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ABSTRACT
        A practicum was designed to remediate reading skill
deficiencies of four slow third-grade learners by using computerized
instruction. The major goals were to increase instructional reading
levels and reading comprehension; to remediate specific reading skill
area deficiencies; and to increase collaboration among resource
teachers regarding strategy planning and utilization of instructional
materials with the slow learners. Pre- and posttests were
administered and computerized reading instruction was administered
over a 10-week period three times weekly for 45 minutes using the
Minnesota Educational Computing Corporation's Writer word processing
program. Parents and teachers collaborated to remediate the skill
deficiencies of the four students. Books and written checklists were
provided for home documentation of daily reading with parents;
journal entries were kept as well as pupil logs and checklists
regarding mastery of software programs. Analysis of the data revealed
that scores were increased in post reading placement tests
administered orally, mastery of basal unit raw test scores on
specific skill areas increased in eight areas on the Level 8, Unit 3
basal reading test, and by nine skill areas on the Level 8, Unit 4
test. One out of four students increased the raw score for reading
comprehension by 10 points. Collaboration increased among teachers
and parents, along with motivation and self-esteem among students.
(Contains 28 references and four tables of data; four sample student
stories and a letter to parents are attached.) (RS)

Computerized Reading Instruction for Remediating
Deficiencies of Slow Learners: Our Forgotten At-Risk
Elementary Students

by

Deborah Shelton

Cluster 51

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

Nova University

1993

PRACTICUM APPROVAL SHEET

This practicum took place as described.

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This practicum report was submitted by Deborah Kay Shelton under the direction of the adviser listed below. It was submitted to the Ed.D. Program in Child and Youth Studies and approved in partial fulfillment of the requirments for the degree of Doctor of Education at Nova University.

Approved:

_12 - 7 - 93_
Date of Final Approval of
Report

Paul Borthwick, Jr.
Paul Borthwick, Jr.,
Ph.D., Advisor

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I would like to extend sincere gratitude to the following professionals:

To my advisor, Dr. Paul Borthwick, for his insight, wisdom, and assistance.

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To the parents and students I worked with for their time and effort.

To my friends and family for their unlimited faith, patience, and love.

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Learners/Language Arts.

This practicum was designed to remediate reading skill
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instruction.   The major goals were to increase instructional
reading levels and reading comprehension; to remediate
specific reading skill area deficiencies; and to increase
collaboration among resource teachers regarding strategy
planning and utilization of instructional materials with the
slow learners.

The writer administered pre and post reading tests,
implemented computerized reading instruction over a 10 week
period three times weekly for 45 minutes, utilized the
Minnesota Educational Computing Corporation's Writer word
processing program, and collaborated with parents and
resource teachers for the purpose of remediating reading
skill deficiencies of four slow learners. Books and written
checklists were provided for home documentation of daily
reading with parents; journal entries were kept; as well as
pupil logs and checklists regarding mastery of software
programs.

Analysis of the data revealed that scores were increased on
post reading placement tests administered orally by the
writer, mastery of basal unit test raw scores on specific
skill areas increased in eight areas on the Level 8-Unit 3
basal reading test, and by nine skill areas on the Level 8,
Unit 4 test. One out of four students increased their raw
score for reading comprehension by 10 points. Collaboration
increased among teachers and parents, along with motivation
and self-esteem among students.

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INTRODUCTION

Description of Community

The writer teaches in a rural area of the southeastern
United States in a town with a population of approximately
3,700 people with an estimated 25,000 living within a 10
mile radius.   It is a major manufacturing town employing
over 6,000 persons and producing such products as furniture,
infant formula, textiles, printing, tire valves, and
electric motors.   There is a volunteer fire department, a
YMCA, a historical landmark, a community flea market, a
country club, 32 churches, and clubs which include the
Rotary, Lions, Exchange, Kiwanis, Jaycees, and Ruritan
clubs.   There are two elementary schools-one housing
kindergarten through the second grade, and one which houses
third through the sixth grades.   There is a middle school
for seventh and eighth grades, and a high school for ninth
through twelfth grades.   The high school boasts a 70% rate
of students who go on to higher education.

The area is located in foothills surrounded by
mountains and lakes.   The climates are mild with full
enjoyment of four seasons.

The socioeconomic situation is one of disparity with
those on an upper middle to high income level contrasted
with those who have a very low income.   Many people who are
employed in this area in the various industries have very

little educational background and work assembly line jobs.

Writer's Work Setting and Role

The writer is a third grade classroom teacher in a
closed classroom setting with 25 students. The elementary
school houses approximately 420 third through sixth grade
students with 42 staff members. The staff members include
two Chapter One teachers, one self-contained special
education teacher, two special education resource teachers,
a part-time speech and language teacher, a music teacher, an
Odyssey teacher, two part-time guidance counselors, and two
physical education teachers. The administrative staff
consists of a principal and a part-time administrative
assistant.

The elementary school itself was built in the 1920's
and is in poor physical condition. The classrooms are
small, there is radiator heat, chipped paint, and improper
lighting. It is a depressed atmosphere that lends itself to
a poor working environment.

The writer's role as a teacher was to facilitate the
learning for 25 students who had a wide range of
diversities. The classroom encompassed students who were
learning disabled, slow learners, learners on grade level,
and gifted students. Instructional areas covered included a
language arts instructional block; a math block; and a block
for science, health, and/or social studies. Instructional
planning for eight subject areas occurred on a daily basis.

