	9/6/89	2.5	3.9	2.9	Chapter I			
	5/15/90	3	5.9	4.4	Chapter I	0.5		
5	8/31/90	3.1	5.8	3.9	AL			
	5/13/91	3.9	6.6	5.1	AL	0.8	AL = .8	
Case Study #9		Retained in K						
		Woodcock-Johnson Test Scores					Reg. Av. = .35	
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Av. gain for method	
1	10/1/86	1.2	1.3	1	Chapter I			
	5/8/87	1.4	1.5	1.5	Chapter I	0.2		
2	9/10/87	1.4	2	1.4	DI			
	6/2/88	2.3	3.1	2.5	DI	0.9		
3	9/8/88	2.6	3.1	2.2	DI			
	5/30/89	3.2	3	3	DI	0.6	DI = .9	
4	9/8/89	3.4	4.1	2.8	Chapter I			
	5/10/90	3.4	5.4	2.8	Chapter I	0		
5	8/30/90	3	4.5	3	AL			
	5/6/91	4.2	6	3.6	AL	1.2	AL = 1.2	



Case Study #10		Woodcock-Johnson Test Scores					
Grade	Date	Reading	Math	Written Lang.	Method	Yrly rdg gain	Reg. Av. = .65 Av. gain for method
2	3/2/87	1.7	2	1.8	Unknown		
4	6/1/89	3.4	3	3.2	SpEd		Unknown SpEd = .67
5	9/6/89	3.3	2.6	3.6	Eclectic		
	5/11/90	4.4	3.6	4.2	Eclectic	1.1	Eclectic = 1.1
6	8/31/90	3.6	4.2	3.7	AL		
	5/10/91	4.8	4.1	3.7	AL	1.2	AL = 1.2

## APPENDIX D

### Case Study Attendance Records

#### Raw Data

The raw attendance data is listed days present/days absent/days tardy for each case study for each academic school year. The total number of school days possible for each year is 180 except in kindergarten it is 90. However, Case Study #6 went to kindergarten on a daily basis (180). As Case Studies #3 and #4 skipped sixth grade, their sixth grade notation is "skip". As there was no data for Case Study #8 for his third grade year, no data is listed for that year.

**CASE STUDY ATTENDANCE RECORDS**  
 Days present/days absent  
 Averages given per grade level and per reading instruction

Academic Year	S#1	S#2	S#3	S#4	S#5	S#6	S#7	S#8	S#9	S#10	Av
1982-83	83/7	90	84/6	85/5	90		85/5				
1983-84	160/20	176/4	172/8	166/14	175/5/2	172/8	166/14	59			
1984-85	165/15	175/5	165/15	166/14	172/8	163.5/16.5/1	160/20	169.5/10.5/6	177/3	165/14/1	
1985-86	159.5/20.5	176.5/3.5	158/22	172/8	173/7	173/7	169/11	176/4/4	124/4/52	166.5/13.5/2	
1986-87	150/27/3	179.5/5	158/22	159/21	175.5/4.5	168/12	153/27	179/1/1	175/5	164/16/3	
1987-88	166/14/0	178/2	154/26/19	159/21	172/8	178/2/1	159/21	179/1/1	170/10	165.5/14.5/1	
1988-89	166.5/13.5	176/4	no record	152/28	172/8	172/8/1	163.5/16.5	163/17	175/5	174.5/5.5	
1989-90	160.5/19.5/1	174.5/5.5	170/10	170.5/9.5	174/6	172.5/7.5/3	178/2	169/11	175/5	172.5/7.5	
1990-91	158.5/21.5/2	172.5/7.5	157.5/22.5	158.5/21.5	175.5/4.5						
Total Average	89%	98%	90%	91%	97%	96%	93%	88%	98%	91%	92.55%
During Reg.	90%	99%	90.6%	AL 88%	96%	/	/	/	98%	/	97%
During DI	88%	98%	/	/	/	95%	89%	91%	97%	/	93%
During Eclectic	91%	97%	/	94.7%	97%	96%	91%	/	/	97%	94.7%
During AL	88%	96%	88%	88%	98%	96%	99%	94%	97%	98%	94.2%
	Key: / no data										

### Percentage Data

The percentage attendance data is listed according to case study and grade level. It shows those years that students repeated twice with their respective attendance averages hyphenated. When there was no data, that was listed.

Cumulative averages are also listed. The total attendance average (Tot Av) of each student is listed first. The average attendance rate while receiving only regular education service (R) is listed second. As Case Study #6 was always in special education, there is no data for him in this column. The third average computed was for the rate of attendance during Direct Instruction (DI) for reading. The fourth average was for the rate of attendance during Eclectic (E) instruction for reading. The last average was for the rate of attendance during Accelerated Learning (AL) instruction for reading.

At the bottom of the grid are the total student averages. The total attendance average for all ten case studies was 94%. The total regular intervention attendance



## APPENDIX E

## Washington State Definition of Learning Disabled, 1986

**WAC 392-171-406 Specific learning disability—**  
**Definition.** Specific learning disability is a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language. Such disorder may include problems in visual and auditory perception and integration and may manifest itself in an impaired ability to think, speak or communicate clearly, read with comprehension, write legibly and with meaning, and to accurately perform mathematical calculations, including those involving reading. Spelling shall not stand alone as a qualifying academic achievement area. The presence of a specific learning disability is indicated by intellectual functioning above that specified in this chapter for eligibility as mentally retarded and by a severe discrepancy between the student's intellectual ability and academic achievement in one or more of the following areas:

- (1) Oral expression;
- (2) Listening comprehension;
- (3) Written expression;
- (4) Basic reading skill;
- (5) Reading comprehension;
- (6) Mathematics calculations; and
- (7) Mathematics reasoning;

*Provided,* That such a performance deficit cannot be explained by visual or hearing problems, motor handicaps, mental retardation, behavioral disability, or environmental, cultural, or economic factors.

A specific learning disability includes conditions described as perceptual handicap, minimal brain dysfunction, dyslexia, and developmental aphasia: *Provided,* That the student meets the eligibility criteria set forth in WAC 392-171-411, including documentation of severe discrepancy as required by WAC 392-171-413 and 392-171-418. [Statutory Authority: RCW 28A.13.070(7), 84-14-036 (Order 84-19), § 392-171-406, filed 6/28/84; 80-11-054 (Order 80-31), § 392-171-406, filed 8/19/80. Formerly WAC 392-171-350.]

**WAC 392-171-411 Specific learning disability—**  
**Assessment procedures and eligibility criteria.** Assessment procedures and eligibility standards: All students considered for initial placement in special education as specific learning disabled shall be assessed and determined eligible for special education and related services according to the following:

- (1) A current assessment of sufficient scope to rule out eligibility for any other handicapping condition and to rule out environmental, cultural, or economic factors as an explanation for the specific academic problem;
- (2) A current vision and hearing screening report shall be obtained and shall be of sufficient scope to rule out

vision or hearing acuity as an explanation for the specific academic problem;

(3) A written record of observation of the student's learning behaviors in the regular education program and the relationships of these behaviors to the specific academic problem shall be completed by a member of the assessment team other than the student's regular education teacher; and

(4) Written documentation that the student has an academic achievement problem in the regular education program shall be available. Such documentation shall include, if applicable, previous intervention attempts and the results obtained. Examples of data used for documentation may include:

- (a) Student performance on daily classroom work and/or criterion-referenced tests;
- (b) Summary of past student performance;
- (c) Group test results;
- (d) Teacher observation and judgments; and
- (e) Performance on student learning objectives.

(5) Documentation of the existence of a severe discrepancy between the student's intellectual ability and academic achievement in one or more of the seven areas specified in WAC 392-171-406 shall be recorded. Such documentation shall conform to the requirements of WAC 392-171-413 or 392-171-418, whichever is applicable.

(6) Tests used to assess the student's intellectual ability and academic achievement shall be:

- (a) Current;
- (b) Reliable as demonstrated by a reliability coefficient of .85 or above;
- (c) Normed on representative national samples;
- (d) Selected and administered in accordance with the general requirements of WAC 392-171-351; and
- (e) Individually administered and interpreted by a qualified person (defined in WAC 392-171-351) in accordance with the standardized procedures described in the test manuals. [Statutory Authority: RCW 28A.13.070(7), 84-14-036 (Order 84-19), § 392-171-411, filed 6/28/84; 80-11-054 (Order 80-31), § 392-171-411, filed 8/19/80. Formerly WAC 392-171-355.]

**WAC 392-171-412 Discrepancy tables for determining severe discrepancy under WAC 392-171-413.** The superintendent of public instruction shall develop and publish discrepancy tables for the purpose of determining a severe discrepancy between intellectual ability and academic achievement pursuant to WAC 392-171-413. Such tables shall be developed on the basis of a regressed standard score discrepancy method which shall consider the following variables:

- (1) The reliability coefficient of the intellectual ability test;
- (2) The reliability coefficient of the academic achievement test; and
- (3) An appropriate correlation between the intellectual ability and the academic achievement tests.

The regressed standard score discrepancy method shall be applied at a criterion level of 1.55. [Statutory Authority: RCW 28A.13.070(7), 84-14-036.]

## APPENDIX F

## Testing Instrument

The Woodcock-Johnson Psycho-Educational Battery was the testing instrument. Excerpts that follow are from a Woodcock-Johnson Response Booklet and the Woodcock-Johnson Educational Test Battery Manual (Teaching Resources, Corp. 1977).

## Introduction

The *Woodcock-Johnson Psycho-Educational Battery* is a wide-range comprehensive set of tests for measuring cognitive ability, achievement, and interests. The tests are individually administered, and norms are provided from the preschool to the geriatric level.

Part Two of the *Battery* consists of a set of 10 subtests measuring several aspects of scholastic achievement. Scores from seven of these subtests provide information regarding a subject's skill in reading, mathematics, and written language. The remaining three subtests provide information regarding the subject's knowledge of science, social studies, and humanities.

Part Three of the *Battery* consists of five subtests measuring a subject's level of preference for participating in various scholastic and non-scholastic forms of activity.

The specific directions for administering each subtest are provided page-by-page in the tests. The "General Directions" section of this test book includes suggested procedures for learning to administer the tests and general information regarding test administration and scoring. The "Interpretation" section presents step-by-step instructions for completing the interpretation portions of the *Response Booklet*. The interpretation tables follow the examiner's manual.

A separate publication, *Development and Standardization of the Woodcock-Johnson Psycho-Educational Battery* (Woodcock, 1978), contains detailed information on the research and development underlying the *Battery* and data on its reliability and validity.

## Caution:

1. Tests such as the *Woodcock-Johnson Psycho-Educational Battery* are specialized diagnostic aids that should be administered only by persons properly prepared by training and/or self-study.
2. The interpretation of a subject's performance, and the subsequent use of such information in forming decisions, may have long-term irreversible implications. Such interpretations and decisions should be attempted only by persons who are qualified to perform these functions and sensitive to the conditions that may compromise, and even invalidate, standardized test results.
3. The specific content of test items is confidential information, not to be made public or disclosed to anyone without a professional need-to-know. To do so limits the value of the tests, which depend upon the premise that the content of items is unknown in advance to potential subjects.
4. *These tests are not to be used in any program operating under statutes or regulations that require disclosure of specific test item content and/or correct answers to the public, including parents or the examinee. Any such use is prohibited by the copyright law.*

Introductory, Test Manual

## Response booklet excerpt

☐ Subtest 13  
Letter-Word Identification

Basal Ceiling	5 consecutive correct	5 consecutive failed	
1	O	31	ordinary
2	B	32	knowledge
3	R	33	bounties
4	Z	34	knead
5	G	35	thermostat
6	H	36	moustache
7	U	37	courageous
8	is	38	acrylic
9	go	39	sufficient
10	to	40	significance
11	in	41	therapeutic
12	cog	42	silhouette
13	not	43	municipality
14	get	44	debris
15	had	45	trivialities
16	his	46	pinochle
17	keep	47	debutante
18	must	48	stochastic
19	got	49	tricot
20	part	50	argot
21	light	51	satiate
22	once	52	kopje
23	new	53	enceinte
24	point	54	puisne
25	whole		
26	piece		
27	shoulder		
28	island		
29	whose		
30	announcer		

13 ☐ RAW  
SCORE☐ Subtest 14  
Word Attack

Basal Ceiling	Item 1 5 consecutive failed
A	nat
B	ib
1	tiff
2	hap
3	nan
4	mell
5	jox
6	leck
7	then t
8	chur
9	feap
10	wuss
11	shomble
12	yosh
13	mibgus
14	splaunch
15	saist
16	wroutch
17	knoknk
18	quog
19	lindily
20	whumb
21	phigh
22	hudned
23	mafreatsun
24	cythe
25	coge
26	deponiel

14 ☐ RAW  
SCORE☐ Subtest 15  
Passage Comprehension

Basal Ceiling	5 consecutive correct	5 consecutive failed
A	man	
1	hat	
2	book	
3	box	
4	is	
5	time	
6	books	
7	at	
8	is	
9	cities	
10	his	
11	turtles	
12	ship	
13	shoe	
14	paper	
15	water	
16	round	
17	read	
18	but	
19	alphabet	
20	forests	
21	nomads	
22	capitals	
23	except	
24	fear	
25	though	
26	by	

15 ☐ RAW  
SCORE

## Test Manual excerpt, page 315

## Subtests and Clusters

Subtests. Part Two—Tests of Achievement consists of 10 subtests measuring various aspects of scholastic achievement:

Subtest 13: Letter-Word Identification tests the subject's ability to identify isolated letters and words. It should not be assumed that the subject necessarily knows the meaning of a word correctly identified.

Subtest 14: Word Attack tests the subject's ability to read nonsense words. This ability requires the application of phonic and structural analysis skills.

Subtest 15: Passage Comprehension tests the subject's ability to study a short passage that has a key word missing from that passage. The subject's task is to determine a word that would be appropriate in the context of the passage. This task requires a variety of comprehension and vocabulary skills.



## Word Attack and Passage Comprehension examples, Test Manual

### Sample Items

I want you to read some words that are not real words. Tell me how they sound. Point to "nat."  
How does this word sound?

A. nat  
(nat)

A: Error

If the subject responds incorrectly, say "nat" and have the subject repeat "nat."

Point to "ib" and say:  
How does this word sound?

B. ib  
(ib)

B: Error

If the subject responds incorrectly, say "ib" and have the subject repeat "ib."

DO NOT PRONOUNCE ANY OTHER WORDS DURING THE TEST.

**Ceiling Rule:** Continue testing until *five or more consecutive* items are failed, or until the items up through Item 26 have been administered.

**Starting Point:** Proceed to Item 1 for all subjects.

Word Attack: Sample Items A-B

21

### Sample Item

#### Starting with Sample A

If beginning the test with the Sample Item, point to the subject's side and say: Look at this picture. Then point to the sentence and say: Listen. This says, "The house is bigger than the . . . (pause)." Point to the blank line in the sentence. What word belongs in the blank space?



