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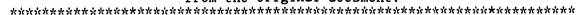   Secondary Education; *Intervention; *Learning
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ABSTRACT
        This booklet brings together one-page to two-page
abstracts from research poster sessions held at a conference on
learning disabilities. The 17 research abstracts are presented within
four poster session categories: (1) research on assessment and
characteristics of students with learning disabilities (with
abstracts on handwriting, mainstreaming students with dyslexia, and
executive functioning and phonological processing in attention
deficit hyperactivity disorder and reading disability); (2) research
on adolescents and adults with learning disabilities (with abstracts
on prevention of sexual abuse, depression and anxiety in college
students and rehabilitation clients, college programs, and prediction
of university academic achievement); (3) research on instruction and
treatment (with abstracts on language intervention with preschool
children, alternative delivery systems, prevocational training,
teaching language functions through the fine arts, biofeedback as a
treatment for attention deficit disorders, and technological
applications); and (4) a second session dealing with research on
instruction and treatment (with abstracts on promising programs,
university and public school partnerships, classwide peer tutoring,
and improving reading comprehension and writing through content
classes). (JDD)

LDA '94

A Capital IDEA

Learning Disabilities Association
of America
International Conference
Washington, D.C.
March 16-19, 1994

POSTER SESSION ABSTRACTS

compiled by

Steven C. Russell, Ph.D.

LDA

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This portion of the yearly LDA conference, the **Research Poster Sessions**, has become anticipated eagerly by conference attendees interested in the most recent research related to individuals with learning disabilities. This format allows for the exchange of information through both formal (availability of abstracts and display of posters) and informal (discussion with the presenter(s)) means.

This year we continue another means of sharing the results of research. At the request of previous research poster presenters, and conference attendees, submitted abstracts have been compiled in the following booklet. As this format increases in acceptance, it is hoped that future volumes will include an abstract from each research poster session scheduled for the conference.

Thanks to all who took this opportunity to share their abstracts.

S. C. R.
February, 1994

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Learning Disabilities Association
of America
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Washington, D.C.
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Research Poster Session Abstracts
Volume 3
compiled by Steven C. Russell

*Poster Session #1: Research on Assessment and Characteristics of
Students with Learning Disabilities*

*Poster Session #2: Research on Adolescents and Adults with Learning
Disabilities*

Poster Session #3: Research on Instruction and Treatment

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Legibility of Third-Grade Handwriting:
D'Nealian Handwriting Versus Traditional Zaner-Bloser

RESEARCH PROBLEM AND PROCEDURE

Statement of the Problem

Third graders demonstrated difficulty and illegible writing
when they made the transition from manuscript printing to
traditional Zaner-Bloser cursive writing. The D'Nealian
manuscript style is more like the cursive letter formations
which may make the transition from printing to legible cursive
writing easier for third graders.

This study hypothesized that samples of handwriting written
by third graders in the D'Nealian handwriting cursive style
would be more legible than Zaner-Bloser traditional handwriting
samples. It was expected that other teachers and administrators
in the Kewaskum School District would also judge D'Nealian
handwriting to be more legible than traditional Zaner-Bloser
handwriting. The Zaner-Bloser traditional style of printing
uses circle-and-stick formations for manuscript letters. The
child must then make a transition from manuscript letters to
flowing cursive letters and capitals embellished with loops.

Rationale

An initial look at the literature showed that Donald N. Thurber
(1978), author of the D'Nealian Handwriting Program, felt "It's
a program in which the inconsistencies and illogic of most
traditional handwriting methods are eliminated. It involves
a unique, lower-case manuscript alphabet that is very easy to
write and that leads into cursive writing with virtually no
trouble at all". Thurber stressed legibility, using the criter-
ia that "teachers look for consistent slant, size, and spacing
in each child's writing". Dale Jordan (1978), advisor to the
D'Nealian Handwriting Program, stated, "Every letter but five
is made with a continuous stroke, eliminating pencil lifts...
rhythm is built in....In addition, the program recognizes the
individuality of handwriting".

Data Collection and Analysis

The legibility of the two hand-
writing styles was evaluated using samples of the students' hand-
writing. Minimum standards in form, size, and slant were used
in evaluating to allow flexibility for individual differences.

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Procedures
This project was an experimental evaluation of D'Nealian
Handwriting in the third grade. The subjects were forty-five,
eight-and nine-year-old, male and female students in the Kewaskum
third grade. The subjects were all English-speaking Caucasians
of lower-to middle-class socioeconomic levels, who were residents
in the Kewaskum,Wisconsin School District, attending Kewaskum
Elementary School.

Two Kewaskum Elementary second-grade teachers divided the forty-
five students into two third-grade classes with even boy/girl
enrollment, according to their achievement test scores, reading
ability, behavior, work habits, and peskiness.

In all areas evaluated - overall legibility, letter formation,
letter slant, and letter size - the D'Nealian style of
handwriting was assessed to be 9 percent to 29 percent more
acceptable than Zaner-Bloser handwriting.