The slow learners in the writer's classroom were 1 1/2 grade levels behind the other students in reading. They were deficient in oral reading ability, decoding and word attack skills, vocabulary, comprehension, and study skill areas. The specific role of the writer, as it applied to the area of reading, was to attempt to remediate the above-mentioned deficiencies and spend extra classroom time providing the reinforcement to these slow learners.

CHAPTER II

STUDY OF THE PROBLEM

Problem Description

There are no programs, services, or supportive
resources given to slow learners for reinforcement and
remdiation of deficient academic study areas. No
specialized small group instruction in special education
classes occurs nor any individualization to aid and monitor
their educational progress. Resource teachers are not
employed to collaborate with the classroom teacher to plan
for the slow learners' specific needs. They fall further
behind academically as each school year passes. Of
particular concern is the subject area of reading wherein
the slow learners in the writer's class were 1 1/2 grade
levels behind the other students. Without the necessary
resources to focus extra attention on specific individual
reading weakness areas, these slow learners never had a
chance to catch up and continued to remain behind in this
subject area.

The problem has not been solved to date because of lack
of supportive resources. There are no special education
services nor resource teachers devoting attention to
providing intense intervention and remediation in the
subject area of reading to slow learners even though these
services are provided to students who are learning disabled
and emotionally disturbed. Slow learners are diagnosed and

referred back to the classroom teacher for instruction.

Unfortunately, classroom teachers also have the sole responsibility for all the other learners in their classes including those on grade level, the gifted, the behaviorially handicapped, and the mainstreamed learning disabled. There is not enough time allowed for planning the curriculum, not enough instructional time to identify and remediate the needs of the slow learners, not enough time to individually instruct each slow learner, and very little collaboration between the resource teachers and classroom teachers as to the most beneficial techniques and curriculum methods to utilize with slow learners. Therefore, classroom teachers have the sole responsibility for the curriculum, instructional methods, and reinforcement of slow learners in their classrooms.

Problem Documentation

The slow learners in the writer's classroom were not provided with special education services nor any supportive services in the regular classroom. These students were performing 1 1/2 years below grade level in reading and were scoring below the 40th percentile on the reading comprehension portion of the Iowa Test of Basic Skills. They were experiencing difficulty in all reading areas on basal unit tests and were deficient in oral reading ability.

The writer, in the role of classroom teacher, did not have time available to provide the intense one-to-one

individual attention that the slow learner needed nor did the writer have time to plan for the individual needs of the slow learner because of the number of students in the class, lack of daily planning time, and paperwork overload. There was also no time available to collaborate with the special education teachers as to the best learning environment and strategies to use with slow learners.

Since these slow learners did not receive any extra reinforcement in reading to bring them up to grade level, their self-esteem suffered, they became unmotivated, and hesitant to participate in oral reading activities.

Causative Analysis

The causes contributing to the slow learner dilemma include diagnostic problems created by identification procedures and legislative guidelines, insufficient teacher training, improper instructional methods, lack of collaboration between resource and classroom teachers, and funding issues. In addition, other influencing factors creating problems for slow learners include those common to the majority of at-risk children. These factors are apathy, low self-esteem, low socioeconomic status of the family, inappropriate family role models, and societal problems.

The specific causes in the writer's work setting which contributed to the problem being addressed include lack of time and knowledge for individualized and small group instruction for slow learners in the classroom, and very

little specific instruction and reinforcement being provided
slow learners in the area of reading deficiencies. Also
there is very little collaboration among teachers in this
elementary school setting. Teachers are in isolated
settings and have little time to individually plan, much
less collaboratively. The job descriptions and different
roles of each teacher is kept separate so therefore the
special education teachers do not communicate with nor
understand the needs of the classroom teachers and vice
versa. In addition, there is insufficient teacher training
for identification of slow learners, and for use of
instructional methods and motivational techniques to be
incorporated with slow learners. There is also a lack of
government funding for supportive resource services provided
in the regular classroom setting.

Also, societal factors play a part in the causes of the
problem being considered in the writer's setting. These
include the role and involvement of the family, the low
socioeconomic background of the slow learners, and the
apathy and low self-esteem of the students.

Relationship of the Problem to the Literature

Articles were reviewed in the literature search that
concern the problem of lack of services for slow learners.
Smith, J.E., Polloway, E. & Smith, J.D. (1978) state that
because of the groupings regulated by current federal
guidelines, slow learners have fallen into a "DMZ

(... 'Don't Mention Zone')" (p. 10). Winchell & Misek
(1991) also express concern for the exclusion of slow
learners to receive services under any special education
category and investigate barriers to slow learners receiving
a curriculum that would be most beneficial to their needs.
Slavin, Karweit, & Wasik (1992/1993) examine the risk of
underachieving third graders who have been retained and are
below grade level readers to remain in special education
classes for the remainder of their school years and not
complete high school. Finally, Bracey (1992) looks at
common difficulties shared by all at-risk students because
of societal and family problems.

Several articles reviewed document the problem and
causes of services not being provided to slow learners.
Winchell & Misek (1991) undertake a survey to measure the
sufficiency of existing programs offered to slow learners.
The curriculum setting that is viewed as the most beneficial
for slow learners is undermined by lack of funding, lack of
teacher training, and attitudes of educators. Case (1992)
believes that special education needs to be re-focused to
provide changes within the instructional setting and
intervention toward learning procedures utilized in the
classroom rather than the mere diagnosis and individualized
education interventions currently being provided. Other
influencing factors mentioned in the research documenting
the problem and causes of services not being provided to

slow learners were parental attitudes, lack of planning time afforded teachers, and classroom size.