The house is bigger than the \_\_\_\_\_.

Correct: man, woman, lady, boy, girl, child, daddy, mommy, person

Reread the sentence and explain further if necessary. The subject must understand that a spoken word is to be given for the blank space in the sentence.

Do not read any other items or tell the subject any words during the remainder of this subtest.

Passage Comprehension: Sample Item A

35

## Test Manual excerpts, pages 317-319

### Scores

This section of the manual discusses the full variety of scores available to facilitate interpretation of the subject's test performance. Included among these scores are the familiar grade scores, age scores, and percentile ranks. Part scores and cluster scores are intermediate scores used to go from raw scores to the other scores. Newer types of scores include the extended grade scale, the extended age scale, and the suggested instructional range. The relative performance index is a slight modification of a type of score described previously as the relative mastery score (Woodcock, 1973). All of the above types of scores will be familiar to users who have had experience with scoring the *Woodcock Reading Mastery Tests* (Woodcock, 1973) and the *Goldman-Fristoe-Woodcock Auditory Skills Test Battery* (Goldman, Fristoe, & Woodcock, 1974b). Also included for optional use are two standard score scales, a stanine scale, and a new scale called normal curve equivalents (NCE's).

Most interpretive scores are based on some procedure for comparing the subject's performance to the performance of some well defined group—the norming sample. Normative data for this *Battery* were collected from a stratified random sample balanced in terms of the national distributions of sex, race, occupation, geographic location, and type of community. The norming subjects ranged in age from three to over 80 years and came from more than 40 communities widely distributed throughout the United States. All data in the school-age sample were gathered throughout a one-school-year period extending from April 1976 to March 1977. Adult data were gathered from April 1976 until May 1977. Further details about the norming sample and the procedures used to gather data are described in the separate publication *Development and Standardization of the Woodcock-Johnson Psycho-Educational Battery* (Woodcock, 1978).

It is important for the user to note that all subtests in the *Battery* have a common norm base. In other words, the same group of people provided the normative data for all three parts of the *Battery*.

These are three primary devices for looking at or interpreting the subject's performance on the tests:

- Grade score information
- Percentile rank information
- Relative performance information

Each device tells essentially the same thing but from a slightly different viewpoint. Whereas the Tests of Achievement utilize all three schemes, the Tests of Interest utilize only the percentile rank scheme for interpreting test performance. Types of scores including the primary devices are discussed below in the order in which they appear in the "Summary of Scores" section of the Response Booklet.

**Grade equivalent scores.** A grade score reflects the subject's performance in terms of the grade level in the norming sample at which the average score is the same as the subject's score. In other words, if the average cluster score of students in the fifth month of the second grade is 471, then a subject who scored 471 would receive "2.5" as a grade score.

## Response booklet excerpt

**SUMMARY OF SCORES:** Do these test results provide a fair representation of the subject's present functioning? ☐ Yes ☐ No  
If not, what is the reason for questioning the results? \_\_\_\_\_

Subject / CLUSTER	Raw Score	Part Score from Table A	CLUSTER SCORE	Grade Score	INSTRUCTIONAL RANGE		Age Score	AVERAGE CLUSTER SCORE = Grade = Age	CLUSTER DIFFERENCE SCORE	Percentile Rank at = Grade = Age	Percentile Rank Range	RPI at = Grade = Age	Functioning Level
					Easy	Difficult							
<b>ACHIEVEMENT CLUSTERS</b>													
13. L-W Ident	____ (54) ____												
14. Word Attack	____ (26) ____												
15. Pass Comp	____ (26) ____												
Reading Cluster Score			<u>  a  </u>					<u>  b  </u>	<u>  b-a=c  </u>				
				TABLE B	to	TABLE B	TABLE B	TABLE G OR H	(-OR-)	TABLE J OR P	TABLE I OR P	TABLE W	TABLE W
16. Calculation	____ (42) ____												
17. Appl Probs	____ (49) ____												
Mathematics Cluster Score			<u>  </u>					<u>  </u>	<u>  </u>				
				TABLE C	to	TABLE C	TABLE C	TABLE G OR H	(-OR-)	TABLE J OR Q	TABLE J OR Q	TABLE W	TABLE W
18. Dictation	____ (40) ____												
19. Proofing	____ (29) ____												
Written Lang Cluster Score			<u>  </u>					<u>  </u>	<u>  </u>				
				TABLE D	to	TABLE D	TABLE D	TABLE G OR H	(-OR-)	TABLE K OR R	TABLE K OR R	TABLE W	TABLE W
20. Science	____ (39) ____												
21. Soc Studies	____ (37) ____												
22. Humanities	____ (36) ____												
Knowledge Cluster Score			<u>  </u>					<u>  </u>	<u>  </u>				
				TABLE E	to	TABLE E	TABLE E	TABLE G OR H	(-OR-)	TABLE L OR S	TABLE L OR S	TABLE W	TABLE W
Sum of the four Achievement Cluster Scores				[To be plotted on the Subject Profile]									
13. L-W Ident	____ (54) ____												
17. Appl Probs	____ (49) ____												
18. Dictation	____ (40) ____												
Skills Cluster Score (Preschool)			<u>  </u>					<u>  </u>	<u>  </u>				
				TABLE F	to	TABLE F	TABLE F	TABLE G OR H	(-OR-)	TABLE W OR T	TABLE W OR T	TABLE W	TABLE W
<b>INTEREST LEVEL CLUSTERS</b>													
23. Reading Interest	____ (25) ____												
24. Math Interest	____ (25) ____												
25. Wr Lang Interest	____ (25) ____												
Schol Interest Cluster Score			<u>  </u>					<u>  </u>	<u>  </u>				
								TABLE G OR H	(-OR-)	TABLE N OR U	TABLE N OR U		
26. Physical Interest	____ (35) ____												
27. Social Interest	____ (35) ____												
NonSchol Int Cluster Score			<u>  </u>					<u>  </u>	<u>  </u>				
								TABLE G OR H	(-OR-)	TABLE O OR V	TABLE O OR V		
Sum of the two Interest Cluster Scores				[To be plotted on the Subject Profile]									

**RESULTS FROM RELATED TESTS:**

Test	Date of Testing	Results
_____	_____	_____
_____	_____	_____
_____	_____	_____

**RECOMMENDATIONS FOR FURTHER TESTING AND/OR PROGRAM PLANNING:**

## APPENDIX G

## Specific Summary of Direct Instruction

The following excerpts are taken from Englemann and Hanner, 1983, pages 4-7 and 9-14.

# Overview of Decoding and Comprehension Emphases

Each lesson in *Reading Mastery III* has two distinct objectives: one is decoding, the other is comprehension. The word-attack presentation deals not only with decoding skills, but also with developing understanding of key words. Similarly, the main story and the comprehension passage are not simply vehicles for comprehension; important decoding objectives are also met through these activities.

The following outline summarizes the activities involved in the development of decoding rate-accuracy and the development of various comprehension skills. The outline specifies the part of the lesson or the material that develops each subskill.

## I. DECODING EMPHASIS

### A. Word-attack exercises

1. New hard words are modeled by the teacher and then decoded by the students.
2. Word families, which are initially grouped together in columns, are read by the students; later, words from the family are dispersed across word lists.
3. New sound combinations (oi, tion, sion, oa) are first modeled by the teacher, then read by the students, then read in various words that are grouped together, and finally read in words dispersed throughout the word lists.
4. Decodable words (those that have been presented earlier or those that should be decodable by virtue of the students' skills) are dispersed in word lists.

### B. Main story reading activities

1. The students take turns reading two or three sentences for each turn.
2. The teacher models the first part of the story to demonstrate rate, inflection, and how the students should respond to story content.
3. Decoding corrections are provided immediately—the teacher identifies the missed word and the student rereads the sentence in which the word appears.

Note: Procedures 1 and 3 also apply to the comprehension passage reading.

### C. Fifth-lesson checkouts

1. Students individually read a 100-word passage selected from the main story of the preceding lesson.
2. The students earn points for reading according to a specified rate-accuracy criterion.

## II. COMPREHENSION EMPHASIS

### A. Word-attack. Critical vocabulary (idioms, phrases, and individual words that will appear in stories or comprehension passages) is pretaught.

1. The teacher tells the meaning of the word or how to use it.
2. The teacher tests the students' ability to use the newly-presented word.

### B. Comprehension-passage reading: preteaching information

1. As the students read the passage, the teacher presents specified comprehension tasks.
2. The students respond orally.

**C. Main story reading activities**

1. As the students read the story, the teacher presents specified comprehension tasks. The students respond orally.
2. The tasks require recall of information, application of rules, inferences based on specific facts, and various perspectives.

**D. Written workbook applications**

1. The students independently write answers to workbook items.
  - a. Some items relate to the main story that the group read.
  - b. If the lesson contains a comprehension passage, some items relate to the information presented in that passage.
  - c. Some items relate to skills (such as skills in handling deductions).
  - d. Some items review information from earlier main stories or comprehension passages.
2. The workbook activities shape independent work habits.
  - a. In lessons 1–15, boxes next to the items remind the students to work every item, and not to skip some items.
  - b. Symbols in the presentation book signal oral comprehension tasks that will appear in the workbook. These symbols remind the teacher to make sure that the students are firm on their understanding of the tasks.

**E. Daily workcheck**

1. Workbook exercises are checked, either by the teacher or through a group workcheck.
- ② The students receive same-day feedback on their workbook performance.

**F. Tenth-lesson fact games**

1. The students play a game in which they earn points for correct responses to comprehension items.
2. Comprehension items cover key concepts and facts from earlier lessons. The items are particularly important because they will recur in later lessons.

## THE DECODING EMPHASIS

The decoding emphasis involves a cycle that introduces new decoding words and word families, presents these words in different story contexts, and provides practice in meeting oral reading rate-accuracy criteria. Both the decoding vocabulary and the various decoding-practice activities are coordinated from word-attack presentations to group story readings and finally to individual reading checkouts.

### THE CYCLE FOR DEVELOPING DECODING SKILLS

The cycle for introducing a decoding word in *Reading Mastery III* usually begins with the word appearing on two or three word-attack lists. Then the word appears in reading selections at least ten times during the course of the program. This cumulative vocabulary development ensures that students receive practice in reading words in sentence contexts after these words have been presented in isolation.

### WORD-ATTACK PRESENTATION

The first activity in regular and checkout lessons is the word-attack presentation during which the students read 15 to 35 words aloud.

- For any word that is phonetically regular, the teacher asks, "What word?" The group responds.
- Words that would probably be difficult to read are first modeled by the teacher, then spelled by the students. For example: "The first word is *actually*. What word?" (Actually.) "Spell *actually*." (A-c-t-u-a-l-l-y.)
- To show the students structural or phonemic similarities of different word families, the teacher presents groups of words that have common features. On the next page are the word-attack words from lesson 42. Note that the words in column 2 make the soft-c sound.

## LESSON 42

### A

1	2	3
actually	space	replied
cabbage	bounce	decision
maggot	peace	instead
together	city	kilometers
	race	whirl
4	5	6
regular	worried	managed
swirl	important	remind
darling	expression	young
repeated	whole	youngster
neither	couple	reminds
7	8	
crawl	Vocabulary words	
wiggle	1. sleep soundly	
crawled	2. prove	
wiggled	3. make a decision	

170 Lesson 42 Textbook

- For words that may not be familiar to the students, the teacher gives an explanation of the meaning after the students identify these words.

### MAIN STORY DECODING

Following the word-attack activities, the group reads the main story aloud with the teacher calling on individual students to take turns reading two or three sentences. Every main story has an error limit based on one-and-a-half to two errors per 100 words in the story. If the group exceeds the error limit, the students must reread the main story until they read within the specified error limit.

The main story contains as many as 25 of the words presented within the last three word-attack lessons. The stories, therefore, provide an immediate word-recognition function. The error limit for the story helps the students develop effective strategies for learning new words: The students quickly learn that words appearing in the word attack will appear in the main story. They learn that if they are to read the story within the error limit, they must learn these words.

### INDIVIDUAL READING CHECKOUTS

Every fifth lesson (plus lesson 7) is a checkout lesson. In addition to doing word-attack exercises and reading a short selection in these lessons, the students individually read a 100-word passage to another person. The purpose of the checkout is to ensure that the students are progressing acceptably in decoding rate and accuracy. The passage that they read for the checkout is taken from the preceding lesson. To pass the checkout, the student reads the passage in less than a minute and makes no more than two errors.

## THE COMPREHENSION EMPHASIS

As vocabulary and decoding skills are being developed through the various lesson activities, comprehension skills are also being developed. The cycle for comprehension skill development involves (a) word-attack activities, (b) comprehension passage reading, (c) main story reading, (d) written workbook items, and (e) fact games.

### THE CYCLE FOR DEVELOPING SPECIFIC COMPREHENSION SKILLS

*Reading Mastery III* deals with general comprehension skills and specific comprehension skills. General skills are those that are typically taught in most reading programs; they include cause and effect, literal meaning, inferential meaning, main idea, and sequencing of events. These skills are general because they do not specify what is taught. Given that the students should draw inferences when working on cause and effect, the program must present content that provides practice in the skill. Some procedures must also be introduced to show how cause and effect works. The specific comprehension skills taught in *Reading Mastery III* involve the procedures that show how the general comprehension skills work.

Here is a summary of the cycle for expanding and developing specific comprehension skills.

1. A fact (or a rule or a perspective or a meaning) is introduced in a comprehension passage (or a word-attack presentation).
2. Within two lessons of the introduction (though often in the same lesson), the fact is used in the main story.
3. A variation of the fact appears as a worksheet item.
4. Usually the item is reviewed in at least eight subsequent lessons.
5. Some form of the item is usually repeated in at least four main-story contexts.
6. Facts that are particularly important or difficult to learn appear in the fact games. This game format provides the students with massed practice on a lot of information.
7. The final step is the integration of new facts with those taught previously. The combinations of different facts provide for increasingly complex applications and review.

### AN ILLUSTRATION OF COMPREHENSION SKILL DEVELOPMENT

The diagram on the next page, shows how two different facts are processed through the cycle described above. Note that each fact becomes a rule and serves as a premise for drawing conclusions or inferences.

First, the fact is introduced—usually in a comprehension passage. The students repeat the fact and answer questions that are implied by the fact. For example, a comprehension passage introduces this fact: *Insects have six legs*. The students repeat the fact, and then answer questions, such as, "How many legs does an insect have?"

Next, the fact is used as a rule or a premise for drawing conclusions. The students are given information that permits them to draw a conclusion by using a specific fact. For example, "A water strider is an insect. So what else do you know about a water strider?" To answer the question, the students refer to the fact about insects: *Insects have six legs*. If a water strider is an insect, then the water strider must have six legs.