		Acceptable	Poor
Zaner-Bloser	letter formation	53%	47%
D'Nealian	letter formation	82%	18%
Zaner-Bloser	letter slant	71%	29%
D'Nealian	letter slant	83%	17%
Zaner-Bloser	letter size	55%	45%
D'Nealian	letter size	64%	36%
Zaner-Bloser	legibility	75%	25%
D'Nealian	legibility	86%	14%

Conclusions
In conclusion, the researcher feels her study showed samples
of handwriting written by third graders in the D'Nealian hand-
writing cursive style were more legible than Zaner-Bloser
traditional handwriting samples. One reason for the D'Nealian
samples being judged more legible is the simplified letter forms.
The D'Nealian cursive letter forms are less embellished than
the Zaner-Bloser letter forms, making D'Nealian letters easier
to learn and more legible to read. The researcher found less
instructional time was needed to teach the letter forms and
more time was available to the student to write and practice
writing, with the teacher giving individual help when needed.

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Donald N. Thurber. Glenview,IL:Scott, Foresman.

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Identifying and Teaching Children with Mild to Moderate Dyslexia in Mainstream Education

Through the advocacy of parents and others, we have had special education programs for severely reading disabled (i.e., dyslexic) students for many years. However, more recently it has been recognized that mild and moderate forms of reading disability can jeopardize a student's education and that a moderate disability is very likely to result in a serious reading disability if left unattended in the early elementary grades. This realization has resulted in legislation in at least two states (Texas and Louisiana) that requires school districts to identify such students and provide appropriate instruction. The program described in this poster session was developed in collaboration with the El Paso (TX) Independent School District to satisfy the requirements of this legislation.

Identifying Students with Reading Problems Due to Dyslexia

Students are referred by their teachers, screened, and re-evaluated annually with the *Decoding Skills Test* (DST) (Richardson & DiBenedetto, 1985) which has demonstrated reliability and validity for research on developmental dyslexia (Richardson, 1985). The DST provides a criterion-referenced score profile that reports a student's word recognition ability in terms of grade equivalents, and it characterizes the student's use of letter sounds and spelling patterns in word recognition. An objective system of points is used to qualify students for the program and to form the basis for program exiting decisions following an annual evaluation with the DST.

Teaching Students with Reading Problems Due to Dyslexia

The teaching program is the Integrated Skills Method (ISM), first described in the *Journal of Learning Disabilities* in 1975 (Richardson & Bradley, 1975) and refined through research for over 15 years (Richardson & DiBenedetto, 1991). The ISM incorporates a variety of program materials and focuses on the teacher as the vehicle for reading instruction. The ISM is based on an instructional model that integrates whole language, phonic/linguistic, and sight-word methods of reading instruction. Across the past six years, more than 1,000 teachers have been trained to use the ISM and they have taught several thousand students who have been identified as having mild to moderate dyslexia.

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Figure 1. DST Instructional Level Grade Equivalent (i.e., word recognition) scores of students at baseline and following one, two, and three years of program intervention.

Evaluating Student Achievement

Results on the DST's criterion-referenced grade equivalent score on word recognition demonstrate the importance of early identification and intervention (see Figure 1). Group 1 students, identified at the end of first grade (circles in the figure), scored about six month higher in second grade than did Group 2 students who were first identified in second grade (squares in the figure). Moreover, Group 2 scored about six month higher that did Group 3 who were first identified in third grade year (triangles in the figure). Thus, after three years in the program, all three groups scored at about the same level in word recognition. However, Group 1 (in fourth grade after three years in the program) had a deficit of only a few months, while Group 2 (then in fifth grade) had a deficit of more than a year, and Group 3 (then in sixth grade) had a deficit of more than two years.

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Executive Functioning and Phonological Processing:
Evaluation of the Co-morbidity in ADHD and Reading Disability

INTRODUCTION: It is well-known that there is considerable overlap in the population of children with Attention Deficit Disorder (ADD) and Specific Reading Disability (SRD). Our previous studies of 100 children referred clinically for suspected ADHD suggested a large (50%) proportion of such children meeting public school discrepancy criteria for Specific Learning Disabilities placement, most frequently SRD. Such co-morbidity has led to speculation about whether ADD and SRD are separate disorders with differing etiology, or whether the frequent co-occurrence represents different expression of the same underlying CNS dysfunction. Years of research based on use of the current DSM-III-R unidimentional classification of ADHD has obscured both known behavioral differences, as well as possibly different etiologies, in ADD children with (ADD+H) and without (ADD-H) hyperactivity. The specific aim of this research is to study relatively homogeneous subtypes of ADD and/or RD children with regard to two broad areas believed to reflect underlying core deficits in these heterogeneous groups: phonological processing and/or rapid naming deficits in RD children, and deficits in executive functioning in ADD children. Although such deficits have been assumed to characterize relatively "pure" groups, rigorous investigation of well-characterized mixed subgroups is needed.