Smith, J. E., Polloway, E. & Smith, J. D. (1978) review definitions, identification procedures, and federal guidelines which have been implemented denying slow learners access to special education services. They also provide statistics on what percentage of school age children display representative behaviors of slow learners.

One of the causes of the problem revealed as a result of the literature review is that of federal restricted guidelines disqualifying slow learners for funds. Wang, Walberg, & Reynolds (1992) state that one of the obstacles facing special education is that of categorical grouping and tracking to obtain monies. Other causes include lack of training for classroom teachers, lack of collaboration among teachers, parental and teacher attitudes, and a high number of classroom students per class. Other influencing factors are those characteristics similar to all at-risk students which are socioeconomic status, role models provided by the family, apathy, low self-esteem of the students, and societal problems.

A Phi Delta Kappa study of at-risk students found that these children not only were at risk on one category, but scored poorly on many of the 33 indicators considered. " 'Children who hurt, hurt all over. Children who fail

often fail at everything they do. Risk is pervasive' "
(Bracey, 1992, p. 116).

CHAPTER III

ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS

Goals and Expectations

The following goal and outcomes were projected for this
practicum: to provide supportive services to third grade
slow learners in the subject area of reading.

Expected Outcomes

The expected outcomes, standards of performance, and
assessment instruments which will measure achievement of the
above mentioned goal are: (1)   the instructional reading
level of each student will increase by one placement level
on the Silver Burdett & Ginn Placement Tests;   (2)   using
the Gates-MacGinitie Reading Tests to administer pre and
post tests, students will increase comprehension by 10
points on their raw scores;   (3) 3 out of 4 students on
basal unit tests 1 & 2, Level 8, will show mastery in all
areas as evidenced by their scores on the Silver Burdett &
Ginn World of Reading Unit Skills Tests,   (4)   using
structured observation, the writer will document the
voluntary participation of slow learners to read aloud
during oral reading time by noting the raising of hands over
a one week period at the beginning and end of
implementation, and the slow learners voluntary
participation to read orally will double the final week of
implementation; and (5) collaboration will increase from 0
to 3 conferences with resource teachers regarding strategy
planning and instructional materials to utilize with slow

learners, and these conferences will occur before, at
midpoint, and at the end of the implementation phase to be
documented through journal entries.

Measurement of Outcomes

The Silver Burdett Placement Tests, World of Reading
Unit Tests, and the Gates-MacGinitie Reading Comprehension
Tests were administered collaboratively by the Chapter One
resource teacher and the writer during the first and last
week of the implementation phase. They were analyzed and
provided as evidence to support expected outcomes. The
Silver Burdette Placement Tests determine grade level
placement by providing reading selections to assess the
skill areas of decoding, word study, vocabulary,
comprehension, and study skills. The conversion chart on
the student score sheet provides a critical range score of
between 60-80% which indicates an effective instructional
reading level.

The Gates-MacGinitie Reading Comprehension Tests
provide 14 reading passages to measure a student's ability
to understand what is being read. Interpretation of the raw
scores provide information as to the student's stanine
score, percentile rank, and grade equivalent level.

The Silver Burdett World of Reading Unit Tests offer
data regarding a student's strengths and weaknesses in the
reading skill areas of decoding and word study, vocabulary,
comprehension, literature, and study skills. The unit tests

correspond to a particular grade level and in this case Units 3 and 4 of Level 8 were administered which are first semester tests for the third grade.

The writer selected the unit and placement tests as measurement instruments since they correspond to the adopted Silver Burdett reading program of the county. The Gates-MacGinitie Reading Comprehension Tests were recommended by the Chapter One teacher to provide further documentation in the evaluation of the reading comprehension area.

The writer planned to observe the targeted slow learners daily during the first and last week of the action phase daily for a one week period. Voluntary participation by a show of hands to orally read was to be documented using a chart designating names, number of time hands were raised to read, and dates. These observations were to occur again at the end of the implementation phase and the data presented in the form of a chart.

Journal entries were kept daily by the writer as the action phase of the practicum was begun to note feedback from conferences with parents and resource teachers, to record comments and suggestions, and to analyze daily events.

CHAPTER IV

SOLUTION STRATEGY

Discussion and Evaluation of Possible Solutions

The problem facing the writer was the lack of
supportive services provided slow learners resulting in
reading deficiencies which the classroom teacher had sole
responsibility to remediate. Possible solutions to the
problem of servicing slow learners mentioned in the
literature consist of providing intervention at an early
stage to at risk students, individualization of services to
address the needs of each student, increased teacher
collaboration between the special education teachers and the
classroom teacher, providing teacher training classes,
reducing labeling of students, and changing funding
patterns. (Smith, J.E., Polloway, E., & Smith, J.D., 1978,
pp. 11-12) One intervention strategy discovered from a
search of the literature is an early intervention program
called Reading Recovery wherein low achieving first grade
students are provided daily individualized intensive 30
minute lessons in reading from a period of two to four
months. The pluses to this program were listed as being the
individualized instruction techniques, the daily time
periods, and the curriculum areas which focused solely on
reading and writing strategies. (Brown, 1991) Another
intervention strategy is that of the integration of special
education children into the regular classrooms which are

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taught through the collaboration of special educators and classroom teachers. (Case, 1992)

With regard to instruction of slow learners, Wang, Walberg & Reynolds (1992) report the results of research conducted by Brophy who " ... concluded that most students with special needs require additional or better instruction, not a different kind" (1992, p. 36). Other effective approaches dealing with the instruction of slow learners include assessing individual weakness areas, providing individualized pacing and frequent reinforcement, allowing students to become accountable for their own learning, and involving students in co-operative learning. (Wang, Walberg, & Reynolds, 1992) Finally; Slavin, Karweit, & Wasik (1992/1993) state that one to one tutoring proved to be the most competent strategy to incorporate for the intervention of reading deficiencies with underachieving first grade students.