Then, in later lessons, the fact is used in recall tasks. A story about fleas mentions that fleas are insects and says, "You know how many legs an insect has." The teacher asks the students, "How many legs is that?" This step in the cycle ensures that the students recall the facts and understand that *facts are always used in the program after they are introduced*.

Next, inferential questions involving the fact or rule are asked in different stories. For example, the story may mention that a flea jumped with all its legs. The teacher asks, "How many legs did it jump with?" (Six.) "How do you know it has six legs?" (Because it's an insect.)

The final step in the cycle involves the integration of various facts that have been taught. The fact about insects will be integrated with other facts—about the number of legs that spiders have, about the other characteristics of insects, about environmental conditions that affect insects, and about speed. (See the diagram that shows the cycle for developing comprehension skills.) Usually, important facts (such as, "When something starts moving in one direction, there is a push in the opposite direction") are integrated in ten or more contexts. For example, the fact about "a push in the opposite direction" is applied to canoes, a make-believe toad that inflates with air and then propels itself by expelling the air, jet engines, situations in which somebody tries to jump from a boat to a dock or tries to jump from a block of ice, the recoil of a gun, jumping on a scale, and the movement of balloons that are inflated and released.

### GENERAL COMPREHENSION SKILLS

The comprehension skills that are traditionally presented in most developmental reading series stress general skills such as literal comprehension, main idea, fact versus opinion, context clues, and sequencing of events. *Reading Mastery III* is organized so that these skills are taught in a cumulative manner, which means that a particular skill is practiced not merely as a part of a few lessons, but is practiced repeatedly as part of many lessons. This cumulative practice ensures that the students work with the various skills in a variety of story and information contexts.

The chart that follows summarizes the comparison skills emphasized in each of the larger story series in *Reading Mastery III*. (Each story series listed continues

for at least three lessons). The lesson numbers for each series are indicated on the chart. If the series strongly emphasizes a particular skill, the skill is marked with an ✓ on the chart. If the emphasis is not as strong, it is marked with a dot.

As the chart shows, literal comprehension, supporting evidence, cause and effect, and information recall activities are part of each story series. In addition to providing practice in these four categories of comprehension skills, each story series has at least one unique focus. For example, the series about Herman the Fly (a fly who gets on a jet plane and travels around the world) presents strong comprehension emphasis on sequencing, context clues, viewpoint, supporting evidence, interpretation of feelings, map skills, reality versus fantasy, and information recall.

	13-17 (Jokey)	23-30 (Goat)	32-43 (Nancy)	46-59 (Herman)	60-63 (Word bank)	64-76 (Linda & Kathy)	77-81 (Word bank)	83-85 (Story of Troy)	86-95 (Bertha & Bonnie)	99-103 (Cave people)	104-106 (Horses)	109-124 (Andrew)	127-140 (Eric & Tom)
Literal Comprehension	•	•	•	•	•	•	•	•	•	•	•	•	•
Main idea	✓	✓	✓	•	•	✓	•	•	•			✓	•
Sequencing	•	•	•	✓		•	•	•		✓	✓	•	✓
Cause and effect	✓	✓	•	•	✓	•	✓	✓	•	✓	•	•	•
Fact vs. opinion	•	•				•	✓	•	•		•	•	•
Context clues	✓	•	✓	✓		•	✓		✓	•		✓	•
Viewpoint	✓	•	✓	✓	•	•	✓	✓	•	✓		✓	✓
Supporting evidence (relevant details)	✓	•	✓	✓	•	•	✓	•	✓		✓	✓	•
Interpretation of feelings	✓	•	✓	✓	•	✓	•	•		✓		✓	✓
Map skills		✓		✓	•			•					✓
Reality vs. fantasy	✓	✓	✓	✓	✓		✓	✓				✓	✓
Information recall	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



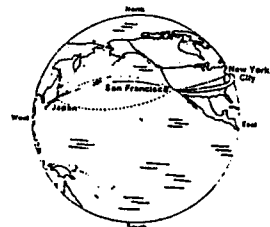
## SAMPLE LESSON

The following sample is part of a lesson in the Herman series. Each comprehension task specified in the

presentation script and the workbook is categorized according to its specific skill emphasis. Note that comprehension is taught using a very carefully sequenced questioning strategy.

### B More about the Globe

In today's story you will read about a trip from New York City to San Francisco and then to Japan. ④ The map on the next page shows that trip.



Touch New York City and go to San Francisco. ④ In which direction do you go? ④ Now go from San Francisco to Japan. ④ In which direction do you go? ④ Which is farther, the trip from New York City to San Francisco or the trip from San Francisco to Japan? ④

Your teacher will show you a globe of the world. Find New York City on that globe. Then go west from New York City to San Francisco. Then go west from San Francisco to Japan. ④

### C Herman Heads for Japan ④

The jumbo jet landed at Kennedy Airport five hours after it took off from San Francisco. ④ The passengers got off the plane, and the crew got off the plane. Workers came and sprayed the inside of the plane with insect spray. ④ After the air cleared, there were six dead flies and one dead ant in the plane. ④ But there was still one living fly. That fly had crawled inside one of the ovens. ④ The oven had cooled some, but it was nice and warm.

#### GROUP READING

##### EXERCISE 5 Reading: comprehension

- Everybody, find part B in your textbook. Wait.
- Call on individual students to read two or three sentences, starting with the title. Present the tasks specified for the circled letters.

##### Comprehension tasks

- Everybody, where does the trip start? Signal, New York City.
- Where does it go next? Signal, San Francisco.
- Where does it go next? Signal, Japan.
- Repeat ④ until firm.
- Everybody, do it. Check.
- Everybody, what's the answer? Signal, West.
- Everybody, do it. Check.
- Everybody, what's the answer? Signal, West.
- Everybody, what's the answer? Signal, West.
- Everybody, what's the answer? Signal, The trip from San Francisco to Japan.
- Show a globe. Mark the trip on the globe with felt pen or with strips of tape. Have the students trace the trip and tell where they are going and in which direction they are going.

##### Comprehension tasks

- Call on a student. What is going to happen in this story? Idea: Herman's going to Japan.
- Everybody, in what city did the plane land? Signal, New York City.
- How long did the trip take? Signal, Five hours.
- How long did the trip going from New York to San Francisco take? Signal, Six hours.
- Call on a student. Why did it take less time going back to New York? Idea: Because the plane was flying in the same direction as the wind.
- Call on a student. What does insect spray do? Idea: Kills insects.
- Call on a student. Do you think Herman is dead now? Response: Student preference.
- Call on a student. Wouldn't he get burned up inside the oven? Idea: Only if the oven was on.

sequencing

map skills

main idea

supporting evidence

literal

information recall

cause and effect

supporting evidence

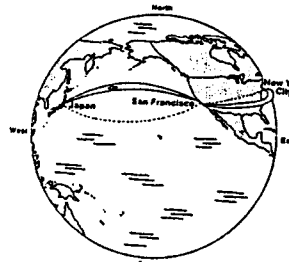
fact vs. opinion

cause and effect

By that evening the oven was cool, and Herman crawled out. Passengers were coming into the plane. ④ ④ ④

Some of the passengers were going to San Francisco. But some of them were going a lot farther. They were on their way to Japan. ④ The jumbo jet was going to fly to San Francisco, and then it was going to continue to Japan. ④ After leaving San Francisco, the jet was going to cross a great ocean, called the Pacific Ocean. ④ The trip from New York City to San Francisco is 4 thousand kilometers. After leaving San Francisco, a plane must fly west for another 7 thousand kilometers to get to Japan. ④

Look at the map. It shows the world. Touch New York City on the map, and follow the jet's trip to San Francisco and then on to Japan. ④ In which direction did the plane go? ④



\* After the plane left San Francisco, the passengers napped and talked and ate. While they did that, Herman met an enemy. ④ Herman was buzzing around near one of the coat closets in the jumbo jet. It was dark inside the coat closets, but some smells caught Herman's attention, so Herman buzzed inside one of the closets. ④ He buzzed up into one of the corners. And then he kept trying to fly, but his legs were stuck to something. ④ He buzzed his wings harder and harder. But he couldn't pull himself free. Once more, he buzzed. Time to rest. ④

- Everybody, where was the plane going after it went to San Francisco? Signal, Japan.
- That's a long, long trip.
- Everybody, where was it going to stop first? Signal, San Francisco.
- Then where was it going to go? Signal, Japan.
- About how far is it from New York City to San Francisco? Signal, 4000 kilometers.
- It's a lot farther to Japan.
- Everybody, what's the name of the ocean? Signal, Pacific Ocean.
- Everybody, how far is it from San Francisco to Japan? Signal, 7000 kilometers.
- Everybody, first go from New York to San Francisco and then stop. Check.
- Now go from San Francisco to Japan. Check.
- What's the name of the ocean you go over after leaving San Francisco? Signal, The Pacific Ocean.
- Everybody, what's the answer? Signal, West.
- What kind of enemies does a fly have? Call on individual students. Responses: People, animals.
- Call on a student. What does it mean, The smells caught Herman's attention? Idea: Herman noticed the smells.
- Call on a student. What do you think that something was? Response: Anything that could be sticky, for example, bubble gum.
- Call on a student. Why does he have to rest? Idea: Because he was tired from trying to pull himself free.

sequencing

information recall

literal

literal

map skills

map skills

information recall

map skills

interpretation of feelings

information recall

context clues

interpretation of feelings

- b. Finish the sentence. Then the plane left for \_\_\_\_\_ *sequencing*
- c. In what direction did the plane fly? \_\_\_\_\_ *map skills*
4. How far is it from New York City to San Francisco? \_\_\_\_\_ *literal*

5. How far is it from San Francisco to Japan? \_\_\_\_\_ *literal*

6. What ocean do you cross to get from San Francisco to Japan? \_\_\_\_\_ *literal*

7. What did Herman get stuck-in? \_\_\_\_\_ *literal*

8. Cross out Herman's enemy. \_\_\_\_\_ *supporting evidence*



#### Skill items

9. Here's a rule: Every worker cleaned the plane.

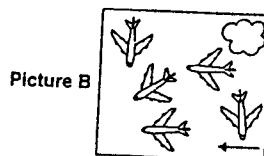
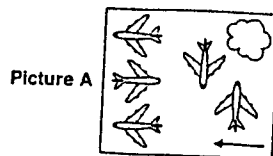
a. Joe was a worker. So what else do you know about Joe? \_\_\_\_\_ *supporting evidence*

b. Helen was a worker. So what else do you know about Helen? \_\_\_\_\_ *supporting evidence*

c. Stella was a worker. So what else do you know about Stella? \_\_\_\_\_ *supporting evidence*

#### Review items

10. a. In each picture below, draw a circle around every plane that will go the fastest.
- b. Draw an arrow on the cloud in each picture to show which way it is moving.



Overview of Decoding and Comprehension Emphases 13

11. Remember to write the words **kilometers per hour**.

a. How fast can a pointer run? \_\_\_\_\_

b. How fast can a fast man run? \_\_\_\_\_

c. How fast do racing cars go? \_\_\_\_\_

d. How fast do jets fly? \_\_\_\_\_

12. Look at the map.

a. Write north, south, east, and west in the right boxes.

b. Draw an arrow on the cloud to show which way the cloud will move.

c. What's the name of the wind that will move

the cloud? \_\_\_\_\_



13. Finish the rule. When something moves in one direction, \_\_\_\_\_

14. a. Which grow up faster, mice or dogs? \_\_\_\_\_

b. Which grow up faster, boys or girls? \_\_\_\_\_

15. a. Finish the sentence. If an ant weighed as much as a beagle, the ant could carry an object as heavy as \_\_\_\_\_ *viewpoint*

b. How many ants would it take to weigh as much as a peanut? \_\_\_\_\_ *information recall*

16. Look at the picture.

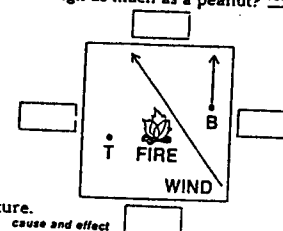
a. Write north, south, east, and west in the right boxes.

b. An arrow goes from the B. Which direction is that

arrow going? \_\_\_\_\_

c. Make an arrow that goes west from the T.

d. Draw the smoke in the picture.



17. What do a mole's legs look like? \_\_\_\_\_ *cause and effect*

14 Overview of Decoding and Comprehension Emphases

## APPENDIX H

## Stevenson Language Skills Program

The following excerpts are from The Stevenson Language Skills Program, Teacher/Student Manual, (Stevenson, 1978).

This book is the beginning of the Stevenson Language Skills Program. It is a manual for people who wish to teach others to read and write. The program is designed to develop the basic language skills of a wide range of students including those who may have a variety of problems. There are student reading books and workbooks coordinated to this manual for classroom use. The material from the Beginning and Basic levels of the program, when used successively, will bring almost any student to that special point where the confusing relationship of arbitrary sounds and shapes begins to assume order and the reading and writing process begins to become automatic.

The program takes unusual approaches. It superficially resembles some traditional phonics teaching methods, but unlike them, does not stress rote memorization of the sounds. Learning by association acts as the central force as the Stevenson method incorporates various procedures in a unique structure to teach a number of different language skills. The skills in each lesson include reading, vocabulary building, penmanship, spelling, grammar, and typing. These coordinated areas give the student the reinforcement he needs while he overcomes his problems.

## CONTENT OF THIS BOOK

This book contains two introductory segments followed by the lessons in the main body of the book. The appendices in the last section provide instruments to help the teacher manage the student's progress through the lesson work. The first introductory segment is a user's guide, intended to give the teacher, aide, or volunteer a basic sense of how to proceed and what to expect. If the user is pressed for time, he can move directly to Lesson 1 after finishing this introductory segment and go to work. The second introductory section is more theoretical. It describes the program's approach to teaching reading and writing and discusses it in terms of the various problems that students exhibit when trying to learn our language. Because the complex neurological processes involved in learning a language are not precisely understood, we have not attempted to provide an exact model of how the program works. Part 2, however, will reveal the reasoning behind the design of the program. We believe that this section will not only help the teacher understand the program but also help him teach more effectively.

Each lesson focuses on one or more units of language called "processing integrals" which are letters, letter combinations, or consonant-vowel patterns. These are more fully described in Part 2. The units are numbered and their sequence is specifically selected to minimize the beginner's confusion. The sequence, also, is designed to give the student the experience of reading as soon as possible. He is able to read ten words after learning only ten letters and can read two hundred words before he has had to learn the whole alphabet. This accomplishment is usually achieved in the first two months of work.

In each lesson the teacher's directives are presented first. These directives are required reading for the teacher. They give instruction in six areas: reading, vocabulary building, printing, spelling, grammar and typing. These six segments are designed to complement each other and give the student several different approaches to the same piece of information. This procedure is particularly important to the disabled reader. The typing segment can be very helpful, but if no typewriter is available students will still be able to proceed successfully without doing the activities in this section.