SUBJECTS: These data represent results from a subset of children involved in a larger study. 90 children, 65 males and 25 females, ages 8 - 12 (M = 10.40), with WISC-III FSIQ $\geq$ 85 (M = 105.99) were classified into the following groups: 1) ADD+H (n=22); 2) ADD-H (n=13); 3) Combined ADD (collapsed with respect to presence of hyperactivity) with SRD (n=27); 4) Normally achieving controls (n=28).[1] ADD classification was made on the basis of agreement on two objective teacher rating scales (CAP Scale from the Achenbach CBC; ACTeRS Scales); SRD classification was made on the basis of single word recognition standard score $\leq$ 80 and a $\geq$ 1.5 SD discrepancy between FSIQ and Woodcock-Johnson Word Identification subtest standard score.

PROCEDURES: All subjects were administered the following protocol:

Measures of Attention: 1) Restricted Academic Situation (Coded Behavioral Observation); and 2) Gordon Diagnostic System (GDS) Continuous Performance Test (Tests of Vigilance and Distractibility) as part of a larger battery to assess executive functioning.

Measures of Phonological Processing/Rapid Naming: 1) Test of Auditory Analysis; 2) Lindamood Auditory Conceptualization Test (LAC); 3) Boston Naming Test; 4) Benton Word Fluency Test; and 5) Rapid Automatic Naming Tests (RAN) as part of a larger battery to assess auditory-linguistic and word decoding skills.

RESULTS: Preliminary analyses were performed to determine group homogeneity with regard to gender, age, and FSIQ. The age range (8 - 12 years) selected for study was relatively homogeneous; consequently, mean ages did not differ across groups. While groups did not have

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[1] Note: Subjects are continuing to be recruited for three more homogeneous groups: a pure RD group, and two combined groups, ADD+H+RD and ADD-H+RD.

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equal numbers of males and females, the proportions of males to females did not differ across groups (2½:1, a ratio similar to reported incidence of ADD and SRD). Finally, simple one-way ANOVA confirmed a small, but significant group effect for WISC-III FSIQ, with a post-hoc analysis confirming that the control group IQ (M = 111.37) was higher than that of the combined ADD/SRD group (M = 98.30). While the SRD group by definition was far below the other groups in word recognition (M SS = 74.67), the ADD+H group was poorer than the control group, and the control and ADD-H groups did not differ from one other. Subsequent analyses included a series of 3-way ANCOVAs (Group X Age X Gender), using FSIQ as covariate. The following summary of results pertain only to group main effects.

With regard to the attentional battery, group differences were found across two of five coded areas of behavior. The control group demonstrated fewer "Off Task" and "Fidgeting" behaviors, while the three clinical groups did not differ from each other. On laboratory measures of vigilance and distractibility, number of correct responses, as well as two types of errors (Omission and Commission) were recorded. On the simple Vigilance task, the ADD+H and Combined ADD/SRD groups had fewer correct responses than the ADD-H and Control groups, with the Combined ADD'RD group showing a higher rate of both Omission and Commission errors than the other groups. On the more challenging Distractibility task, the ADD-H and Control groups were both superior to the ADD+H and Combined ADD/SRD group in correct selections and in a fewer number of Omission errors. On this task all clinical groups made more Commission errors that control subjects.

With regard to the phonological and naming tasks, analyses indicated significant group effects across all measures. On the Test of Auditory Analysis, LAC, Benton Word Fluency, and Boston Naming Test, the Combined ADD/SRD group performed significantly more poorly than subjects in the other groups, who did not differ from one another. While there were no group differences in number of errors on the Rapid Automatic Naming Tests (RAN), all clinical groups showed longer latencies than the Control group, and both ADD groups were superior to the Combined ADD/SRD group.

PRELIMINARY CONCLUSIONS: While those tasks involving phoneme analysis and sequencing clearly distinguished the ADD/SRD group from the two ADD subtypes, the presence of ADD (with or without hyperactivity) appeared to reduce naming latency, suggesting that disruptions in attention/concentration reduces performance on some measures requiring automaticity. Of further interest was that performance of the Combined ADD/SRD group frequently was more impaired on attention tasks than either ADD group without SRD. Clearly the combined ADD/SRD group is quite heterogeneous, but results suggest that the impaired attention may be more severe in children with co-occurring reading disability. Such potentially quite inte-resting results are being further explored by recruiting a group of "pure" reading disabled children (e.g. who do not also meet ADD classification by teachers' ratings). Our difficulty in obtaining these children suggests at least indirect evidence for "Secondary ADD" in severely reading dis-abled children. We are further studying this hypothesis with more biologically-based measures (cortical evoked potentials) in an attempt to validate these behaviorally derived subgroups of children.

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Teaching the Prevention of Sexual Abuse to Young Adults with Learning Disabilities

Young adults with learning disabilities are at high risk for sexual abuse. The purpose of this presentation is to alert professionals, parents and individuals with learning disabilities of the increased vulnerability and ways in which that can be mitigated.