Case (1992) emphasized the vital role that parents play in education and encouraged their involvement both to " ... support ... and build confidence in the effectiveness of classroom instruction" (p. 34). With specific emphasis on the home reading activities of 3 to 8 year olds, the National Center for Education Statistics released findings that only 35 percent of children ages 3 to 8 years old were read to on a daily basis by family members, and this dropped to 14 percent of those in the third grade or higher. (West,

Hausken, & Chandler, 1992) Grant (1993) stresses the importance of the home environment on the behavior of children and states that parental lack of involvement including being " ... too busy or uninterested in reading to the child regularly ... " is one problem to remedy in helping slow learners. (p. 7)

Ellis (1987) reports on the positive effects that computerized instruction provides students of " ... low aptitude and for those considered to be disadvantaged" (p. 121). Walker (1980) explores new areas wherein computers are assisting the physically impaired as well as disadvantaged children. Collins (1991) identifies some trends in schools that are using computers and states that teachers are able to assess more easily students that are experiencing difficulties, that teachers are moving away from being lecturers to facilitators of learning, that students are becoming more eager and motivated to learn, that individualization of curriculum is occurring, and that computers are providing " ... instant access to the world's accumulated knowledge ..." (p. 30). Doyle (1992) states that technology is important in transforming schools because it increases productivity, reduces costs, and boosts morale. Doyle (1992) goes on to say that we " ... can't afford <u>not</u> to use technology ... if our schools are to succeed ... " (p. 519).

Description and Justification for Solution Selected

Ideas that have been generated by the writer entailed
the use of computerized instruction to remediate basic skill
deficiencies in reading. This was a change from the use of
basal skill practice sheets and a whole language program
which were currently being implemented in the regular
classroom setting. Writer's Workshop was incorporated so
that students wrote and read their own stories orally to
their peers and parents. Resources were made available at
the school site.

Parental involvement occurred by encouraging oral home
reading, stories shared by students, and suggestions
provided on how to afford reinforcement at home. Summer
reading activities were sent home to continue parental
involvement at the end of the action phase.

Collaboration and conferences took place at the
beginning, midpoint, and at the end of the implementation
stage. The writer consulted with the special education
teacher, the reading resource teacher, parents, and
administrative personnel to share strategies, gather ideas,
and implement the solutions.

This project involved before school sessions and summer
sessions of 45 minutes three times per week using computer
hardware and software to assist in remediation of
deficiencies of the targeted group of slow learners. The
writer believed the project would be successful because of

planning among peers. the individualization of instruction,
the additional time spent outside the regular classroom in
remediation, the small group size, the use of computerized-
assisted instruction to aid in remediation, and the
involvement of parents as team players.

A log was kept of the daily activities during the
implementation phase of the practicum. These records were
assessed to remedy any problems encountered or to improve
any solution strategy.

Report of Action Taken

Before the implementation phase, the writer obtained
permission to use the computer lab at the writer's
elementary school along with approval to use reading
software available at the lab site. Also, the writer
consulted with and gained approval from the Chapter One
teacher to use Chapter One reading software to remediate
deficiencies of the targeted group. The school psychologist
and special education teacher provided resources and
literature regarding motivational and instructional
strategies that enhance the learning slow learners.

A selection process was begun, when the writer
consulted with the special education teacher and the Chapter
One resource teacher, to identify a possible subject group.
One of the students identified for possible inclusion into
the project had no transportation to and from school since
it was necessary to conduct implementation over the summer

months. A conference was held with the Chapter One teacher
to select another student new to the school who would
benefit from the project based on the percentile score of
the reading comprehension portion of the Iowa Test of Basic
Skills and based on the fact that this student would qualify
to be admitted into the Chapter One reading program the
following school year.

A 12 week calendar plan was organized by the writer
establishing steps and procedures for implementation of
solution strategies. During the first week, the writer
advised parents as to timelines, procedures, instructional
materials, and assessments to be utilized. Also pre-tests
were administered by the writer in collaboration with the
Chapter One teacher. The Silver Burdett & Ginn basal unit
skill pre-tests 3 & 4-Level 8, were administered and scored
by the writer with administration and scoring of the Gates-
MacGinitie Reading Tests and the Silver Burdett & Ginn
Placement Tests accomplished by the Chapter One resource
teacher.

Placement test results and weakness skill areas were
identified and discussed by the writer and Chapter One
teacher, and reading software selected to remediate
difficulties. Pre-tests indicated that improvement was
needed in using context clues to select proper vocabulary
words to place in sentences; in the identification of
character traits and answering comprehension questions after

silent reading of literature; and in the area of decoding
and word study skills-specifically, long word decoding,
recognition of the meaning of the prefixes -de and -dis, and
the suffixes of -ment, -ion, and -tion. Reading software
was selected to zero in on the specific reading difficulties
of the four students. Anecdotal records were begun and
journal entries made on a daily basis.

There were several drawbacks in the implementation of
the action phase of the practicum during the summer months.
The writer was unable to document voluntary participation of
the slow learner students to read aloud during oral reading
time in the classroom. Also, the physical setting was
somewhat uncomfortable since there is no air conditioning.
Furthermore, transportation had to be provided by the
parents to and from school, and the media center was closed
for the summer. The writer compensated by allowing the
students to check out books from the classroom library for
home use and by conducting sessions in the early morning
hours so as to avoid the heat as much as possible. The
writer also had to transport one student to the YMCA after
computer sessions since both parents were working.