The student's reading stories, sentences, and word lists follow the teacher's directives. They are presented in large print, with typeface selected to ease the burdens of the beginning reader. At the bottom of the student pages is a list of Feed Words. These are commonly used words that the student has not yet been taught, but which are necessary for constructing sentences. The teacher should speak these words for the student as he is learning to read. The teacher must not insist that these words be memorized by rote. The more facile student will learn them with little effort after repeated exposure to them in the text. Other students will learn them later, phonetically, when they have developed their decoding skills.

The appendices that follow the lesson work are useful for a variety of purposes. In general they provide tools to help the teacher manage the student's progress through the lesson work.

Appendices A and B are illustrations of the Stevenson Alphabet Sequence. (Appendix A illustrates the lower case letters and B both the upper and lower cases.) The Stevenson Sequence differs from the traditional a, b, c progression in order to minimize the difficulties of the student with perceptual problems and expedite the development of every student's decoding and encoding abilities. Both the student and the teacher will find these appendices a convenient reference during a variety of activities. They have also been included at the end of the Beginning I Student Reading Books. Appendix C is the list of Processing Integrals preceded by a description of how the program covers them. This will become a basic tool for measuring the student's accomplishment, gauging his rate of progress, and designing plans for future work. Appendix D includes general and specific tests for word attack skill. These are not standardized tests (which are discussed later) and should not be used to compare the work of students in this program with students in other programs. Standardized tests will not yield any consistent, useful results until the student has finished the Basic level. The tests in Appendix D, however, will help the teacher to identify the nature of a student's weakness or gauge how well he has mastered a certain integral or procedure. The teacher will use these tests to help him understand where to concentrate his efforts within the Stevenson Program. Appendix E is an optional, organizational device for the instructor. The page offers a simple form for teachers who wish to keep a regular record of objectives.

## SEVEN SPECIAL STEPS

The organizational structure of the SEVEN SPECIAL STEPS gives the student a specific procedure to follow each time he decodes a word. The teacher guides the student through the SEVEN SPECIAL STEPS until he can manage the procedure independently. In the first 22 lessons the student will decode the Consonant-Vowel-Vowel-Consonant word construction. He later learns to determine the sounds of the other vowel combinations but always processes that vowel pattern before proceeding to the first letter or letters in the word.

1. The student looks at the construction of the whole word for the clues that will help him decide how he will process the vowel pattern.
2. The teacher points with a pencil (the finger is too large) to the first vowel of the CVVC word while the student counts the vowels, "First in line, second in line." The pupil proceeds to cross out the second vowel in these CVVC words.\*
3. The teacher asks the student to repeat aloud that first vowel sound, loud and long (long enough to resonate in the mind while the student takes the next step).
4. The teacher asks the student to repeat the first letter sound.
5. The teacher asks the student to blend the first letter sound with the vowel sound that has been resonating in the student's mind. Example: go in the word goat.
6. The teacher asks the student to repeat aloud step 3 if the response is wrong; then has him continue with step 4. Steps 3 and 4 are repeated until there is success. If there is no progress after several attempts, the teacher repeats aloud steps 3 and 4 for the student. The pupil then repeats the corrected sound.
7. The student finally adds the last consonant sound and repeats the whole word aloud.

SAMPLE  
LESSON

## LESSON 21

The Letter w

Integral 30

**READING:** Tell your students that they have another new letter that is a double u. Double means two. This new letter has two y's stuck together, so we give it the name of Double y. This explanation is the beginning of using letter names. Be sure you make the point clear that double y is this letter's name, not its sound. This guy speaks the sound like the first part of the word walrus. The letter on the y page forms the mouth of Wally the walrus. Have your child read the SILLY SENTENCES and SILLY STORIES.

You should be playing THE GAME with each student. If you have a group, you need to be playing THE GROUP GAME with them.

**VOCABULARY BUILDING:** Review. Also, explain that there are two words that sound like wait, but the spellings and meanings are different (wait, weight). The students will be using the word which is an action they can do. The other one is for later.

Review the definition sentences the students have been chanting. Add To wait means to cry. Explain that this word is wait not whale. When you say whale you make the beginning sound blow out of your mouth. A whale can blow out a spout of water. You should blow out a spout of air as you say whale. Also, introduce the homonyms weak and week. Put the word weekweak on the board. State that you have written seven y's to represent each day in the week. The days are all the same. Print the word week on the board to compare.

**PRINTING:** The w will be two rounded y's joined together rather than the two isolated forms. To make the w, the student draws the letter y first by starting his pencil at the dotted line and pointing it to the floor. He drags across the floor a short space. Then turns to go straight up to the dotted line. Next, the pencil must trace back on the line just completed until it hits the floor. Now he drags on the floor again just as he did for the first y; then turns to go straight to the dotted line and traces back on the line just completed.

When the child starts cursive (connected) writing, he will find that the shape he has learned is very similar to what is expected of him in the new form.

**SPELLING:** wait week weak week

**TYPING:**

w w w w w  
wait wait wait wait  
week week week week  
as as as as as

## SILLY SENTENCES

wa wait wait  
we weed week  
weep week

1. Can Gail wait to meet Dean?
  2. Joan can wait a week for Jean.
  3. Can a goat go near a weed?
  4. Gail can feed a seed to a deer.
  5. A weed and a seed are in the pail.
  6. Is a deer weak?
  7. He can soak the weed in a pail.
  8. Dean can wait in the jeep.
  9. He can wait near the road.
  10. Can Gail wait in the boat?
- 
1. He is so weak he cannot leap.
  2. The toad does not wait for the goat.
  3. Gail can keep a weed in the pail.
  4. Dean is so weak he cannot moan on the road.
  5. Can Gail hear a weed leap?
  6. In a week Jean can weed the road.
  7. Can he lean on a seed?
  8. Is the seal weak?
  9. In a week I can read.
  10. Can he weed the road?

FEED WORDS: can to eat and is to the  
are cannot does not as

Letter Pattern =  
Lesson 21  
Integral 30

Wally the  
walrus

w = double u



## SILLY STORIES

Wait

Wait for the goat. Wait for the deer. Wait for the seed. Wait for the bead. Can Jean wait for a seed? Can Dean wait for a bead, or a goat, or a deer? He can wait for a deer and a goat. No, he does not wait for a bead, and Jean does not wait for a bead.

## Wait a Week or So

The goat can wait for the toad. The deer can wait for the meal. Jean does wait for a sail in the boat. Does Dean wait for the jeep? The goat, the deer, the toad, Jean and Dean wait a week or so.

## Wait, Wait, Wait

Does a seal wait in jail? Does hail wait in a pail? Does a goat wait to roar? No, I feel that a seal does not wait in jail. I feel hail does not wait in a pail, and a goat does not wait to roar.

FEED WORDS: for the can or does  
not and that is to

Letter Pattern =  
Lesson 21  
Integral 30

## APPENDIX I

### Specific Summary of Eclectic Instruction

During the academic years 1988-89 and 1989-90, the target school special education program used Eclectic methodology in teaching reading. The goals of the Eclectic reading program were to develop thinking abilities through improved reading skills and democratic attitudes through value clarification themes and improved self-concept. Each quarter specific objectives and materials were emphasized.

#### First Quarter

Unit focus: Achievement is the great equalizer.

Materials: Barnell-Loft's Interactive Reading Program

Methodology: Directed Interactive Reading-Language Experience (DIR-LE)

Motivational movie: "Stand and Deliver"

Value: Self-respect

Skill emphasis: Reading for communication with author/interactive nature of reading

#### Second Quarter

Unit focus: If there is a will, there is a way.

Materials: Passages' Program, The Vandal

Methodology: Direct Reading & Thinking Activities (DRTA) as found in Passages Program & DIR-LE

Motivational movie: "The Boy Who Could Fly"

Value: Perseverance

Skill emphasis: Reading for cognitive development

### Third Quarter

Unit focus: Nothing can stop us.

Materials: History textbook and miscellaneous plays

Methodology: DRTA, DIR-LE, TELSQA and Cooperative Learning

Motivational movie: "Willow"

Value: Cooperation

Skill emphasis: Reading for information

### Fourth Quarter

Unit focus: We make our own choices.

Materials: The Outsiders, student made story and video equipment

Methodology: DIR-LE & Language Experience

Motivational movie: "The Outsiders"

Value: Responsibility

Skill emphasis: Reading for pleasure and self-awareness

### An Explanation of the Methods

1. DIR-LE consists of introductory reading discussions and follow-up that are integrated with language arts activities.
2. DRTA emphasizes predicting skills to develop associational, relational and evaluational thinking skills.
3. TELSQA requires title identification, examination of paragraphs, looking for difficult words, self-questioning

after reading each respective paragraph, and answering questions at the end of each chapter.

4. Language Experience involves student generation of the material to be read.

5. Cooperative Learning involves students working in small groups in high-order thinking activities.

The evaluation system used for the Eclectic reading program follows.

EVALUATORY SYSTEM FOR LASER READING CURRICULUM

FORMULATION AND CLARIFICATION OF VALUES	SELECTION & CONSTRUCTION OF DEVICES FOR GETTING EVIDENCE	APPLICATION OF EVALUATIVE CRITERIA	INFORMATION ON FACTORS INFLUENCING GOAL ATTAINMENT	IMPLICATIONS FOR PROGRAM IMPROVEMENT
1. Democratic Citizenship	Following classroom behavior code, exhibiting nondisruptive behavior	Number of times initials on board for not following classroom code & school staff report	Baseline before program initiation and psychological assessment	Achievement of classroom management system assessment
2. Increased thinking abilities	Classroom discussion participation, classroom performance on exercises and activities	Quality of answers, demonstrated improved ability to answer questions demanding thinking skills	Pre-tests on similar or same skills, handicapping condition	Assessment of teaching techniques and methods
3. Increased reading skills	Informal reading inventory, oral reading, pre & post tests in content area and standardized tests	Amount of improvement from pre-tests, teacher report, and classroom participation	Pre-testing, skematic background, behavior and diagnostic assessment	Assessment of reading instructional materials and methodologies
4. Improved self-concept	Informal and formal classroom discussion, school deportment	Teacher report of exhibitions of self-confidence, sociability, friendships formed, inclusion & acceptance by group, and participation in school activities, parent report and supportive services report	Personal history and psychological assessment, environment and access to activities and peers	Assessment of supportive system teacher methodology and accessibility of social outlets

On the following pages, 274-287, are excerpts from the materials used for the Eclectic program instruction.

Excerpts from the Teachers' Edition of Let's Think Twice  
Interactive Reading Program, Barnell Loft, 1990.



# LET'S THINK TWICE

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## THE DIR-LE EMPHASIS

The Directed Interactive Reading-Language Experience has a design and emphasis somewhat different from Dr. Emmett Betts's widely used Directed Reading Activity (DRA) or Dr. Russell Stauffer's extremely popular Directed Reading-Thinking Activity (DR-TA).

The DIR-LE is a set of specific steps that the teacher follows in developing an interactive reading lesson adaptable to any reading selection. A DIR-LE consists of introductory, guided-reading, and follow-up phases (all detailed below) providing four kinds of interaction while integrating the language arts.

**The object of the *Barnell Loft Interactive Reading Program's* DIR-LE is to —**

- generate more pupil-text, pupil-teacher, pupil-pupil, and language interaction than the DRA or the DR-TA
- offer a more flexible approach to direct reading instruction than either the DRA or the DR-TA
- provide more balance in terms of teacher and pupil roles (less teacher-controlled than the DRA and having a more prominent teacher role than the DR-TA)
- place more accent on language interaction than the DRA or the DR-TA
- introduce key vocabulary and key concepts at the outset (similar to the DRA but unlike the DR-TA)
- assist pupils in setting purposes for reading (DR-TA) rather than set purposes for pupils' reading (DRA)
- stress teacher questioning (DRA) as well as self-questioning (DR-TA)
- put greater emphasis on identifying question-answer relationships than either the DRA or the DR-TA
- promote summarizing and visualizing more than either the DRA or the DR-TA
- assist pupils in relating illustrations to the text more than the DRA or the DR-TA
- stress story structure more than the DRA or the DR-TA
- involve both pupils and teachers in evaluating their own work more than the DRA or the DR-TA.

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## Bibliography — The DIR-LE Emphasis

- Aulls, M. *Developmental and Remedial Reading in the Middle Grades*. Boston: Allyn, 1978.
- Betts, E. A. *Foundations of Reading Instruction*. New York: American, 1946.
- Harris, A. J., and E. R. Sipay. *How to Increase Reading Ability*. White Plains, N.Y.: Longman, 1985.
- Stauffer, R. G. *Directing Reading Maturity as a Cognitive Process*. New York: Harper, 1969.
- Tierney, R. J. *Reading Strategies and Practices: A Guide for Improving Instruction*. Boston: Allyn, 1985.

### GENERAL OBJECTIVES

Through the *Interactive Reading Program* and related activities, pupils will—

- derive increased pleasure from the reading experience
- increase their desire to read
- increase their understanding of life, human nature, and the world about them
- recall significant details from a story's text (literal comprehension)
- draw valid conclusions and inferences from a story's text (interpretive comprehension)
- make and support valid judgments about the characters, content, themes, and overall quality of a story (critical comprehension)
- apply their understanding of a story to new or altered situations related to a story (creative comprehension)
- read orally with increased expression and understanding, with appropriate inflection, pausing, emphasis, and clarity
- identify major elements of a story (setting, problem, etc.)
- generate and support reasonable predictions regarding a story
- describe accurately story scenes and characters not depicted in illustrations
- generate text-related questions that will aid their own comprehension
- clear up comprehension problems through strategies such as lookback
- grasp cause-effect relationships in their reading
- determine correct sequence of events through identification and comprehension of time markers
- determine meaning by identifying antecedents of anaphoric substitutes and ellipses
- increase their general word stock through exposure to new vocabulary
- draw word meaning from contextual, syntactical, and structural clues
- interpret figurative language appropriate to their level.

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### GENERAL DIR-LE STEPS

#### DIRECTED INTERACTIVE READING-LANGUAGE EXPERIENCE (DIR-LE)

##### INTRODUCE THE STORY

1. Stimulate interest in the story.
2. Assess, activate, and build essential story-specific vocabulary and conceptual background.
3. Help pupils set purposes for reading.

##### GUIDE THE READING

1. Provide opportunities for pupils to clear up confusions.
2. Model, explain, and demonstrate reading strategies.
3. Involve pupils in evaluating their use of reading strategies.
4. Emphasize story structure.
5. Probe the degree (completeness) and depth of pupils' comprehension.
6. Help pupils refine, deepen, extend, and apply their understandings.
7. Determine the need and purpose for rereading (orally or silently or both) part or all of the segment.