The session will include discussion of a course that was developed at New York University's Para Educator Center that teaches prevention from exploitation. The results of a research study will be discussed that evaluated the effects of the unique course using a video presentation of possible abusive situations and allowed for responses to them from treatment and control groups. These situations included a young woman on a date, innapropriate behavior of a job supervisor, and meeting a stranger.

In most cases of sexual abuse, the perpetrator is known to the victim. Changes in our educational practices, such as inclusion, expose students with disabilities to a wider population than they had known previously, thus increasing their vulnerability. Students with disabilities must learn to protect themselves; they must learn to distinguish between real affection and desired affection that could ultimatly be exploitive.

Professionals will have the opportunity to learn about the course that was developed that utilizes a special approach to help teach the important concepts while also helping to empower the students to make good decisions and to accept the consequences of their actions.

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An Examinatio. of Depression and Anxiety Across College
Students Wit.1 and Without Learning Disabilities and
Rehabilitation Clients with Learning Disabilities

Postsecondary issues facing adults making the transition
from secondary institutions include initiating and maintaining
employment, pursuing postsecondary education, adjusting to social
and community structure, and adapting to living independently.
For many adults with a learning disability, these choices become
barriers in the attempt for such individuals to increase the
control they have over their own lives.

In a series of studies investigating the social-emotional
adjustment of adults with learning disabilities at a university
and a rehcbilitation setting, Gregg, Hoy, King, Moreland, and
Jagota (1992a; 1992b) identified that a common characteristic of
both groups was a high degree of anxiety, similar to post
traumatic stress. Thus, while many adults with a learning
disability in a postsecondary setting may appear to demonstrate
appropriate social skills, internal personality problems may be
impacting significantly on their daily living.

Those with a learning disability who seek services from
state rehabilitation agencies and/or college and university
support programs present a challenge to professionals attempting
to identify effective academic. vocational. and social-emotional
interventions which will lead to long-term successful employment.

The purpose of this study was to compare the responses of
young adults on measures designed to assess depression and
anxiety. This information will add to the small body of
empirical research pertaining to the social-emotional profile(s)
of the heterogeneous population of adults with learning
disabilities. The identification of these affective variables
should be considered in transitional and postsecondary program

planning. A second purpose of the study was to investigate tools which will reliably identify depression and anxiety in adults witn a learning disability.

Three groups of young adults participated in this study. One group of 140 university students did not have any documented learning disability. The second group of university students (n=184) all had a documented learning disability. Likewise, the third group of subjects (n=57) all had documented learning disabilities and were receiving services in a residential rehabilitation setting.

The instruments used to examine depression and anxiety across the three groups were the Beck Depression Inventory, State-Trait Anxiety Inventory-Form Y, and IPAT Anxiety Scale Questionnaire. The three measures were administered to all subjects in a random order.

The findings suggest the females at the rehabilitation setting experienced a significantly greater level of depression than their male counterpart and the other two groups of University students. The findings from this research also demonstrated that young adults with learning disabilities attending the University were re~orting significantly greater levels of state and trait anxiety than either the Rehabilitation clients or the University students without a learning disability.

The findings from this study would suggest further research is needed in examining the issue of gender differences related to depression variables among adult females with a learning disability. Traditionally, issues focusing on women with disabilities have largely been ignored in the literature.

Another important implication emanating from this study pertains to the services needs of adults with a learning disability. It would be accurate to hypothesize that many adults with a learning disability could benefit from access to individualized interventions directed at anxiety reduction. Some previous research has grouped adults with a learning disability into categories of "successful" and "unsuccessful" categories through external standards established by the investigators. These researchers have surmised that the "successful" adults with a learning disability have developed a variety of coping and stress reduction strategies that are not always apparent to the "unsuccessful" adult with a learning disability. The possibility that many "successful" adults internalize their anxiety to appear "calm and together" to their external world warrants availability of services to help them reduce their anxiety.

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Transitions: A Practical Program For College Students with Learning Disabilities

The session, Transitions: A Practical Program For College Students with Learning Disabilities, will aid students with learning disabilities, their parents and professionals in preparing for the necessary transitions that come in moving from college to the world of work. By increasing awareness on this topic, professionals can help the student with learning disabilities prepare for independence and a smooth transition to the world of work.

This program centers on the culminating skills development necessary for an efficient college to career transition. Without this necessary skill development the student with a learning disability can be left out of an increasingly competitive job market. The general characteristics of learning disabilities and the increased importance of job transition skills make developing an intervention for this population a necessity.

This session will focus attention on the developmental lags of the student with learning disabilities. Specifically, the following issues will be addressed as they relate to the college student with learning disabilities: resume development, job hunting strategies, interviewing skills, job maintenance, external and internal transitions, and personal survival strategies. Although these transitions can be difficult for any student, they are particularly overwhelming for the student with learning disabilities. This program will provide the professional and the parent with the knowledge and resources needed to assist with these transitions.