Other roadblocks included the late arrival of two
students during the first few days of the action phase.
This was remedied by providing a daily sticker to the
students arriving on time.

Technical difficulty was also encountered with the

MECC Writer Word Processing Program not printing. The solution was to utilize the caps lock key while typing and printing.

Beginning with Week 2 of the action plan and continuing for 11 weeks, the writer implemented solution strategies with post assessment occurring the final week of the 12 week calendar plan. Computer hardware and reading software were utilized with the slow learners for a 45 minute period three times weekly. The specific reading software utilized included Reading Skillsware by Silver Burdett which correlates to the unit skill areas of the Silver Burdett basal text and covers the vocabulary skills of multiple meanings, classification, homophones, synonyms/antonyms, context clues, and analogies; and the comprehension skills of sequence, main idea/details, word referents, predicting outcomes/inference, and cause/effect; the comprehension programs of Kittens, Kids, and A Frog (for grade levels 1 & 2); and Chariots, Cougars, and Kings (for grade levels 3-5), produced by Hartley Courseware, Inc. which consists of stories " ... followed by questions requiring the child to: identify DETAILS, SEQUENCE events, PREDICT OUTCOMES, identify MAIN IDEAS, define VOCABULARY, DRAW CONCLUSIONS, MAKE JUDGMENTS, recognize CAUSE AND EFFECT and identify PRONOUNS" (Goldman, 1986, p. 1). Additional reading software utilized included Words At Work: Suffix Sense published by the Minnesota Educational Computing

Corporation which incorporates three sets of games providing practice with 10 groups of suffixes including identifying suffixes, base words, and the meanings of words containing suffixes. Also Prefix Power produced by the Minnesota Educational Computing Corporation covering identification of prefixes, base words, and meanings of words containing prefixes which also utilizes three sets of games providing practice with 10 groups of prefixes: Context Clues developed by Learning Well which reinforces meanings of words by using context clues in three phases: (a) as appearing as a definition or synonym, (b) as an antonym, and (c) using clues that imply the meaning of the word. Daily pupil logs of scores were documented for each student and any skill area not mastered was noted and a second opportunity given to repeat the game for a better score. Also during Week 2, the targeted slow learners were allowed on a daily basis to check out classroom library books for home reading with parents. Checklists were provided by the writer to parents for documentation of home reading for 15 minutes each evening.

During Weeks 3 and 4 of the calendar agenda, the writer assessed the instructional program for any weakness areas. Except for the roadblocks already noted, the writer was comfortable with the strategies being implemented, the software being utilized, and the progress being achieved.

The word processing program entitled MECC Writer
produced by the Minnesota Educational Computing Corporation
was incorporated into the action phase by the writer during
Month 2-Week 1 of implementation for composition of student
stories. This created great excitement and delight as the
students created their own stores to share with family
members (see Appendix A). Reading skill deficiencies
continued to be remediated using the reading software as
mentioned previously.

During the second week of Month 2, the writer provided
to the parents a midpoint written progress report regarding
the skill areas remediated and instructional activities
covered to date. Future action plans were furnished to
parents and collaboration occurred between the writer, the
Chapter One resource teacher, and special education teacher
to discuss strategies and results that had taken place so
far in the action phase.

During Weeks 3 and 4 of Month 2, and Weeks 1 and 2 of
Month 3 of the calendar plan, the writer continued to keep
anecdotal records on a daily basis and document pupil score
logs of specific skill areas. Reading areas needing
additional reinforcement were reported to parents by way of
a letter, and to the reading resource teacher through
documentation of the pupil logs. Post-computer activity
worksheets published by Reading Skillsware by Silver Burdett
were sent home with students for completion if the student

continued to experience difficulty after completion of the
specific skill area computer program.

Month 3-Week 3 was the last week of the action phase
and computerized instruction ended. During Month 3-Week 4.
the writer administered and scored post tests. assessed the
overall achievement of the outcomes. and evaluated the
implementation phase. A deviation from the expected
outcomes was the administration of basal unit tests 3 & 4-
Level 8 since the implementation phase occurred later than
anticipated.

Written reports were provided to the parents. the
administration. and to the Chapter One teacher as to the
results and what reading areas needed further reinforcement.
Enclosed with a letter to the parents (see Appendix B) were
reading suggestions and book lists . A final conference was
held with the reading resource teacher and the special
education teacher regarding the effectiveness of the
strategies. interpretation of test data. discussion of
unanticipated outcomes. and further recommendations.

CHAPTER V

RESULTS, DISCUSSION, AND RECOMMENDATIONS

Results

The problem in the writer's work setting was and
continues to be that slow learners are afforded no programs,
services, or supportive resources for reinforecement and
remediation of deficient academic skill areas. Specifically
in the subject area of reading, students perform 1 1/2 years
below grade level. The writer's goal was to provide
supportive services to four third grade slow learners in the
subject area of reading.

The solution strategy implemented involved meeting with
four students three times a week for a 45 minute period
utilizing computer hardware and software to remediate
reading skill deficiencies. Collaboration with the special
education and Chapter One teacher took place, as well as
oral reading activities conducted at home.

The expected outcomes and results are as follows:

Expected Outcome (1): The instructional level of each
student will increase by one placement level on the Silver
Burdett & Ginn Placement Tests.