##### GUIDE THE FOLLOW-UP ACTIVITIES

1. Provide further opportunities for pupils to clear up confusions.
2. Further probe the degree (completeness) and depth of pupils' comprehension.
3. Help pupils further refine, deepen, extend, and apply their understandings.
4. Assist pupils in integrating ideas into a cohesive, meaningful whole.
5. Involve pupils in evaluating their own learning.
6. Evaluate the effectiveness of the DIR-LE.

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## SPECIFIC DIR-LE STEPS: MODEL LESSON PROCEDURES

### STORY: "INNER STRENGTH" INTRODUCE THE STORY

#### STORY BACKGROUND, THEME, AND ANALYSIS

Except for the fictional friend Kathy, this story is true. (A related story is "Balto," page 74 of the Reader. The Iditarod follows much the same trail as did the rescuers in "Balto.") Susan Butcher was not the first woman to enter or win the Iditarod (Libby Riddles won in 1985). However, the story stresses Susan's overcoming setbacks, not giving up the pursuit of her goal, and achieving new records in a "man's race." Young readers see that with determination and perseverance, people, especially women, can meet challenges that others think are beyond them.

OBJECTIVE(S): Lessons may be adapted to focus on one or more of the objectives on pages 6-7 of this Teacher's Edition or on other teacher-created objectives.

#### STEP 1 — Pupils **STUDY** the title and the illustration.

##### What we know from the title:

Someone had a special strength inside her or him.

##### What we want to know after reading the title:

Who had this strength? What kind of strength was it? Why was it inside the person? Why did (s)he need it?

##### What we already know about the ideas in the title:

###### *Key Concept: strength*

Strength is being strong. There are other kinds of strength besides body (physical) strength. *Will power* (determination) is a strength of mind and heart, an inner strength that keeps us going toward a goal when we are tempted to give up. Another inner strength is *moral strength*, which fortifies us to do the difficult but right thing when we are tempted to do the attractive but wrong thing. Are there still other kinds of inner strength? (e.g. courage)

##### What we know from the illustration:

Two women are talking. The dark-haired one seems younger. She seems to be reading or talking about an item in the newspaper she is holding. The light-haired woman is listening but doesn't seem to think much of what she is hearing. The women are well dressed. They are in a mountainous area, such as the American West. It is spring or summer, because the trees are in bloom.

##### What we want to know after seeing the illustration:

Who are the women? What news has the dark-haired one read? What is she telling the other woman? Why doesn't the light-haired one think much of what she is hearing? What is the connection between the women?

##### What we already know about the ideas in the illustration:

Newspapers include news about faraway places. People who live in the mountains usually like outdoor life. Most young people like to plan for their future and talk about their plans with close friends.

**STEP 2 — Pupils PREDICT** what will happen in the first silent reading segment (SRS) and how the story will develop.

The younger woman is in college. She is telling her teacher about something in the paper connected with their class.

The older woman is a doctor, and the younger woman has just read of a new cure for her disease. The doctor doesn't think the cure will work. The young woman will have a serious operation, but she will find the strength to pull through.

The two women are friends. The younger woman is telling of something she wants to do—something she has just read about in the paper. The other woman doesn't think she can do it, but she will.

**STEP 3 — Pupils READ** the first segment silently.

**STEP 4 — After the pupils HAVE READ** the segment, they —

**A check their predictions:**

Yes, one prediction was right. The younger woman was telling her friend about something she planned to do, and the older woman didn't think that she could do it.

**B discuss what they learned and answer DISCUSSION QUESTIONS:**

*Key Concept: Alaska*

Alaska is the largest and most northern American state. Much of it is very cold and often snow-covered. Before airplanes were common, how could people travel long distances over snow-covered country? (by dog sled)

*Key Concept: dog-sled race*

This is a race among sleds pulled by teams of up to 14 dogs. A person at the back of the sled drives each team. Some dogs may be left at check points along the way. Two kinds of sled dogs are Siberian huskies and Alaskan malamutes. What are some things that a race sled would have to carry?

**C clear up confusions**

**D reflect on their sensory impressions:**

**Pupils can see . . .** the rest of the room: log or paneled walls with pictures of horses or other western scenes . . . a stone fireplace . . . the outside of the house: a low ranch house made of logs, with firewood stacked on the porch and a pickup truck parked outside . . . a road leading up into the mountains . . . a hawk circling above . . .

**Pupils can hear . . .** the ticking of a clock on the mantel . . . the hissing of a teapot boiling on the stove . . . the sighing of the wind through the trees . . . the call of the hawk . . . the whine of a truck ascending the mountain . . .

**E answer SPECIAL FOCUS QUESTIONS** (they may be introduced at this point or as a Follow-up Activity):

**F summarize the silent reading segment (SRS):**

Susan read about a dog-sled race in Alaska and wanted to enter it, even though her friend said she was crazy. Susan moved to Alaska.

**G ask questions:**

Why would Susan want to enter a dog-sled race against hardy men? What kind of job would she be likely to take in Alaska? Did Susan like animals?

**H predict what will happen next and how the story will develop:**

The men will not let Susan enter the race. Susan will disguise herself as a man and get in. Susan will train the best dogs and win the race. Susan's boss will fire her for training when she should be working.

## GUIDE THE SILENT READING

The pupils repeat **STEPS 1–4** for the remaining silent reading segments.

## INNER STRENGTH

- 1, 1 Eighteen-year-old Susan Bulcher picked up the  
2 newspaper. Her eyes skimmed the sports page.  
3 "Look at this!" she exclaimed. "Some men in Alaska  
4 have started a thousand-mile dog-sled race. Wow!"  
5 Susan's eyes grew dreamy. "It says they'll have one  
6 every year. Kathy, I'm going to enter that race."
- 2, 1 "You want to race sled dogs a thousand miles?"  
2 her friend Kathy cried. "Over snow-covered  
3 mountains, for two weeks in below-zero cold? A  
4 young woman against some of the hardest men in  
5 the world? You're crazy!"
- 3, 1 "Maybe," answered Susan, "but I'm going to do  
2 it. And I'm going to win that race—if not the first  
3 time, then some year soon."
- 4, 1 Susan Bulcher was living in Colorado then, in  
2 1973. She was studying to work with animal doctors.  
3 For winter fun, she loved to speed across the snow  
4 with her sled dogs. Over the next few years she kept  
5 dreaming of moving to Alaska and racing. Then she  
6 heard of a job there. Right away, she packed up  
7 and headed north.

4



### DISCUSSION QUESTIONS 4 & 5

1. What parts of the text match the illustration?  
4, 1, 5-6; 4, 3
2. Why did Susan's eyes grow dreamy? 4, 1, 3-6
3. What do you think made the people in the dog-sled race so hardy? (?)
4. Why would Kathy think Susan was crazy? 4, 2; (?)
5. Did Susan think she would win the first time she raced? 4, 3, 2-3
6. What can you tell about Colorado? 4, 4, 3-4; 5, illustration
7. Why do you think Susan wanted to enter and win the Iditarod? 4, 4, 3-4; (?)
8. What are some things you dream of doing? (?)
- 9.
- 10.

### SPECIAL FOCUS QUESTIONS

#### TIME MARKERS

- |                        |                        |
|------------------------|------------------------|
| 4, 1, 6 every year     | 4, 2, 3 two weeks      |
| 4, 3, 3 some year soon | 4, 4, 4 next few years |
| 4, 4, 6 Right away     |                        |

#### ANAPHORA

- |   |                          |
|---|--------------------------|
| 4, 1, 3 this (the sports page)                  |                          |
| 4, 1, 5 it (newspaper sports page)              |                          |
| 4, 1, 5 they('ll) (Some men in Alaska)          |                          |
| 4, 1, 6 that race (thousand-mile dog-sled race) |                          |
| 4, 4, 3 she (Susan)                             | 4, 4, 6 there (Alaska) W |

#### VOCABULARY

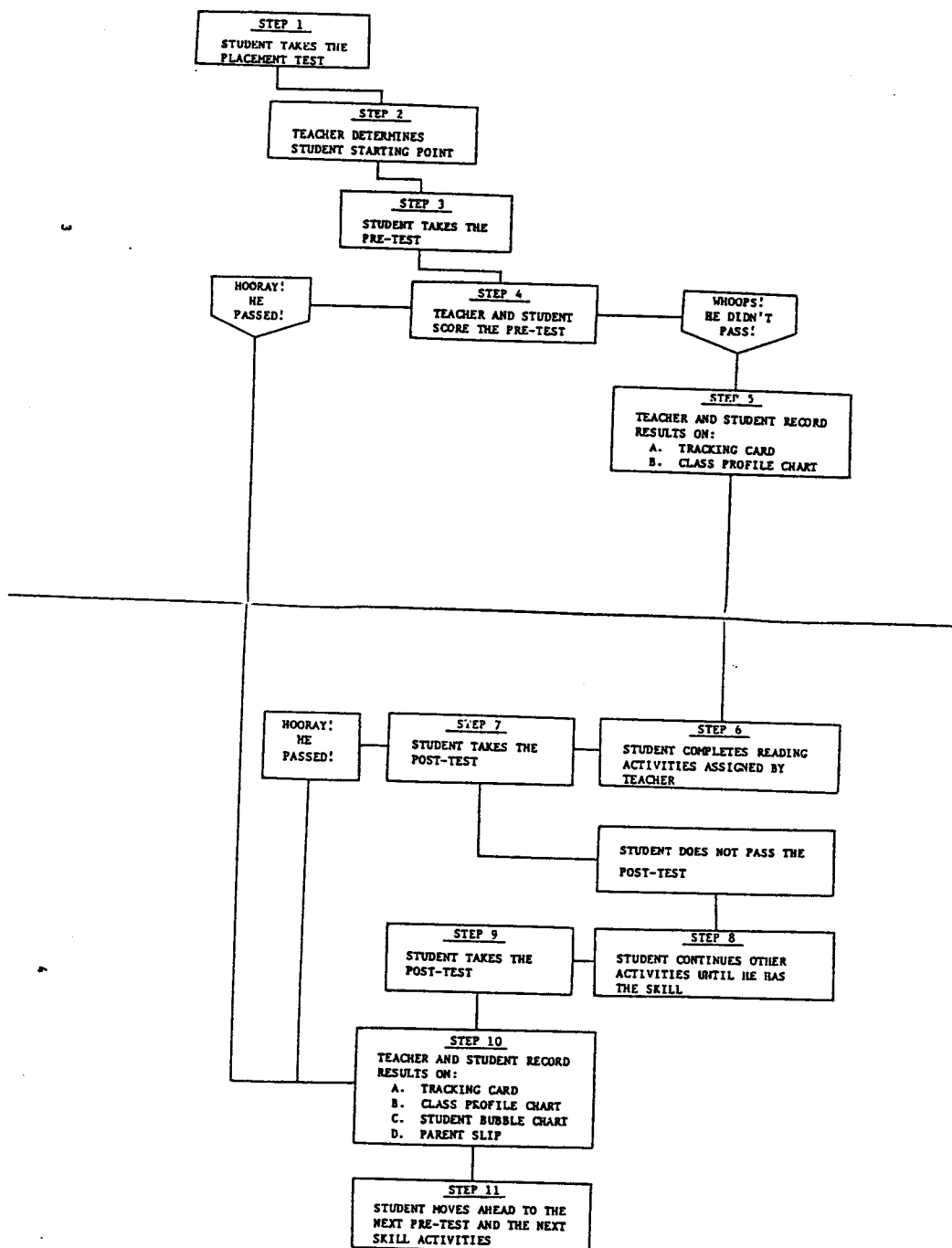
- |   |
|---|
| 4, 1, 2 skimmed (read very quickly) W                   |
| 4, 2, 3 below-zero (very, very cold) W                  |
| 4, 2, 4 hardest (strongest; most able to bear hardship) |

#### SRS SUMMARY

Young Susan Bulcher wanted to enter a 1,000-mile dog-sled race in Alaska. Her friend Kathy thought she was crazy. Susan moved to Alaska.

Excerpts from Information Booklet on Systematic Approach to Reading Improvement, (no date) follow. The method's acronym is SARI.

#### THE SARI BLUEPRINT



## TRACKING CARD

WORD ANALYSIS	TEST		COMPREHENSION
	PRE	POST	
1.2.1 Rhyming sounds	_____	_____	0.3.1 Sequence pictures
1.2.2 Initial sounds	_____	_____	1.3.1 Sequence pictures
2.2.1 Rhyming sounds	_____	_____	1.3.2 Sequence words
2.2.2 Initial sounds	_____	_____	2.3.1 Sequence sentences (2)
3.2.1 Rhyming words	_____	_____	2.3.2 Sequence sentences (3)
3.2.2 Initial sounds	_____	_____	2.3.3 Sequence sentences (4)
4.2.1 Final sounds	_____	_____	3.3.1 Sequence sentences (4)
4.2.2 Rhyming words	_____	_____	3.3.2 Details
4.2.3 Initial sounds	_____	_____	3.3.3 Main ideas
5.2.1 Inflectional endings	_____	_____	4.3.1 Sequence sentences (5)
5.2.2 Final sounds	_____	_____	4.3.2 Details
5.2.3 Digraph sounds	_____	_____	4.3.3 Main ideas
5.2.4 Vowel sounds	_____	_____	5.3.1 Sequence sentences (5)
6.2.1 Suffixes	_____	_____	5.3.2 Context clues
6.2.2 Two letter blends	_____	_____	5.3.3 Main ideas
6.2.3 Initial & final digraphs	_____	_____	6.3.1 Story endings
	_____	_____	6.3.2 Details
	_____	_____	6.3.3 Main ideas
	_____	_____	7.3.1 Judgments
	_____	_____	7.3.2 Details
	_____	_____	7.3.3 Main ideas
	_____	_____	8.3.1 Facts & opinions
	_____	_____	8.3.2 Place relationships
	_____	_____	8.3.3 Details
	_____	_____	9.3.1 Validity of statements
	_____	_____	9.3.2 Time relationships
	_____	_____	9.3.3 Themes
	_____	_____	10.3.1 Sequence inferences
	_____	_____	10.3.2 Time relationships
	_____	_____	10.3.3 Sequence main ideas
	_____	_____	11.3.1 Persuasions
	_____	_____	11.3.2 Time relationships
	_____	_____	11.3.3 Details
	_____	_____	12.3.1 Conclusions, characters, moods, author's intent, & outlining