Participants in this session will garner a greater awareness of college students with learning disabilities and their needs as they relate to their college to career transition. The session's structure will include descriptive posters on the characteristics of learning disabilities and the needs of these students in their final year of college.

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Prediction of University Academic Achievement from Admission Criteria

Students with learning disabilities are applying to universities in increasing numbers creating dilemmas for university admission officers. The purpose of this study is to determine whether the typical admission criteria of universities is significant in predicting academic success for students with learning disabilities. These findings represent the significance of Scholastic Aptitude Test/American College Testing Scores, High School Grade Point Average (both cumulative and academic), and any type of academic deficiency in predicting academic success after the first and second semesters as well as the cumulative grade point average after more than two semesters of university classes. Results of this study will support which, if any of the typical admission criteria, are significant predictors of academic success for students with learning disabilities in a large university setting.

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L.I.S.S.P.P.

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South Euclid-Lyndhurst City Schools   South Euclid-Lynd.
                                                                City Schools

This three year old summer grant program for communicatively handicapped children originally stemmed from a need to help provide services to children who were "at risk". After the first year, the South Euclid-Lyndhurst Schools and its preschool liaison coordinator were beginning to identify many children who qualified as handicapped under the Preschool Rules.

Prior to 1989, the South Euclid-Lyndhurst School District did not offer speech-language services to preschoolers. In order to provide intervention for these children, a grant through the Ohio Division of Early Childhood Education was applied for and received.

The Speech Language Pathologist served as classroom teacher, director and supervisor of the program. The L.I.S.S.P.P. was held three mornings per week from 9:00 - 11:00 a.m. and was staffed by three Speech Language Pathology interns from Cleveland State University, one SLP coordinator and one SLP director/teacher. The team staffed the children daily.

Eighteen, three, four and five year olds who previously received multifactored evaluations, were divided into four groups supervised by an SLP intern team leader, who was responsible for establishing goals, implementing individual and small group instruction and reinforcing target skills. Parents attended an orientation meeting and received an informational update at a meeting scheduled during the midway point of the program. Progress reports were sent home and to the receiving school at the end of the program.

Traditional therapy techniques as well as language experiences in a natural, environmental framework combined for optimum results. Parents responded to survey questionnaires at the conclusion of the program. This successful program will begin its fourth summer in June, 1993.

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Alternative Delivery Systems for Serving Students in
Special Education and General Education Classrooms:
Four Experimental Models

The Regular Education Initiative written in 1986 by Madeline Will
started a cry for restructuring special education for a variety of
reasons. One primary reason is to encourage collaborative efforts
between regular and special educators serving mildly handicapped
children. Ohio has been gathering data on four experimental service
delivery models initiated Fall, 1991 extending to June, 1993. A
survey was sent to 70 of the experimental model teachers representing
twenty-six different school districts in Ohio. The major questions
asked in this survey are listed below with responses to questions
three and five.

        Questions Posed to the Experimental Model Teachers:
1.   What would be the greatest service provided by the consult/
      collaboration teachers?
2.   Briefly describe the structure of your program and how it is
      different from how students had been served under the
      traditional model.
3.   How have the students responded to the changes in programming?
      How have students changed toward your role?
4.   What is your daily schedule and do you still have the same
      duties that you would without change in programming?
5.   Are you enjoying the newly designed program?
6.   Were you reluctant to be involved at first? If so, why?
7.   What do you hope to accomplish with the children and the
      teachers in this program?

3.   How have the students responded to the changes in programming?
      How have they changed to your role?
          POSITIVE COMMENTS
Like being in the regular group but still need support from
   LD teacher
More motivated
Better performance
Seen as a "real teacher" for the first time in 16 years
Rarely tell me they are "dumb" anymore
Behavior improved
Willing to ask for help
More interested
More relaxed
Better work habits
More aware of expectations
Like having two teachers

Great changes, excited, socially making new friends
LD and DH learning life skills and study skills
One unified body
All boys feel accepted in regular class and do not feel
  different
Outlook more pluralistic or integrated
Children enjoy traveling from class in high school
Show pride in what they are doing
Learned helplessness and dependence on resource teacher
  diminishing
Love to "shine" in the regular class
     NEGATIVE COMMENTS
Some feel "entitled" to leave for extra help
Cutbacks in special education teachers time, makes us question
Some reluctant, want small group in resource room
Same duties plus collaboration equal overwhelm
Some fear voiced by parents, afraid of their child being in
  reg. class full
A couple do not like being worked with in reg. classroom,
  others do not mind
Children want to go back to security of resource room
Afraid at first
Neither group is happy--non-identified LD integrated into
  LD class

5. Are you enjoying the newly designed program?
    YES - 45 POSITIVE COMMENTS
              Could never teach the old model again
    NO - 13 Whole class benefits from teaching
              It is working--it is exciting to be in on a new
                enlightened way of teaching
              Closer contact with LD teacher and closer
                interaction with regular students
              Lower students being helped that are not
                identified
              Learning as I go
              Model is better, need more planning time
              Keeps me on track
              Enjoy it but can't do it right because of time
                restraints
              At risk children being helped
              Yes, yes, yes, support from my team made all the
                difference in the world
              Yes, I am meeting the needs of all children
              NEGATIVE COMMENTS
              Takes too much time away from other children
              Lower students are struggling, regular students
                need more
              Stressful in conjunction with the old program
              Stressful due to lack of proper planning time
              Some children need 1-1

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Prevocational Training for Elementary School Students

This presentation introduces a prevocational model for elementary school students to provide training in basic work skills and prepare them for higher level vocational skills.

