This 1992 edition provides basic information on all research projects funded by the Division of Innovation and Development, Office of Special Education Programs, U.S. Department of Education, through December 1991. Abstracts of 198 projects are separated into 10 sections according to the primary focus of the study. The 10 sections include: "Assessment and Evaluation"; "Cultural Differences"; "Infants, Young Children, and Families"; "Instructional Effectiveness, Models, and Learning"; "Policy and Service Delivery Issues"; "Secondary Education and Postsecondary Outcomes"; "Serious Emotional Disturbance and Behavioral Disorders"; "Severe Disabilities"; "Teacher Training, Retention, and Supply and Demand"; and "Technology and Software." The entry for each research project provides such information as principal investigator name and address, grant number, beginning and ending date, purpose, method, and anticipated products. Indexes are provided for access to the abstracts by principal investigator, institution, and subject. (JDD)
Research in Education of Individuals with Disabilities

Research in Special Education Directory of Current Projects
1992 Edition

Anmarie Kallas
Editor

ERIC/OSEP Special Project
ERIC Clearinghouse on Handicapped and Gifted Children
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INTRODUCTION


The 1992 edition of the directory has been redesigned in an effort to improve the format and readability as well as enhance the ease in which particular research projects or topics can be found. The new format includes abstracts of 198 projects separated into 10 sections according to the primary focus of the study. The 10 sections include: Assessment and Evaluation; Cultural Differences; Infants, Young Children, and Families; Instructional Effectiveness, Models, and Learning; Policy and Service Delivery Issues; Secondary Education and Postsecondary Outcomes; Serious Emotional Disturbance and Behavioral Disorders; Severe Disabilities; Teacher Training, Retention, and Supply and Demand; and Technology and Software.

The appendix in the back of the directory includes Principal Investigator, Institution, and Subject indices to facilitate finding specific information. The Principal Investigator and Institution indices include page numbers for each occurrence of the name of an investigator or an institution. Each project appears once in the subject index according to the secondary or tertiary focus of the project. For example, a project placed in Section 10: Technology and Software, which is developing a mediated tactile communication system for individuals who are deaf-blind, is cross-referenced in the Subject Index under "Deaf-Blind."

The information in this directory is taken directly from OSEP's in-house database of research grants. If any errors are found in this material, they should be reported to the ERIC/OSEP Special Project so that the database, and future editions of this directory, will be as accurate as possible. Please be sure to complete the enclosed response card. Your comments will be very useful in evaluating the content and format of this publication.

Anmarie Kallas
Editor
SECTION 1:

ASSESSMENT
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Assessment of Attitudes and Attributes for Special Education Students in Connecticut: Instrument Development

GRANT NUMBER: H159F10001 
BEGINNING DATE: 9/30/91 
ENDING DATE: 10/1/92

ABSTRACT

PURPOSE: This project will develop and pilot test an attitude assessment instrument to measure students' judgment and self-perceptions about their participation in special education programs. This instrument will attempt to meet or exceed recommendations of a Connecticut special education steering committee, thus also assessing the feasibility of the committee recommendations.

METHOD: The first step will be to identify, jointly with the steering committee, sets of attributes for each of the proposed instrument's content areas. Items will be evaluated for content validity. Pilot instruments will be conducted and tested in approximately 10 Connecticut school districts. One portion, on consumer satisfaction, will be administered to the special education students, their parents, and their teachers. The rest of the instrument will be administered only to special education students and a sample of non-special education students. This portion will assess student judgment and self-perceptions of their academic competence, social competence, social integration, and extent of involvement in educational decision making. The pilot testing will be followed by item review and assessment of reliability and validity factors through correlation with behavioral variables and academic test performance. Item Response Theory may be utilized for scaling this attitude survey.

ANTICIPATED PRODUCTS: The primary product will be the survey questionnaire assessing student judgment and self-perceptions. Additional products will include a set of operational definitions of selected outcomes and a detailed review and analysis of the data collection strategy, the usefulness of this information, and the feasibility of implementing such data collection on a statewide basis.

National Center on Assessment of Outcomes for Children and Youth with Disabilities

GRANT NUMBER: H159C00004 
BEGINNING DATE: 10/1/90 
ENDING DATE: 9/30/95

ABSTRACT

PURPOSE: This project will improve the assessment of educational outcomes for children and youth with disabilities.

METHOD: The University of Minnesota will establish a center which will engage in six major activities: 1) engage in ongoing characterization of outcomes assessment practices in special education on a state-by-state basis; 2) develop a conceptual model for a comprehensive, national system of outcome indicators (CSI); 3) identify and implement procedures for information exchange about the developing CSI system; 4) identify, prioritize,
and generate solutions to technical and implementation issues in evaluating state and national outcomes; 5) design and implement an ongoing strategic planning process for advancing development of the CSI; and 6) identify and conduct analyses on extant databases that correspond to the conceptual framework of the CSI. The approach will be interdisciplinary, and there will be networking both within the Center and between the Center and educators and the disability community.