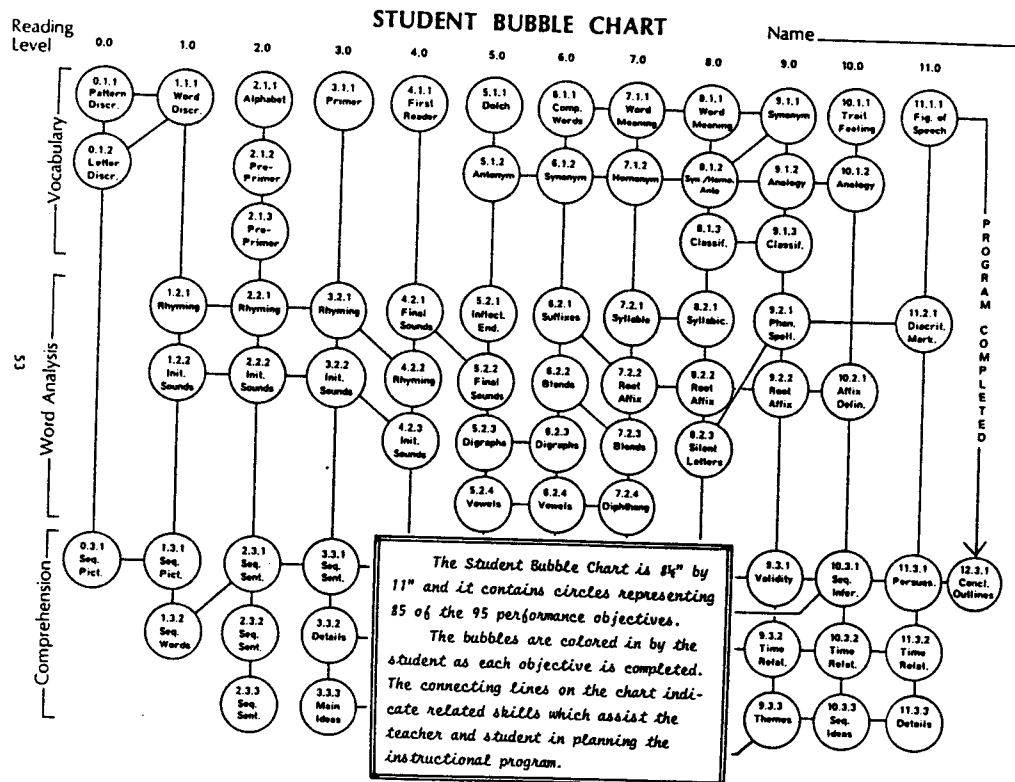
*This section of the inside of a Tracking Card is a part of a folded card which is 8-3/4" by 11". It is the primary management device used by the classroom teacher. The oral reading performance objectives are listed on the back of the card. Dates of testing or unsuccessful attempts at skill mastery are recorded on the card. This card may be kept in the student's cumulative school records from year to year, and the performance data insure continuity of instructional activities. It may be used as a folder where other SART materials may be stored.*

## TRACKING CARD

WORD ANALYSIS	TEST		COMPREHENSION
	PRE	POST	
1.2.1 Rhyming sounds			0.3.1 Sequence pictures
1.2.2 Initial sounds			1.3.1 Sequence pictures
2.2.1 Rhyming sounds			1.3.2 Sequence words
2.2.2 Initial sounds			2.3.1 Sequence sentences (2)
3.2.1 Rhyming words			2.3.2 Sequence sentences (3)
3.2.2 Initial sounds			2.3.3 Sequence sentences (4)
4.2.1 Final sounds			3.3.1 Sequence sentences (4)
4.2.2 Rhyming words			3.3.2 Details
4.2.3 Initial sounds			3.3.3 Main ideas
5.2.1 Inflectional endings			4.3.1 Sequence sentences (5)
5.2.2 Final sounds			4.3.2 Details
5.2.3 Digraph sounds			4.3.3 Main ideas
5.2.4 Vowel sounds			5.3.1 Sequence sentences (5)
6.2.1 Suffixes			5.3.2 Context clues
6.2.2 Two letter blends			5.3.3 Main ideas
6.2.3 Initial & final digraphs			6.3.1 Story endings
			6.3.2 Details
			6.3.3 Main ideas
			7.3.1 Judgments
			7.3.2 Details
			7.3.3 Main ideas
			8.3.1 Facts & opinions
			8.3.2 Place relationships
			8.3.3 Details
			9.3.1 Validity of statements
			9.3.2 Time relationships
			9.3.3 Themes
			10.3.1 Sequence inferences
			10.3.2 Time relationships
			10.3.3 Sequence main ideas
			11.3.1 Persuasions
			11.3.2 Time relationships
			11.3.3 Details
			12.3.1 Conclusions, characters, moods, author's intent, & outlining

This section of the inside of a Tracking Card is a part of a folded card which is 8-3/4" by 11". It is the primary management device used by the classroom teacher. The oral reading performance objectives are listed on the back of the card. Dates of testing or unsuccessful attempts at skill mastery are recorded on the card. This card may be kept in the student's cumulative school records from year to year, and the performance data insure continuity of instructional activities. It may be used as a folder where other SART materials may be stored.

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# Sample SARI lesson

1. Read the words.  
2. Draw a line from a word in column A to a word in column B to form a compound word.  
3. Write the word in column C.

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SECTION: \_\_\_\_\_  
PART I: \_\_\_\_\_  
PART II: \_\_\_\_\_  
SCORE: \_\_\_\_\_

A	B	C	A	B	C
when	bird	_____	up	yard	_____
suit	cake	_____	for	house	_____
cup	ever	_____	any	teiler	_____
post	way	_____	story	where	_____
blue	case	_____	back	get	_____
high	man	_____	dog	on	_____

**PART II**  
Use a word from column C to complete each sentence.

- Mother was picking the \_\_\_\_\_.
- The teacher was a good \_\_\_\_\_.
- The little \_\_\_\_\_ was in the nest.
- The \_\_\_\_\_ brings us many letters.
- Tom and Susan were playing in the \_\_\_\_\_.
- Father made a new \_\_\_\_\_ for our puppies.
- After the birthday party, one \_\_\_\_\_ was left.
- The new book was put \_\_\_\_\_ the table.
- There were many trucks on the \_\_\_\_\_.
- Please don't \_\_\_\_\_ your money.

**COMPOUND WORDS**

Draw a line from a word in Column A to a word in Column B to form a compound word. Write the compound word in Column C. Use the compound words to complete the sentences.

A	B	C	A	B	C
side	shine	_____	pan	day	_____
to	one	_____	in	way	_____
cow	boys	_____	birth	yard	_____
some	night	_____	rail	cakes	_____
air	walk	_____	camp	fire	_____
sun	plane	_____	barn	to	_____

- We had \_\_\_\_\_ for breakfast.
- The rooster thinks he is king of the \_\_\_\_\_.
- \_\_\_\_\_ work on a ranch.
- They sat around the \_\_\_\_\_ to keep warm.
- The \_\_\_\_\_ tracks crossed plains.
- Girls played jacks on the \_\_\_\_\_.
- Can you stay at my house \_\_\_\_\_?
- The \_\_\_\_\_ will help the plants grow.
- Will \_\_\_\_\_ please help me?
- Run \_\_\_\_\_ the house.

**COMPOUND COMPUTER**

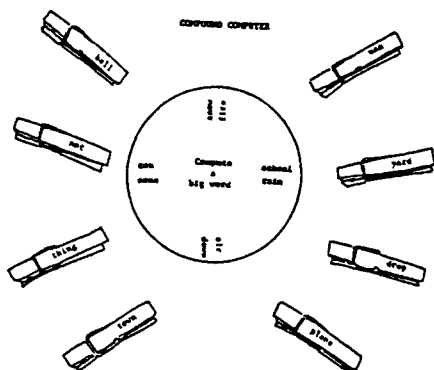
**OBJECTIVE:** The learner will recognize compound words.

**MATERIAL:** 9 inch cardboard circle having words that will make compound words, and clothespins with other parts of compound words.

**PLAYERS:** 1

**DIRECTIONS:** Player selects a clothespin and clips it to the wheels to form a compound word.

**SAMPLE:**



1. Read the words.  
2. Draw a line from a word in column A to a word in column B to form a compound word.  
3. Write the word in column C.

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SECTION: \_\_\_\_\_  
PART I: \_\_\_\_\_  
PART II: \_\_\_\_\_  
SCORE: \_\_\_\_\_

A	B	C	A	B	C
tooth	one	_____	some	corn	_____
moon	ball	_____	my	cars	_____
lunch	room	_____	basket	keeper	_____
in	light	_____	street	ball	_____
water	side	_____	zoo	self	_____
any	brush	_____	pop	where	_____

- PART II**  
Use a word from column C to complete each sentence.
- The lion was \_\_\_\_\_ the cage.
  - The \_\_\_\_\_ was feeding the animals.
  - The \_\_\_\_\_ was very bright.
  - The school \_\_\_\_\_ was full of hungry children.
  - Many people were eating hot \_\_\_\_\_.
  - Five ball boys were playing \_\_\_\_\_ at school.
  - Six rats went over the \_\_\_\_\_.
  - Most \_\_\_\_\_ move slowly on the tracks.
  - I wrote the story \_\_\_\_\_.
  - Susan uses her \_\_\_\_\_ every day.

## Excerpts from Passages Teacher's Guide (1978)

### **PASSAGES** A READ AND WORK SKILLS PROGRAM

#### **THE PURPOSE**

PASSAGES is a unique reading program that combines reading for fun with skill development. The goal of the program is to get students reading and build their reading skill with exercises that reinforce their reading experiences.

Six PASSAGES novels provide easy and fun reading. These reading experiences motivate students to read more, and help develop a positive attitude toward reading.

Then, to help the students understand what they read in the novels, and at the same time, improve their reading skill, there are six PASSAGES workbooks — one for each novel.

#### **THE AUDIENCE**

PASSAGES is for junior and senior high school students who want to read books that are challenging, yet easy enough to read without difficulty. It's for students who want to learn to read better, but don't know how to go about changing their reading habits.

The PASSAGES novels were written for teen-agers who like sophisticated content, but easy reading. So, each deals with mature themes — themes of interest to most junior and senior high school students; yet, all are easy to read because sentences are short and simple, and vocabulary has been carefully controlled. Each book reads at a 3.0-4.0 grade level.

The PASSAGES workbooks were designed for students who want to learn to read better — on their

own. Each workbook teaches strategies for building a better vocabulary and improving understanding of what is read. They're self-pacing, self-correcting, and structured to make learning more effective and relatively easy. To help these students learn on their own, exercises are brief. Each focuses on a single clearly identified skill. And directions are clear and simple, with answers provided immediately after each exercise.

#### **THE COMPONENTS**

##### **The PASSAGES Novels**

The PASSAGES novels are stories about young people caught up in the stresses of contemporary living. These stories — peopled with characters that are believable and conflicts that are genuine — should be of interest to most junior and senior high school students.

Each is approximately one hundred pages long. The sentences and vocabulary have been carefully edited so each reads at about a 3.0-4.0 grade level.

While the books are easy read, they are not offensively simple. They look and read like typical teen-age paperback novels, with mature story themes, normal type-size, and appealing illustration. All can be read easily by students in junior and senior high school — even those students who read way below grade level.



The Vandal A transfer student has a hard time making friends in his new school. When most of the students snub him, he vandalizes the school for attention. Because she feels sorry for him, one of the more popular girls in the high school befriends the lonely boy. But, what she has intended as kindness he misinterprets as love. Hurt and angry, the young boy kidnaps the girl and keeps her prisoner. When a teacher at the high school is attacked, the young man is blamed and pursued by the police. He is finally caught and hospitalized. The young girl is shocked when she discovers that it was really her boyfriend who attacked the teacher and vandalized his room.

### The PASSAGES Workbooks

The PASSAGES workbooks have more than twenty-five skill exercises that help students understand what they read in the PASSAGES novels and develop their reading skills. Each workbook follows the same format. Only the vocabulary and reading passages differ in each workbook.

To make learning a lot easier for your students, the six lessons in each workbook are similar in format, and exercises are repeated frequently to assure skill mastery.

Three of the lessons in each workbook (GETTING THE WORD) teach vocabulary selected from the companion PASSAGES novel. First each word is introduced and taught in context. Then exercises are provided to give students lots of practice with each word in several settings. These exercises help the students master the vocabulary and teach them strategies for future vocabulary development.

The remaining lessons (GETTING THE MEANING) help the students read for main idea, detail, draw conclusions, understand figurative language, summarize key events, and make judgments. The exercises teach these skills using passages excerpted from the companion PASSAGES novels. Consequently, the students work with material in the workbooks that is both easy to read and familiar.

### GETTING THE MEANING

#### Tracking Main Ideas

In the Main Idea exercise, the students read selections excerpted from the story and then choose a statement that summarizes each passage. To select the one statement that best describes the message of a passage, they must differentiate details from the main idea.

#### Getting the Facts

In the Getting the Facts exercise, the students read passages excerpted from the novel and then select the detail that best completes a factual statement about each. The purpose of the exercise is to teach them to locate facts or details when needed, not to test factual recall.

#### End Game: Drawing a Conclusion

The students draw conclusions in End Game: Drawing a Conclusion by "reading between the lines" for meaning that is implied by the author's actual words. That is, they infer from what the author suggests or hints. In this exercise, the students read beyond the words for meanings that the author implies, but says only indirectly.

#### A Manner of Speaking

In A Manner of Speaking, the students interpret the meaning of idioms and figures of speech. Using the clues provided in the context, they select the one statement that best identifies the meaning of each figurative phrase, reading the figurative statements as a complete unit rather than literally, or word for word. Each idiom or figure of speech appears in the PASSAGES novels.

#### Summing Up

To sum up, the students must summarize major events of several chapters from the PASSAGES novels. They read three paragraphs and select the one that best describes the story events. In the Summing Up exercise, emphasis is on selecting a coherent, brief summary.

#### You Be the Judge

In the final exercise, the students make a judgment. They take a stand with an opinion or generalization in the story, and then explain their position. Drawing on personal experience and knowledge, they evaluate or judge what they read. The You Be the Judge exercise forces the students to react. Because they're encouraged to agree or disagree with statements from the story and express their viewpoint, great latitude in content, quality, and character of response should not only be expected, but encouraged as well.

### GETTING THE WORD

#### New Words & Old

The first exercise in each vocabulary lesson is, in a sense, a self-test because the students evaluate where they stand with each vocabulary word. They determine their status with each word by circling vocabulary that is not familiar. Then they go on to master the vocabulary.

#### Clues & Cues

In the Clues & Cues exercise, the students study each of the vocabulary words in context. First, they predict a meaning for each word from context and then check their prediction with the dictionary. Because a word can have many different meanings, depending on how it is used, they use both context and dictionary to determine meaning.

#### Ways to Mastery

These three exercises help the students master the vocabulary by providing practice with the words in several contexts. In the first exercise, the students select a definition for each word that seems appropriate for the context. In the second, they insert the vocabulary into new context. Finally, the students determine whether several statements using the vocabulary words are true or false.

## GETTING THE WORD

In the Getting the Word lessons you deal with new vocabulary. You meet the vocabulary words in context and then use them often in several settings. You learn new words and discover strategies for building a better vocabulary.