Result (1): The placement post-test was administered
in two different fashions. The first administration
involved the students silently reading the test. Three
students scored below grade level and one scored at grade
level. The second administration involved the teacher
orally reading the passages to the students. 3 out of 4

students scored above grade level, 1 out of 4 scored below grade level on the Level 8 Placement Test, and at grade level on the Level 7 Placement Test (See Table 1). The students did not achieve a higher placement level (i.e. Level 9), however, 3 out of 4 students increased percentile points from a range of 6 to 20 points (See Table 1).

Table   1

Silver Burdett & Ginn Placement Tests - Level 8

	Pre-Test			Post-Test		
Subject	Tot. RS	PR	GL	Tot. RS	PR	GL
1	11/15	73%	at	8/15	53%	below
				*13/15	87%	above
2	11/15	73%	at	7/15	47%	below
				*14/15	93%	above
3	8/15	53%	below	4/15	27%	below
				*8/10	80%	at
4	13/15	87%	above	9/15	60%	at
				*14/15	93%	above

Note:

RS = Raw Score
PR = Percentile
GL = Grade Level

* Subject 3 was administered the level 7 placement test the second time. All students were read to for the second test.

Expected Outcome (2): Using the Gates-MacGinitie
Reading Tests to administer pre and post tests, students
will increase comprehension by 10 points on their raw
scores.

Result (2): 1 out of 4 students increased their raw
score by 10 points. 3 out of 4 students dropped by 1 to 2
points on their raw scores, but retained the same stanine
score (See Table 2).

Table   2

Gates - MacGinitie Reading Comprehension Tests

| Subject | Pre-Test | | | | Post-Test | | | |
	Tot. RS	S	PR	GE	Tot. RS	S	PR	GE
1	27	4	30	2.7	26	4	30	2.6
2	29	4	34	3.0	27	4	30	2.7
3	15	2	6	1.7	14	2	5	1.7
4	25	4	25	2.6	35	5	50	3.7

Note:

RS   =   Raw Score
S   =   Stanine Score
PR   =   Percentile Rank
GE   =   Grade Equivalent

Expected Outcome (3): 3 out of 4 students on basal
unit tests 1 & 2, Level 8, will show mastery in all areas as
evidenced by their scores on the Silver Burdett & Ginn World
of Reading Unit Skill Tests. Note: Basal unit tests 3 & 4
Level 8 were administered due to a later implementation
date.

Result (3) (of Level 3, Unit 8): 2 out of 4 students
showed mastery of all skill areas tested in Unit 3, Level 8.
2 out of 4 students mastered three skill areas but
experienced difficulty with the skill area of Decoding &
Word Study (suffixes -ment, -ion, -tion). (See Table 3).

Result (3) (of Level 4, Unit 8): 2 out of 4 students
showed mastery of all skill areas tested in Unit 4, Level 8.
2 out of 4 students mastered three skill areas, but
experienced difficulty with literature (characterization),
and decoding & word study (prefixes: de-, dis-)
respectively. (See Table 4).

Expected Outcome (4): Using structured observation,
the writer will document the voluntary participation of slow
learners to read aloud during the oral reading time by
noting the raising of hands over a one week period at the
beginning and end of implementation, and the slow learners'
voluntary participation to read orally will double the final
week of implementation.

Results (4): This outcome could not be measured since
the implementation began over the summer months.

Table   3

Silver Burdett & Ginn Level 8 - Unit 3 Skill Test

	Pre-Test				Post-Test			
Subject	Tot. RS	PR	SA	RS	Tot. RS	PR	SA	RS
1	19/30	63%	Voc.	10/15	29/30	97%	Voc.	15/15
			Comp.	4/15			Comp.	5/5
			*D.W.S.	0/5			D.W.S.	4/5
			Stud.	5/5			Stud.	5/5
2	24/30	80%	Voc.	12/15	28/30	93%	Voc.	15/15
			Comp.	5/5			Comp.	5/5
			*D.W.S.	2/5			*D.W.S.	3/5
			Stud.	5/5			Stud.	5/5
3	23/30	77%	Voc.	11/15	22/30	73%	Voc.	12/15
			Comp.	4/5			Comp.	5/5
			D.W.S.	4/5			*D.W.S.	1/5
			Stud.	4/5			Stud.	4/5
4	26/30	87%	*Voc.	11/15	27/30	90%	Voc.	13/15
			Comp.	5/5			Comp.	5/5
			D.W.S.	5/5			D.W.S.	5/5
			Stud.	5/5			Stud.	4/5

Note:

Tot. RS	= Total Raw Score	Voc.	= Vocabulary
RS	= Raw Score	Comp.	= Comprehension
PR	= Percentile Rank	D.W.S.	= Decoding & Word Study
SA	= Skill Area	Stud.	= Study Skills
*	= Non-Mastery Area		

Table 4

Silver Burdett & Ginn Level 8 - Unit 4 Skill Test

Subject	Tot. RS	PR	SA	RS	Tot. RS	PR	SA	RS
	Pre-Test				**Post-Test**			
1	15/30	50%	*Voc.	10/15	26/30	87%	Voc.	13/15
			*Comp.	2/5			Comp.	4/5
			*Lit.	2/5			Lit.	4/5
			*D.W.S.	1/5			D.W.S.	5/5
2	26/30	87%	Voc.	13/15	28/30	93%	Voc.	14/15
			Comp.	5/5			Comp.	5/5
			Lit.	5/5			Lit.	5/5
			*D.W.S.	3/5			D.W.S.	4/5
3	21/30	70%	Voc.	9/15	28/30	93%	Voc.	15/15
			Comp.	5/5			Comp.	5/5
			*Lit.	2/5			*Lit.	3/5
			D.W.S.	5/5			D.W.S.	5/5
4	25/30	83%	Voc.	12/15	26/30	87%	Voc.	13/15
			Comp.	5/5			Comp.	5/5
			Lit.	5/5			Lit.	5/5
			*D.W.S.	3/5			*D.W.S.	3/5

Note:

Tot. RS	= Total Raw Score	Voc.	= Vocabulary
RS	= Raw Score	Comp.	= Comprehension
PR	= Percentile Rank	Lit.	= Literature
SA	= Skill Area	D.W.S.	= Decoding & Word Study
*	= Non-Mastery Area		

Expected Outcome (5): Collaboration will increase from 0 to 3 conferences with resource teachers regarding strategy planning and instructional materials to utilize with slow learners, and these conferences will occur before, at midpoint, and at the end of the implementation phase to be documented by journal entries.