The goals of this session are to: a) identify the need for vocational programs for younger children, b) implement integrated classroom models, c) select necessary materials, and d) establish realistic goals for students to meet vocational objectives. A chart, listing several vocational jobs and what skills are accomplished by each, accompanies this presentation.

This program began when an occupational therapist, working with special needs students in a small-town elementary school, was challenged to design cost-effective therapy to meet their prevocational needs. Working with the classroom teacher, a program was designed to keep the students within a classroom setting to work on their goals.

The objectives for the program were to: a) develop independence on the job, b) teach vocational skills (e.g., sorting) in a simulated "office" , and c) improve individual student skills (e.g., fine motor). The therapist and teacher problem-solved to find activities and materials to meet these objectives. Weekly, the occupational therapist introduced new activities which were subsequently carried out by the teacher and classroom aides. Consultation time for the staff was built into the program. A chart to record jobs, skills, and progress was maintained.

The goal of this paper is to present a model program using an integrated classroom approach to develop work skills, promote good habits, and meet treatment objectives. It has been in place for one year, and behavioral objectives written for each student have been met. Funding has come from the special education budget and donations. The school has requested that this program be extended to the upper grades. This program has met some of the vocational needs of students in public schools, given their special limitations of resources, staff, and supplies.

Teaching Language Functions Through the Fine Arts: An
Innovative Collaborative Approach to help Learning
Disabled Children Process Information.

PRESENTERS:

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The South Euclid/Lyndhurst School District believes that all
students can learn, and is committed to providing instructions and
opportunities for students to develop effective oral and written
communication skills.

Many of our learning disabled children have disabilities in
reading and oral/written language that put them at risk in all of
the content areas in the curriculum.

The emergence of educational reform is exposing Special
Education professionals to innovative projects and programs that
are being initiated and implemented across the country. Major
changes are occurring in the service delivery models and curriculum
development. There are opportunities for "tailoring" learning
experiences and working collaboratively with colleagues.[1]

The South Euclid/Lyndhurst School District is committed to
implementing and designing programs that maximize students
potentials.

An attempt was made to: 1) help learning disabled students
learn language functions, and 2) help learning disabled students
develop an appreciation for the fine arts. The Learning
Disabilities teacher and the Speech/Language Pathologist at Lowden
School collaborated to design relevant and innovative language
learning opportunities/activities. These activities were designed
to: augment pre-existing curriculum in the areas oral reading,
language, spelling, and writing; bridge the gap between classroom
and real life experiences; motivate students to learn; and enable
students to learn by watching, thinking, feeling, and doing.

The themes used for these learning experiences was the opera
Madame Butterfly and the Japanese culture.

The goal was for learning disabled students to develop
their abilities to label, describe, state facts and opinions,
create short stories, and describe past events through oral and
written tasks. A field trip to a "Special Matinee" presentation of
The Cleveland Opera was the culminating event.

A pre and post outcome based assessment was used to assess the
relevance of this project.

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[1] Work,Rhonda., Speech-Language-Hearing Services in our
        Schools: What's Happening? ASHA November 1992
        pg.39.

A Controlled Study of EEG Biofeedback as a Treatment for Attention Deficit Disorders

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To determine the effectiveness of EEG biofeedback therapy (neurofeedback) for children with attention deficit disorders (ADD), a group of children, ages 8-12, with ADD (n=8), were assessed with and without medication, before and after 16 weeks of neurofeedback therapy. To control for "clinician relationship effects" and placebo effects, a second group of matched children (n>7) were assessed before and after 16 weeks of cognitive control therapy. Cognitive control sessions were designed identically to the neurofeedback sessions, except that no biofeedback was practiced. Instead, cognitive control children played math games on the computer to practice paying attention. All children were on the optimal dosage level of medication for attention deficit disorders, as determined by a medical doctor using rating scales, medical check-ups, and the Test Of Variables of Attention (T.O.V.A.). In addition, all parents in the study attended an 8-week class in behavior management. Preliminary results for the neurofeedback experimental group show significant gains in performance on the T.O.V.A. In addition to these preliminary findings, many individual case histories have been gathered, indicating that EEG biofeedback can be a beneficial component to a multi-modal treatment for attention deficit disorders.

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Opportunities of technology:
Instructional Applications for Students with Learning Disabilities

Applications of technology to improve the quality of instruction for urban students with learning disabilities were investigated. The availability, frequency of use, and teachers' views of needed changes were queried through a survey instrument, informal discussion, and written descriptions.