### New Words & Old

The first exercise in each vocabulary lesson is a self-test. It's designed to help you "flag" words that you don't know. All too often, even good readers have this bad habit — "glancing over" words that are not familiar (or only vaguely familiar) as they read. New Words & Old forces you to pause and think about where you stand with the vocabulary words. Then, when you know your status with each word, you move on to master the vocabulary.

### Clues & Cues

In the Clues & Cues Exercise, you study the vocabulary words, looking carefully at context for clues to meaning. First, you predict the meaning of each word. Then you check your prediction with the dictionary. Because a word can have different meanings depending on how it is used, Clues & Cues has you looking at context and dictionary to refine that meaning.

### Ways to Mastery

To master a word, you must use it. These exercises help you master the vocabulary words by giving you lots of practice with each word in several settings. First, you pick a definition for each word based on how it's used. Then you use each word in a new setting. Finally, you decide if the words are being used incorrectly or correctly in new context.

## GETTING THE MEANING

In the Getting the Meaning lessons, you work with the ideas you read in the PASSAGES novels. You learn to read for the main idea, locate details, draw conclusions, understand figurative language, summarize key events, and make judgments.

### Tracking Main Ideas

In the Main Idea Exercise, you read passages from the novel and tell what the passages are about. A paragraph generally has a main idea. It has a message. Or, at least it should! In the Tracking Main Ideas Exercise, you decide that message. You choose a statement that identifies the message for several passages.

### Getting the Facts

In the Getting the Facts Exercise, you read for important details. First, you read passages from the story. Then you select the detail that best completes a factual statement about each.

The purpose of the exercise is to teach you to locate facts or details when you need them, not to test factual recall. The answers to all the detail questions are in the passages — you simply find them.

# Excerpts from The Passages Reading Power Workbook (1978)

### End Game: Drawing a Conclusion

Authors cannot and will not tell everything. They expect you to "dig" for meaning that they only suggest or imply. In End Game: Drawing a Conclusion, you "read between the lines" and draw a conclusion from hints the author has planted in the passage. You infer the meaning of a remark, an event, an expression, even the author's tone. For each passage, you pick a statement that tells what the author is suggesting but not saying.

### A Manner of Speaking

The A Manner of Speaking Exercise helps you see how idioms and figures of speech work. Idioms and figures of speech are phrases or groups of words that together have a special meaning. Often they cannot be read literally — that is, word for word. They are meaningful only as a complete unit.

In this exercise, you read idioms and figures of speech in context. Then, using clues hidden in the context, you decide which statement best shows the meaning of each figurative phrase.

### Summing Up

The Summing Up Exercise tests your recall of story events. It gives you practice in summarizing major events of several story chapters. In the exercise, you choose the one paragraph of three that best describes these events. In two of the three paragraphs, events or details are either distorted or incorrect. In the third, the events are both correct and organized into a brief, coherent summary.

### You Be the Judge

The final exercise gives you the chance to evaluate, judge, and express your opinion about what you read in the novel. In this activity, you agree or disagree with several statements.

Authors are people with opinions and biases, just like the rest of us. Because their viewpoints often appear in their writing, it's important that you learn to react to their statements rather than accept them blindly as fact or truth. In the You Be the Judge activity, you agree or disagree with several statements and then express your viewpoint.

You can improve your reading skill — with a little help from a friend. Everything you need to build your vocabulary and boost your comprehension is provided in the PASSAGES Program. PASSAGES. It's the program to get you there.

# 1 GETTING THE WORD

## NEW WORDS & OLD

Look at the list of words in the box on the right. These are the words you will be working with in this lesson. These are words from *The Vandal*. Are there words which are new to you? Circle the new words.

vandal	glistening
sneered	intently
rodent	briskly
shrill	coincidence
disloyal	mocked
grim	deliberately

## CLUES & CUES

Each of the words introduced in this lesson appears in the first three chapters of *The Vandal*. The sentences in which these words appear are given on this and the following pages. Read the sentences. Pay special attention to how the words are used. As you read, watch for clues that will help you determine the meaning of each word. Look for meaningful clues hidden in context. After you have read the sentences, write a meaning for each word on the lines provided. Choose a meaning that seems to fit the way the word is used in the sentences. Then use a dictionary to check your response. Write an appropriate dictionary definition for each word. Compare the dictionary definition with the meaning you identified from context.

### 1 VANDAL

Sunday night somebody broke into Thomas Jefferson High. The art room was vandalized. It was raining Sunday night and most of the neighbors were inside their houses. Nobody saw the vandal strike.

"Look," Michelle Dennis said, "my seascape is ruined. It's all smeared with red paint. . . ."

My definition \_\_\_\_\_

Dictionary \_\_\_\_\_

### 2 SNEERED

Damon sneered, "They were all stupid looking. I mean, who cares? You are all acting like somebody died or something. Why don't we get violins and play sad music?"

My definition \_\_\_\_\_

Dictionary \_\_\_\_\_

# 2 GETTING THE MEANING

## TRACKING MAIN IDEAS

The exercise that follows asks you to identify the main idea of several passages from the story.

### Exercise 1

Read the passages that follow. Choose the statement that best summarizes the main idea for each passage. Fill in the circle next to the statement that best summarizes what the passage is about.

#### PASSAGE

Michelle felt strange. She felt sorry for Damon, but she wondered if she were making a mistake by being nice to him. He seemed to have a weird way of looking at the world. He seemed to believe everybody was against him. Michelle stayed away from people like that. Yet, Michelle felt sorry for Damon. Part of her did not want to get involved with somebody who was a little bit scary. The other part of her wanted to reach out to Damon because he was so lonely and unhappy.

- 1 a Michelle does not want to get involved in any way with Damon.
- b Michelle has no fears about helping a person like Damon.
- c Michelle is afraid of Damon, yet she wants to help him.

#### PASSAGE

Damon sneered, "I know why you like him."

Michelle flushed. "And why is that?"

"Because you think he's handsome. All you doxy girls are the same. You like pretty-boy guys. That's why no doxy girl ever looked twice at me. I'm not good-looking." He seemed really bitter.

- 2 a Damon thinks girls are only interested in good-looking boys.
- b Damon thinks girls are interested in him because he's not good-looking.
- c Damon thinks girls are not interested in good-looking boys.

#### PASSAGE

Damon laughed. He acted like he wanted people to hate him. Michelle couldn't figure that out. He wore cheap-looking clothes that didn't match. He was sort of a loner. But why would he say things just to make people dislike him more?

- 3 a Damon acts as though he wants people to dislike him.
- b Damon acts like he wants people to like him.
- c Damon wears cheap clothes because he wants people to like him.

2

#### PASSAGE

"Michelle, my dad called me into the study last night. He sat there smoking his pipe. He said he expects me to graduate from high school with an A average. He said he'll pay for my college if I do. Then he said I could come into his law firm as a junior partner after college. Do you know what that means? I got it made, Michelle. All I have to do is graduate from high school with an A average...."

- 4 a Randy is worried that his father won't find a partner for his law firm.
- b Randy believes there are more important things than getting good grades.
- c Randy is only concerned that he graduate from high school with an A average.

#### PASSAGE

"The cops asked me some questions this morning. Every time something happens, I get blamed. Well, my uncle came and told them I was in bed snoring when Sevier's house was shot at. My uncle was mad that he had to come down to school. He said he'd bust my head if I caused any trouble. People always blame me for stuff I didn't do."

- 5 a Damon's uncle never gets angry when Damon gets in trouble.
- b Damon often gets blamed for bad things that happen.
- c Damon enjoys causing trouble.

Check your answers.

1. c; 2. a; 3. a; 4. c; 5. b.

## GETTING THE FACTS

The exercise that follows asks you to find important details in passages from the story. By careful reading, all the answers to the questions can be found in the passages.

#### PASSAGE

Michelle felt bad. It was true — what the boy said. Most of the kids at Jefferson were in tight little groups. Nobody really tried to make new friends. Michelle figured that a new boy like Damon must really feel lost. Maybe that was why he acted so weird in art class. He was just trying to get people to notice him. Michelle forced a smile to her face. "I guess we are kind of snobbish here. I'm sorry."

### Exercise 2

Read the passages that follow. Then read the statements given with each selection. Choose the response with the details that best completes each statement. Fill in the circle of that response.

- 1 Michelle suspects Damon acts weird in art class because:
  - a he's lonely and wants the students to notice him.
  - b he is a snob and doesn't want to make new friends.
  - c he's friendly and that is his way of making friends.

## APPENDIX J

### Specific Summary of Accelerated Learning and the LASER Curriculum

Accelerated Learning was taught in the target special education program called LASER and is listed on student schedules and report cards this way. The LASER acronym was created by the 1984-85 special education students at this target school. It stands for Learning Acceleration through Strategic Educational Reinforcement.

The LASER Special Education Program offers seven classes with the following grade equivalency (g.e.) entrance requirements:

- Reading I, g.e. 1.7-2.9
- Reading II, g.e. 3.0-4.5
- Reading III, g.e. 4.5-6.0
- Language Arts/Spelling I, g.e. 1.0-3.5
- Language Arts/Spelling II, g.e. 3.6-6.0
- Math, open grade equivalencies
- Study Skills, 8th graders only, by referral or request

The LASER class serves approximately 30 students on a daily basis. The staff consists of one teacher and an aide. The aide serves in the language arts/spelling classes and math class. The aide also conducts speech and physical therapy classes. In addition, she conducts the Eighth Grade

Study Skills Class. An additional aide, from the self-contained classroom, comes with two self-contained students and helps out in the Language Arts/Spelling I program. Fridays a retired teacher volunteers to work individually with students in reading.

All classes except math and those conducted by the Aide are taught this year using Accelerated Learning techniques. Music, visualization and anxiety/stress reducing exercises are incorporated into the curriculum. Basic components of each lesson include visualization, review, preview of the day's lesson, lesson presentation, active practice and review of the day's lesson with accent on difficulties encountered.

Self-esteem, success, relaxation, motivation, group belonging and caring as well as lesson content are topics involved with visualization exercises.

Each student's Individual Educational Plan is completed at the beginning of the year or at the time of program entrance. Testing is conducted each fall and spring. Parents are notified of the results.

## 1. A WEEK OF INTRODUCTORY PLANS

Next is a way spreading one lesson at 50–60 minutes per day over several days to a week:

### *Monday's Plan*

Introduction of the relaxed mental state to get the cooperation of the students.

1. Go through the physical exercises
2. Mind calming (Early Pleasant Learning Restimulation)

### *Tuesday's Plan*

1. Physical Exercises (5 to 7 minutes)
2. Mind Calming (2 to 3 minutes)
3. Globalization of this lesson (3 to 5 minutes)
4. Presentation — Active (20 minutes), with Type A Music

Students are to interact with the materials, that is, hands and eyes on the material. Don't expect to cover very much material until they know what is expected of them.

5. Presentation — Passive; that is, the students are to be passive (eyes closed, physically and mentally relaxed). (8 to 10 minutes)

## CLASSROOM APPLICATIONS

141

Type B Music, Baroque 4/4 time, slow rhythmic movements

Use a metronome at 60 hertz to synchronize the breathing of students.

6. Quiet closing (1 minute)

### *Wednesday's Plan*

1. Practice Session (Joy, absence of tension)

Games, dances, marches, songs, stories, playettes which students organize.

Feedback of progress — self-corrected questions, not to be collected.

2. Globalize tomorrow's concepts

Films, teacher prepared playettes, TV presentations of the big picture. Always work from the big picture down to the little facts that are needed to perform any task.

### *Thursday's Plan*

Back to the first day of the cycle.

### *Friday's Plan*

Be creative and use your own variations for elaboration. Try student skits and psychodrama.

We recommend that you start each day's lesson with a few minutes of physical and mental relaxation. See the previous chapter for examples, such as stretches, side bends, and early pleasant learning restimulation. Here are a few additional mind calming examples, where you as teacher provide the necessary guiding phrases.

### *Imagery examples:*

Mind-calming ideas that have been used:

1. Walk up a high hill and look back and see where we were when we started and how high we have come.



2. Walk through a grocery store with your cart. Don't you want to fill it with ideas?

3. When climbing a stairway, do you remember each step until you reach the top?

4. Go to your favorite place and enjoy it again.

5. Let's take a walk in the park.

6. Let's take a walk in a flower garden and enjoy the flowers.

7. Let's go for a walk in a rose garden. Pick out your favorite for size, color and shape. Don't pick it. Let it grow in your mind.

### Music

Type A music — emotional in nature, Classical — if it is still played after 200 years it must have some good qualities.

Type B music — philosophical or intellectual in nature — Baroque 4/4 time.

"... In the first part, the students listen to classical music of an emotional nature; while, in the second part, they listen to classical music of a more philosophical nature.

The new material that is to be learned is read or recited by a well-trained teacher; once during the first part of the concert (solemnly, slowly, with clear diction) and once during the second part of the concert (closer to the normal way of speaking).

At the same time, the teacher must, while taking into account the peculiar features of the music when reading the material and dual-plane wise with intonation and behavior, get a feeling of conviction across to the pupils...."

(Lozanov, 1978, p. 270)

Refer to the music list for music selections of various types.

Table 7-1. Teacher's check list for a SALT lesson

<i>Physical Arrangement of the Classroom</i>	<i>Used</i>
1. Circular arrangement with the teacher closing the circle.	_____
2. Class size limited to 12, preferably.	_____
3. Alternating seating by sexes.	_____
4. Comfortable chairs.	_____
5. Subdued lighting, controllable.	_____
6. Quality music reproduction equipment.	_____

### *Teacher preparation*

7. Authority role, self-confidence. \_\_\_\_\_
8. Subject area mastery and preparation. \_\_\_\_\_
9. Positive beliefs and expectations. \_\_\_\_\_
10. Positive personal communication (body language, facial expression, rhythms and mental images). \_\_\_\_\_
11. Acceptance and respect for all students. \_\_\_\_\_

### *Student preparation*

12. School is a place to learn. \_\_\_\_\_
13. Learning is important. \_\_\_\_\_
14. Teacher as a center of learning. \_\_\_\_\_
15. Respect for other individuals; share the world and teacher. \_\_\_\_\_
16. Physical relaxation exercises. \_\_\_\_\_
17. Mind calming exercises. \_\_\_\_\_
18. Early pleasant learning restimulation. \_\_\_\_\_

### *Presentation of materials*

19. Positive expectation of learning. \_\_\_\_\_
20. Review of previously learned material. \_\_\_\_\_
21. Preview of new material to be studied. \_\_\_\_\_

### *Active session*

22. Dynamic, dramatic delivery. \_\_\_\_\_
23. Three level variation of intonation. \_\_\_\_\_
24. Students have materials to watch and in their hands. \_\_\_\_\_
25. Background music from the classics, type A. \_\_\_\_\_

### *Passive Session*

26. Students physically relaxed, mentally alert. \_\_\_\_\_
27. Done in rhythm with Baroque music, Type B. \_\_\_\_\_
28. Synchronized breathing and music rhythm. \_\_\_\_\_
29. Synchronized breathing (2/4/2) and delivery. \_\_\_\_\_

### *Practice session*

30. Role playing, games or songs. \_\_\_\_\_
31. Psychologically protective personalities (new identities). \_\_\_\_\_
32. Frequent self-corrected quizzes, not collected. \_\_\_\_\_
33. Non-graded, non-evaluative situation. \_\_\_\_\_
34. Error correction done indirectly and immediately. \_\_\_\_\_
35. Mind calming at close of class. \_\_\_\_\_

Some classroom applications of AL follow as excerpted from Suggestive Accelerative Learning Techniques, (Schuster and Gritton, 1986, pages 115-118 and 138-143).