Results (5): The writer did collaborate with the special education and Chapter One teachers before, at midpoint, and at the conclusion of the implementation period.

Discussion

The writer feels that expectations were placed too high on the Silver Burdett & Ginn Placement Tests. Actual placement levels did not increase, (from a Level 8, which is a 3-1 reader, to a Level 9 which is a 3-2 reader). However, percentage points increased substantially in 3 out of 4 cases. It is also significant to note that when the teacher read the stories to the students scores soared much higher than when the students silently read.

The results of the Gates-MacGinitie Reading Comprehension Tests showed that 1 out of 4 students achieved a 10 point increase in the raw score. The writer feels that although reading comprehension is the most difficult reading area to increase scores, the action phase was not a sufficient period of time to dramatically affect comprehension scores.

The students showed the greatest progress on the Silver Burdett & Ginn Level 8-Units 3 & 4 skill tests. Even though the slow learners mastered all skills on both units 3 & 4, the breakdown of raw scores on the specific skill areas indicate that the students increased raw scores in eight skill areas on the Level 8-Unit 3 test, and nine skill areas on the Level 8-Unit 4 test.

On the pre-test of Level 8-Unit 3 there were a total of three skill areas showing non-mastery as opposed to two skill areas on the post-test. Eight skill areas were not mastered by the students on the Level 8-Unit 4 pre-test as opposed to two skill areas showing non-mastery on the post-test.

Collaboration with the resource teachers and parents proved very successful and the self-esteem and confidence of the children seemed to increas· each session as they became familiar with using the computer and tallying their scores.

Unanticipated outcomes began immediately as the writer was not expecting the students to display such excitement and enthusiasm in attending a "summer school". Their enthusiasm contributed greatly in helping convince the parents to allow them to participate. Other students overhearing the writer's conversations with the subject group asked if they could "volunteer" to participate as well. Also the parents were very thankful and supportive, and aided in returning the home reading checklists and in

transporting their children to and from school.

The stickers worked wonders with the children arriving to sessions on time. It was an effective behavior modification strategy to the point where one student even woke his father up to bring him to class.

The students were especially excited to learn and use the MECC word processing program to create their own stories. They became very much at ease with using computer hardware and software to the point of being able to retrieve their own scores from the teacher's menus for the writer to document on the pupil logs. Simple basic skills had to be emphasized during the first encounter with the MECC program. The students had to be taught not to press the Return key at the end of a sentence. to press the space bar between words, and also had to be taught how to delete words.

Even though the students were informed that no grades would be taken, on one occasion a student did report a wrong score on one of the scores. To the writer this reinforces the idea of too much competition and emphasis on grading rather than on the learning process.

The slow learners have recently begun the fourth grade and have been by to visit the writer daily in the afternoons since school began. This leads the writer to believe that self-esteem was increased among the students and the project played a role in establishing a true bond between the writer and the slow learners.

In summary, the writer feels the action phase of the practicum recognized on a very small level the needs of the slow learner, increased students' participation in the learning process, and played a positive role in influencing the parents-teacher relationship. Collaboration with other teachers went beyond just "job descriptions" to a development of mutual respect, trust, and value for the services provided by others.

Reading skill areas were increased in many areas plus the writer feels with the sessions being conducted during the summer months, retention of skills will carry over to the beginning of the new school year.

Recommendations

Since it was noted that students achieved higher scores on the placement tests when the stories were read orally to them, the writer recommends that further studies be conducted to determine if the students are auditory learners. A suggestion has been made to the Chapter One teacher and to the students' fourth grade teachers to remediate and reinforce visual skill areas and silent reading comprehension.

The writer recommended to subject 3's current teacher and to the special education teacher to monitor progress for a possible learning disability since performance is currently in a Level 7, 2-2 reader and grade level should be Level 10.

The writer also suggests that others extend the implementation time period, to become thoroughly familiar with the hardware and software being used (i.e. when the Caps Lock key needs to be down to run or print a program), and to choose either specific skill areas in reading or focus on only reading comprehension to improve. Therefore assessment would consist of examination of specific skill area results and percentage increases on unit basal tests, or would focus on increasing the various components of reading comprehension. The writer would also suggest that a larger time block per session be incorporated especially when utilizing the MECC word processing program since it takes some time to create and print stories.

The solutions achieved with the slow learners over the summer months will be carried over this school year in the writer's classroom with other slow learners and learning disability students. Each classroom this school year was equipped with a computer and software so that deficient areas can be remediated and reinforced in the regular classroom setting.

Dissemination

As noted earlier, dissemination of the practicum results have been provided to the parents of the study group, the principal, the special education teacher and the Chapter One resource teacher; and suggestions for further remediation given to the fourth grade teachers of the

slow learners. Also a copy of the final report will be
housed in the school media center.