The use of computers, video, and multimedia is increasing rapidly throughout much of society; yet their employment in education pales in comparison to that in business, medicine, and science. Even when the best we have is made accessible in schools, technology alone will have little impact on education, for technology is not self-implementing. Implementation is a systems issue. Teachers must be knowledgeable, skilled and confident in their ability to use technology in their instructional settings.

Teachers (N=68) of students with learning disabilities who taught in 53 different public schools in New York City were surveyed in off-campus graduate teacher education courses at a private university. Participants were asked the availability and frequency of use of 14 applications of computers and technology in special education in their schools, plus additional questions related to the subject. These additional questions were written in an open-ended format in order to provide the opportunity for participants to volunteer a wide range of information.

After completing the survey, 23 of the teachers were informally engaged in discussion in order to assist in the interpretation of the open-ended questions. Detailed, written descriptions of the availability and use of technology in programs for students with learning disabilities were later submitted by 20% of the teachers.

First, we explored the relationship between: 1) the extent to which schools help teachers incorporate technology into their instruction; and 2) the extent to which technology is actually employed to teach skills and content. The results of a correlation analysis of the total scores on these 2 factors yielded a correlation of .71, significant at the .01 level, that accounted for half of the relationship between them, a

strong and meaningful connection. In a similar vein, asked what school could do to support teachers' use of technology, 44% responded that schools should purchase and maintain needed equipment and materials. Close in frequency, 41% of the respondents suggested that assistance be provided in school to enable teachers to learn the new technologies.

Second, given speculation that teachers do not utilize available resources, we were interested in exploring the relationship between the availability of technology and its use. To investigate this relationship, an analysis was conducted on teacher ratings of the availability and frequency of use of the following 14 types of technology: Personal computer; Software; Mainframe computer; Scanner; E-mail/networking; Distance learning; Integrated multimedia equipment; Augmentative devices for Special Education; Robotics equipment; Computerized library catalog; Cable/Satellite TV; Compact disk; Video recording and Video playback.

Teachers reported that schools fall far short of implementing technologies that have been demonstrated to benefit students. However, given the paucity of teacher training reflected in the findings, it is interesting that such a high percentage of usage was reported. The suggestion that assistance be provided to teachers within the schools was not unexpected. Some of the proposed changes included furnishing adequate technology, providing supportive environments for teacher learning and experimentation.

Given the paucity of teacher training reflected in the findings, it is interesting that such a high percentage of usage was reported. The suggestion that assistance be provided to teachers within the schools was not unexpected.

Why have schools been so slow to use technology? Lack of funds is the direct, obvious answer. However, an explanation that appears equally likely is a lack of understanding by teachers, administrators, and Boards of Education of the instructional advantages that can result from integrating technology into learning across the curriculum.

The traditional media employed currently in schools selectively disenfranchise students with learning disabilities. Given multiple access routes to information, knowledge in the classroom can be accessible to most. In addition, it is important to educate students for their futures, not for our past. Their worlds will be electronic, yet often we attempt to educate students in schools that resemble museums of technology. No wonder some students find school irrelevant.

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Replication and Dissemination of Promising Programs for Individuals with Learning Disabilities

The National Center for Learning Disabilities (NCLD) is offering support to replicate and disseminate selected promising programs which are not well known outside of their original site. The session will introduce some of the current grants and describe the criteria and process for selection.

The National Center for Learning Disabilities is committed to supporting innovative educational programs to assist those individuals with learning disabilities, their families, educators, doctors, and other professionals. These programs are developed in response to identified needs and as such, vary in type and format. Research and practice repeatedly indicate the needs in all of the priority focus areas which govern NCLD's programs (early identification, teacher preparation, parent education and involvement, transition issues, cultural diversity, and socialization issues.)

One very important element of these efforts is a relatively new NCLD initiative: NCLD's Program Replication & Dissemination Initiative.

The objective of this initiative is to identify and sponsor already existing, successful programs and products which assist individuals with learning disabilities. Utilizing years of experience of funding the development of new programs through grants from the, then, Foundation for Children with Learning Disabilities (FCLD), NCLD recognized that numerous excellent programs and products benefitting individuals with LD have already been developed, but often lack the fiscal and/or human resources to effectively replicate and disseminate them beyond the origination site. As part of NCLD's efforts to widen its direct impact on a national level, it is NCLD's intention to help such programs/products reach a wider audience, and ultimately help many individuals with learning disabilities.

Each year the initiative concentrates on specific priority areas. Programs that fit into those priority areas, and that are viable for national or regional replication, are thoroughly reviewed at the staff and Board level. NCLD realizes that there are many deserving programs, but its resources are limited and must be carefully allocated.

Awardees receive financial and technical assistance from. NCLD and thus extend

their positive impact. An additional objective of this initiative is to assure a continuous life for each program, subsequent to the completion of NCLD's award.