#### CLASSROOM PROCEDURES OUTLINED

Your school day or period must have all of the suggested pieces every day, in the format that is outlined, at least in the beginning while you and the students become familiar with the "new way". This means the material you will cover at the beginning will be very short. Later you can spread your lesson over 2-3 days.

Here are the points or steps we feel you should include in your SALT lessons, even for single 50-60 minute periods:

1. Physical stretching
2. Mind-calming
3. Positive suggestions
4. Preview of materials (globalization)
5. Active presentation (Hands-on material.) This is a dynamic presentation. Hams and prima donnas do very well in SALT presentations.
6. Passive concert of material (psychological relaxation with music)
7. Practice with material, playlike situation, practice in small groups
8. Review of material
9. Self-corrected quiz, for students' reassurance that they have learned today only — non-graded, non-collected. If you need to know what progress has been made, walk around and peek while the students are correcting their papers.
10. A minute of quiet at the close of the class period. (Don't forget to rearm them for passage; some hallways are not for the relaxed person.)

The three main principles are (A) Joy and the absence of tension; (B) Unity of conscious & unconscious; (C) Suggestive linkage to the reserves of the mind. As you follow and practice this outline you'll have more time to follow more suggestive linkage with the unity of which we speak.

Your classroom should reflect your personality — big plants, fish tanks, nice pictures; whatever it is that makes you happy to be there. That makes the suggestive atmosphere much easier to build.

Now about that sound system — you can never have too much quality but you can get by with something less. Cassette recorders are easy to use and tapes to make. Marking the various sections you want to use will make set up time short. It does take two or three different recorders in the room to be able to change music when you want. Volume should not be louder than your normal voice level to allow you to vary above or below as the setting requires.

To get a fresh start with a new group of students, here is one series of daily plans: Here is a model to use when you have students for half a day at a time. We suggest four periods of 45 minutes with a few minutes between the first and second, and a fifteen minute break after the second.

## Visualizations excerpted from Schuster and Gritton (1986, pages 115-118).

### White cloud

Imagine that you are lying on your back on the grass in a meadow or lawn on a clear, summer day... Facing west, you notice the beautiful clear blue sky... You feel very relaxed just watching the clear blue sky... The sky is almost completely empty of clouds... But over on the west horizon you notice a tiny white cloud... That very slowly starts to drift towards you... You are impressed by the purity of the tiny white cloud against the beautiful clear blue sky... Completely relaxed, you simply enjoy the beauty of the little white cloud... You watch in fascination as it drifts closer to you... It's very beautiful against the clear blue sky... You feel at peace, at home with yourself... The cloud drifts closer and closer to you... Now the little white cloud stops over your head and starts descending... Yet completely relaxed, you watch it come down... Now it surrounds you and you become the little white cloud... Completely relaxed and peaceful... Completely without tension just like the little white cloud... Keep that feeling of complete relaxation, and get ready to learn today.

### Mountain sunrise

Imagine that we are walking up a gentle mountain slope just before sunrise... The air is fresh and crisp; everything is so quiet... You feel relaxed, just walking along comfortably up the easy slope toward the top of the hill or mountain... The air is so clear you can see a long way into the valley... Yet before sunrise, but now you can almost see the sun... Now walking along very easily, we reach the top... The sun peeks up on the horizon... Creating a very beautiful sight... Casting long shadows into the valley and peaks far away... Feeling very peaceful, you enjoy this simple beauty... Now the sun is farther up, and you can see things more clearly in the valley... A new beautiful day is starting. Enjoy it and let yourself be open to learning in this same relaxed way today.

### Flower opening

Pick your favorite flower and imagine we have a bud or flower that hasn't opened yet... Time is speeding up so that we can watch the blossom unfold... It's going to be a pretty flower, of your favorite kind... Watch the green covering slowly fall back... The flower now shows its color... You feel very relaxed and are enjoying watching the flower... Now the petals of the flower start to unfold... It's a beautiful sight... The petals slowly unfold further into a very beautiful flower... You simply enjoy watching it... It's completely open now, your favorite flower is now fully open... You're completely relaxed... Ready to learn in an open way like your favorite flower.

### Walk along the beach

All right, let's imagine we're going to take a walk along the beach... You can hear the waves crashing and see them come rolling in to shore... The air feels and smells fresh... There is a slight breeze you can feel on your face... A peaceful and relaxing scene... The waves crashing down and rolling to shore make a very pretty sight... There are a few birds wheeling around over your head... Occasionally the birds cry out... You walk along very peacefully, enjoying the scene and relaxation... You walk along comfortably and easily, relaxed... Take a last look at the waves rolling in... Smell that fresh, salty air... Feel your relaxed walking along... and get ready to learn in this same easy way.

### Flying a plane

Today we are going to fly a big jet airplane... We have been through flying school.... and we know how to fly very well.... We walk up to the airplane easily... Look over our "big bird" with pleasure... Enter the cockpit and sit down in the pilot's chair... We check things out with our copilot... Everything is ok... We start the jet engines... Listen to them whine... We pull away from the dock.... feel the engines whining and just waiting to push us along... We have clearance from the control tower to take off.... We push the throttles ahead... Just feel the engines pushing us down the runway.... faster and faster.... until we start to feel very light.... and the airplane takes off... We're in the air now and climbing rapidly.... It's really easy and fun with those big engines pushing us faster and faster... Climbing higher and higher... Now up to 20,000 feet... Just see how far we can see.... 30,000 feet is where we level off.... Feel the airplane straighten out... Now we put the airplane on autopilot.... and the airplane flies by itself... We can relax now... We are getting close to where we want to go... Yet relaxed, we start down... Feel the plane tip forward and the air noises get a little quieter... Now we're down to 20,000 feet already... Going down smoothly and quietly... Down to 10,000 feet... Coming down easily... Down to 5000 feet... Now we're lined up with the end of the runway... Everything is ok and all set to land... Feel the landing flaps and wheels going into position with a thump... Going more slowly now... Just about ready to touch down... There, feel the wheels screech and the slight bump as we touch down... We reverse the thrust of the engines and rev them up... We slow down quickly now... We brake to taxi speed... Pull off the runway... Taxi along the strip to the landing dock... Very calmly and easily we pull our airplane up to the landing position... Everything checks ok... We shut off the engine.... We're home after a beautiful trip.

## APPENDIX K

## Student Questionnaire

Student#: \_\_\_\_\_

1. Why do you think you achieved most under \_\_\_\_\_ method?

- |                     |                     |                        |
|---------------------|---------------------|------------------------|
| a. music            | i. drama            | q. liked materials     |
| b. relaxation       | j. reading aloud    | r. help at home        |
| c. activities       | k. independent work | s. games               |
| d. small group      | l. motivational     | t. contests            |
| e. movies (mot.)    | m. fun              | u. wanted higher class |
| f. suggestion       | n. did homework     | v. structured          |
| g. strict           | o. teacher funny    | w. phonics taught      |
| h. comp instruction | p. lots of drill    | x. ind. atten.         |
|                     |                     | y. read aloud          |

other: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Under what circumstances would you feel you could succeed in the regular reading classroom?

- |              |               |               |
|--------------|---------------|---------------|
| a. AL used   | e. music      | i. read aloud |
| b. DI used   | f. dramatics  | j. self-paced |
| c. Ecl. used | g. games      | k. _____      |
| d. tutored   | h. activities | l. _____      |

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Other:

## APPENDIX L

## Project Progress Description

The following was excerpted from Frontline, fall, 1989.

ESD 112 Direct Service Cooperative

Project PROGRESS  
(continued from page 1)

A newsletter dedicated to Direct  
Service Cooperative Staff  
working on the...



## Project Progress is Coming

First Testing Slated for October 16-20

**P**roject PROGRESS is a uniquely designed self study evaluation model which will determine the program effectiveness of services to mild and moderately handicapped students within the ESD 112 Direct Service Cooperative. The project is funded by a \$25,000 grant obtained for the Direct Service Cooperative by Chris Tschirgi and Jada Rupley. Jan Reinhardtson and Ann Cavanaugh serve as consultants for the project. Nancy Golden and Chris Tschirgi are the project leaders.

Project PROGRESS (Promoting Review of Gains, Resources, Evaluation Systems and Staff) has three major goals. The first will be to determine the amount of progress mild and moderately handicapped students are making in special education programs over an academic year and correlate that data with pre-determined demographic information. The demographic data will include handicapping condition, time in program, core instructional curriculum, level of teacher training, relationship of program to assessed needs and existing assessment system. The second goal will be to determine if criterion referenced testing combined with precise and timely feed-

back to special education teachers will enhance student performance. The final goal is to use the statistical results of the assessment to complete the self-study process. This will include examining demographic factors that are critical to appropriate evaluations of special education programs and that will be used to design inservice to improve these programs.

The target population includes mildly and moderately handicapped students grades 1 through 8. The students' handicapping conditions include specific learning disabled, seriously behaviorally disordered, mentally retarded, health impaired, visually impaired and hard of hearing. The target population does not include severely handicapped students because their handicapping conditions demand different measurement techniques. Approximately two hundred students in special education classrooms from the twelve schools in the ESD 112 Direct Service Cooperative are targeted for this project. We are currently negotiating with Washougal Special Services to include students from that district in the study to serve as an outside control.

What does all this mean to you folks on the *Frontline*? During the week of October 16-20, the PROGRESS team will

(continued on page 2)

be coming to your district to give your students criterion referenced tests in reading, math and spelling. Master Teachers will arrange the exact date and location for the assessments. Students will be pulled from your classroom for approximately one hour, depending on grade level, and administered the PROGRESS battery. During this time, you will be asked to fill out a data sheet which will consist of a few demographic questions such as the teaching style you use for each of the three subjects. Finally, you will be given a group attitude survey to administer to your class in small groups. It takes no more than twenty minutes to complete. You will then return the completed surveys to the ESD via courier.

Within a week, selected teachers will receive comprehensive test results on each student. They are designed to help you pinpoint student skill strengths and deficits. You will then be able to teach to these deficits in a more precise manner. The project was launched because of the concern that with all the other duties expected of classroom staff, there is often little time for teachers to perform comprehensive criterion referenced testing. Project PROGRESS is designed to fill this void. When completed, the project will provide direction for future inservice for teachers and instructional assistants.

If you have further questions, please contact Nancy Golden or Chris Tschirgi at 574-3216.



## APPENDIX M

Project Progress W-J Score Data  
for Learning Disabled Students

Instructional treatment is indicated. DI = Direct Instruction and T = tutorial method. Blank indicates either Eclectic method or teacher did not state method. W-J testing was conducted in fall of 1989 and spring of 1990.

The total average reading gain was .4958. The total average math gain was .5232.

Student #	Instruction	Fall WJ	Spring WJ	Gain
1		1.3	1.5	.2
2		4.4	5.1	.7
3		1.5	2.0	.5
4		1.9	2.4	.5
5		3.2	3.9	.7
6		2.8	3.4	.6
7	T	3.3	4.0	.7
8		4.6	4.4	.2
9	T	4.7	5.3	.6
10	T	3.1	3.8	.7
11	T	2.9	3.1	.2
12	T	4.7	5.6	.9
13		2.7	3.4	.7
14		2.2	2.5	.3
24		4.2	6.0	1.8
16	DI	3.7	3.7	.0
17	T	1.7	2.3	.6
18		1.6	2.1	.5
19		3.2	3.5	.3
20	T	1.5	2.1	.6
21		1.7	2.0	.3
22	T	1.4	1.7	.3
23	T	1.9	2.4	.5
24	DI	3.1	3.6	.5
25		1.4	1.7	.3
26	T	3.4	4.2	.8
27		4.5	5.3	.8
28	T	4.6	5.0	.4
29		2.2	2.5	.3
30		3.0	3.5	.5
31	T	5.5	6.3	.8
32	T	1.5	1.9	.4

Student #	Instruction	Fall WJ	Spring WJ	Gain
30		3.0	3.5	.5
31	T	5.5	6.3	.8
32	T	1.5	1.9	.4
33	DI	2.5	2.9	.4
34	T	1.7	1.9	.2
35	DI	3.2	3.9	.7
36		2.3	2.7	.4
37	T	5.1	5.6	.5
38	DI	4.4	5.3	.9
39		2.2	2.5	.3
40		1.8	1.9	.1
41		3.1	3.7	.6
42		4.9	5.6	.7
43		1.2	1.4	.2
44		1.9	2.0	.1
45		3.8	4.4	.6
46	T	2.8	2.9	.1
47	T	2.8	2.9	.1
48		2.0	2.9	.9
49		3.0	4.1	1.1
50	T	4.0	4.5	.5
51	T	3.3	4.0	.7
52	T	2.2	3.0	.8
53	T	2.9	3.8	.9
54	T	4.9	5.0	.1
55		5.5	6.1	.6
56		4.1	4.3	.2
57	T	2.1	2.8	.7
58	DI	3.3	4.0	.7
59	T	4.1	4.5	.4
60		1.3	1.9	.6

Student #	Instruction	Fall WJ	Spring WJ	Gain
58	DI	3.3	4.0	.7
59	T	4.1	4.5	.4
60		1.3	1.9	.6
61		1.5	1.9	.4
62	DI	1.5	1.8	.3
63	DI	1.4	1.7	.3
64	T	2.0	2.5	.5
65		2.7	3.0	.3
66	T	1.7	2.1	.4
67	T	4.4	5.1	.7
68		1.6	1.9	.3
69	DI	3.1	3.7	.6
70	T	2.6	3.1	.5
71		4.8	5.1	.3
72	DI	2.1	2.5	.5
73		2.3	2.6	.3
74		5.2	6.3	1.1
75	DI	2.6	2.8	.2
76	T	5.1	5.8	.7
77		2.8	3.6	.8
78		1.9	2.3	.4
79		2.6	2.6	0
80		4.6	5.3	.7
81		3.9	4.5	.6
82		3.8	4.4	.6
83	T	2.3	2.7	.4
84	DI	2.8	3.3	.5
85	DI	2.0	2.3	.3
86	T	2.5	2.9	.4
87	DI	2.0	2.3	.3
88		2.9	3.4	.5