Since the slow learners scored higher on the Silver
Burdett & Ginn Placement Tests when the writer orally read
the passages to them, the Chapter One teacher and fourth
grade teachers are utilizing the information to
individualize lessons and administer tests in an auditory
manner, and to provide experiences to develop silent reading
comprehension. In addition, they are continuing instruction
through computer software to remediate any deficient skill
areas still needing improvement.

The special education teacher and the writer are
currently implementing a collaborative class in reading and
language as there are six special education children
in the writer's third grade classroom.

The parents and students participating in the practicum
problem solving activity were very thankful and
appreciative. The students and parents continue to visit
the writer's classroom on a regular basis. Perhaps the
recent comment of one of the four students, (now in the
fourth grade), sums it up best when stated "I wish I was
back in the third grade."

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APPENDIX A

Student stories created on the MECC Writer

HI MY NAME IS TYRONE. I FIND SNAKES EVERY SUMMER. I FIND BLACK SNAKE
THAT WIGGLE TURN AND IS LARGE. THE SNAKE HAVE ROUGH SCALE. THEN THE
SNAKE WENT SZZ. I HAVE SEEN A FEMALE SNAKE THAT MOVE CAZY.

HI MY NAME IS TYRONE. I GET KITES FOR MARCH. THEN I FLY THE KITES
WAY IN THE SKY. MY KITE IS RED SMOOTH. THE SOUND IS RUFF. I FLY MY
KITE WHEN THE WIND BLOW FAST AND HARD. MY KITES SHAPE IS SQUARD.MY
KITE MOVE FAST WHEN THE WIND BLOW. THEN WHEN THE WIND STOP BLOWING MY
KITE GO UP AND DOWN.

ONE DAY ME AND MY FRIND WANTED TO GO TO THE POOL.MY MOM SAID THAT WE
COULD.FIRST WE GOT ARE STUFF TOGETHER.SECOND WE GOT READY.THEN WE GOT
IN THE CAR AND DROVE OFF.WHEN WE GOT THERE WE GOT IN THE POOL.THEN WE
GOT HUNGREY SO MOM TOLD US THAT WE COULD GO AND GET SOMETHING.SO WE
WENT AND GOT SOMETHING.THEN AFTER WE GOT SOMETHING WE GOT BACK IN THE
POOL.THEN WE WANTED TO GO TO THE PLAYGROND.BUT BEFORE WE WENT TO THE
PLAYGROND WE HAD TO GET A BRACELET FOR WE COULD COME BACK IN
THERE.THEN WE WENT TO THE PLAYGROUND.WE CAME BACK WE SHOWED ARE
BRACELETS TO THEM.THEN WE WENT BACK IN THERE AND GOT BACK IN THE
POOL.WE JUST SWIMED THE REST OF THE TIME.THEN WE GOT BACK IN THE CAR
AND DROVE HOME JENNIFER AND ME PLAYED THEN IT WAS TIME TO GO TO
SLEEP.SHE SPEND THE NIGHT WITH ME.

HI MY NAME IS BRANDON THIS SUMMER ! IAM WORKING WIHT MT
TECHER CLASSSMATS MY MOM TAKS ME TO THE PLASE THIS
SUMMER I WHENT TO PARANOUNT CAROWINDS JUNE 12 1993 I WENT
SWMMING I WENT TO MY GRANDMAS HOUES AND I PLAYED BASEBALL AND
IAM SHOT FIERWOKS THIS WEEKEENDME ME AND MY MY DAD AND MY
SISTER GONING FISHING BY BY

APPENDIX B

Letter to parents

DEAR PARENTS,

WE ARE AT THE CONCLUSION OF OUR READING SKILL AREAS PROGRAM USING THE COMPUTERS. I HAVE THOROUGHLY ENJOYED WORKING WITH EACH AND EVERY STUDENT AND I AM SURE THAT READING SKILLS HAVE BEEN STRENGTHENED BY OUR MEETINGS. I SINCERELY APPRECIATE YOUR EFFORT IN MAKING SURE THAT YOUR CHILD HAS BEEN IN ATTENDANCE AND WITH TRANSPORTING YOUR CHILD TO AND FROM SCHOOL OVER THESE SUMMER MONTHS.

I AM ENCLOSING SOME READING ACTIVITIES THAT YOU CAN ENGAGE IN OVER THE REMAINDER OF THE SUMMER MONTHS. AT THE END OF THIS MONTH YOU WILL BE RECEIVING SOME ADDITIONAL INFORMATION ON THE PROGRESS THAT YOUR CHILD MADE AND ANY SUGGESTIONS FOR FURTHER REMEDIATION.

I WOULD ASK THAT YOU SEND IN THE READING ORAL ACTIVITY SHEETS SIGNED THAT INDICATE ANY READING THAT TOOK PLACE AT HOME. ALSO PLEASE RETURN THE BOOKS SENT HOME WITH THE STUDENTS THAT I HAD THEM SELECT FOR HOME READING.

WE WILL BE GOING TO PIZZA HUT IN ALTAVISTA AROUND 11:00 A.M. ON FRIDAY. WE WILL WORK IN THE COMPUTER LAB AT SCHOOL UNTIL THEN. I WOULD ASK THAT YOU PICK UP YOUR CHILD AT 12:00 NOON FROM THE PIZZA HUT.

AGAIN THANK YOU FOR YOUR HELP. HAVE A SAFE AND RESTFUL, ENJOYABLE REST OF THE SUMMER.

SINCERELY,

DEBBIE SHELTON

ENCLOSURE: SUMMER READING IDEAS