Each replication project targets a unique group of people. NCLD believes that the rippling effect achieved through this sort of initiative has enormous potential, and is most anxious to identify potential promising programs.

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University and Public School Partnerships: Empowering Teacher/Student Assistance Teams

This project was designed to address the needs of individual professionals (i.e., regular & special education teachers, counselors, Louisiana Educational Assessment Teachers) within public school systems who are responsible for meeting many of the social/emotional and educational needs of students with disabilities. In Louisiana, the Teacher/Student Assistance Team was designed to assist regular classroom teachers in meeting the needs of a diverse population. Unfortunately, many of these professionals lack the knowledge base necessary to assist the regular classroom teacher. It was the purpose of this project for one university (i.e., Northwestern State University's Special Education Faculty) and one public school system (i.e., Teacher/Student Assistance Teams of Bossier Parish) to develop a collaborative partnership. Within this partnership, instructional modifications and interventions were described and modeled for the Teacher/Student Assistance Teams.

A pretest/posttest design was administered to assess the following:
(a) the participant's application of instructional modifications to simulated problems and to real school-related problems., and
(b) the participant's "Attitude toward Students with Disabilities and Inclusion."

The participants in this study demonstrated a substantial increase in their scores on measures of knowledge and use of instructional modifications in regular classroom settings. Posttest scores differed significantly from pretest scores. For example, in response

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to a simulated problem, on pretest measures of instructional modifications, participants listed a total of only 19 modifications. However, on the posttest measure, participants listed a total of 38 modifications, an increase of .5.

The "Attitudes Toward Students with Disabilities and Inclusion" measure allowed participants an opportunity to rate their agreement/disagreement with 21 statements. Each statement was followed by a 5-point Likert-type scale. A rating of "5" denoted "Strongly Agree" and a rating of "1" denoted "Strongly Disagree." For example, in response to the survey question: "All students can learn in general education classes," the pretest mean was 2.3 and the posttest mean was 4.45. The mean difference from pretest to posttest was 2.15.

Several important points should be considered. First, describing and modeling research-based classroom interventions assisted Teacher/Student Assistance Teams in helping regular classroom teachers deal with a diverse population. Second, developing a knowledge base of instructional modifications and interventions caused a positive shift in attitude toward students with disabilities in the regular classroom. Third, proactive interventions can be designed that are sufficiently powerful to assist Teacher/Student Assistance Teams in providing the support to regular classroom teachers in public schools.

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Classwide Peer Tutoring: A Strategy for Inclusive Education

Our school systems, both nationally and internationally, are facing a new paradigm in Inclusive Education. This concept requires innovative and accountable implementation of effective methods in general educational settings to ensure that students with learning disabilities benefit both academically and socially.

Three general educators who included students with learning disabilities into their classrooms for the entire school day used various strategies to supplement the teaching of their standard curricula. Many were effective, but the most successful was Classwide Peer Tutoring. This learning strategy focuses on tutoring in pairs within the classroom environment. The process is formally introduced and monitored by the classroom teacher, but the students take full responsibility for its implementation. They work according to an individualized program at their own rate of progress.

The program was put into place at the beginning of the second semester of school, and data were collected from students of all abilities to determine both the effectiveness of the strategy and the impact of inclusion on the entire classroom. Graphs depicting each teacher's efforts will be displayed during the poster session on Friday. All results

were positive and showed an increase in both academic and attitudinal areas.

During this study, these general educators found that an integral part of a successful inclusion program for students with learning disabilities was not only the monitoring of academic growth, but also the training of students in social skills. Pre- and post-surveys were administered to measure the students' awareness of and attitude toward disabilities in addition to weekly data collecting in the academic areas. Although each educator used a different tool for measuring results, there was an overall positive result for all.

This presentation will describe and synthesize the results of these data. We expect to alleviate the anxieties common to change in education so that students with learning disabilities can be successfully included in general education classrooms. The personal experiences of these educators together with their amazing results speak to all educators who strive to reach each child.

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Improving Reading Comprehension and Writing Through Content Classes

Many Learning Disabled students have low levels of background knowledge because they are pulled out of content classes to spend time working on reading and writing skills. Instead of using separate materials to improve these skills, we approach content classes as reading and writing classes. This approach has been used at the elementary, middle and high school levels.

This poster session will show a structured sequence used to teach both content material and reading or writing skills. This sequence includes vocabulary development and the application of active skills for comprehension. The skills include: split page vocabulary, concept pies, fishbones, spiders, K-W-L charts, and Cornell notes.

The information organized with these skills can be used as material for expository and creative writing. A process to teach clustering, outlining and editing will also be displayed.

Examples from Social Studies, Science and Mythology classes will be available. Both students and teachers from the Ben Bronz Academy will be at this session to explain the skills and answer questions.

We will also show data from the Gates-MacGinitie Reading Tests that show <u>at</u> <u>least</u> two years growth in reading scores after one school year. We will also bring samples of students' writing which show improvements in style, content and self-confidence.

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