ANTICIPATED PRODUCTS: A National Center on Assessment of Outcomes for Children and Youth with Disabilities, established at the University of Minnesota, will enable the development of a comprehensive system of outcome indicators to proceed in a systematic way to address the needs of all stakeholders and to integrate the system into training, research-related activities, and national dissemination efforts.

Vocational Assessment of Students with Handicaps

GRANT NUMBER: H023C90068
BEGINNING DATE: 7/1/89 ENDING DATE: 6/30/93

ABSTRACT

PURPOSE: This project will determine how effectively vocational assessment services are currently provided to students with disabilities enrolled in secondary and postsecondary vocational education programs. It will also examine the relative effectiveness of the Curriculum-Based Vocational Assessment approach.

METHOD: From four to eight individuals from five of ten schools currently serving students with disabilities will be trained in CBVA techniques for each of the first two project years. Training and technical support will span six months, followed by multiple measures of program impact over an extended time. The overall method is an extended Solomon Four Group design through which all schools will receive assistance in CBVA techniques, but on a staggered schedule allowing for precise measurement of variance in dependent measures associated with preintervention baseline data-collection procedures.

ANTICIPATED PRODUCTS: Research processes and findings shall be disseminated during each project year at state, regional, and national levels.

Identification and Assessment of Children with Attention Deficit Disorder

GRANT NUMBER: H023S10007
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: The project establishes a center to organize, synthesize, and disseminate to educators, researchers, and parents the current knowledge base on assessment and identification of children with attention deficit disorder (ADD).

METHOD: The center will identify critical issues related to the assessment and identification of ADD children using the following methods: review of published literature; surveys of information needs of educators, parents,
and physicians; formation of focus groups; and use of the prototype method to test the ability of parents, teachers, and researchers to identify subtypes. A research synthesis will be written for each of the critical issues and will include a meta-analysis of quantitative data.

ANTICIPATED PRODUCTS: Anticipated products include conference presentations, journal articles, fact sheets, and a computer database of annotated references.

Preschool Children At Risk for the Development of Behavior Disorders: A Multiple Gating Procedure, Identification, and Screening System

GRANT NUMBER: H023B10004
BEGINNING DATE: 9/1/91 ENDING DATE: 8/1/92

ABSTRACT

PURPOSE: This study will attempt to improve screening for behavior disorders in preschool children by adapting the Walker/Severson’s Systematic Screening for Behavior Disorders (SSBD) for use with 3- to 5-year-old children. This measure is unique in incorporating three increasingly discriminative “gates” or stages of increasingly costly methodology thus allowing a range of cost effective screening methods and fostering early remediation for behavior disorders.

METHOD: The study will adapt the SSBD for this preschool population, will determine the psychometric properties of the preschool adaptation, and will determine the discriminative validity of the “gates” by comparing results with other measures and special education classroom placement. Subjects will include a minimum of 120 3-, 4-, and 5-year-old preschool children and 15 teachers or teacher aides.

ANTICIPATED PRODUCTS: In addition to the revised SSBD, various reports and presentations at professional meetings are planned.

A Longitudinal Study of Developmental Patterns of Children Who Are Visually Impaired

GRANT NUMBER: H023C10079
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/96

ABSTRACT

PURPOSE: The purpose of this study is to examine the sequence and rate of development of children, ages birth to 6, who are blind or visually impaired. Measures of visual acuity, behavior, temperament, and environment will be obtained in an effort to determine first, if there are differences between development of blind and sighted children and, if there are, what variables might be identified as predictors or correlates to development.

METHOD: This longitudinal study will be accomplished through a collaborative effort of Teachers College, Columbia University, and a national consortium of six service providers that will be established to cooperate in the collection of data. An assessment battery will be selected by the project Technical Advisory Committee, which will cross the three domains of child variables (such as developmental quotient, visual acuity, and health status),
family variables (such as socioeconomic status, demographics, and mother-child interaction), and program variables (such as home vs. hospital, support services, and curriculum). Project staff will conduct training of two project evaluators from each participating program who will collect data in their programs. Subjects will be children with visual handicaps who are referred to and served by the programs participating in this study; it is foreseen that the study will include a sample size of 300 children per one-year cohort. Yearly analyses will be conducted of the patterns emerging in the three sets of variables, their interaction, and their influence on child competence and family adaptation. The normative data collected in this study will be analyzed by measures of central tendency, factor analysis, and discriminant analysis.

ANTICIPATED PRODUCTS: Annual data will be pooled with previous data and reported to the field by means of project reports. Dissemination efforts will include these annual reports, journal articles, and a final report.

Development of an Expert System to Assess and Increase Social Competence of Students with Handicaps

GRANT NUMBER: H023N00017
BEGINNING DATE: 7/1/90 ENDING DATE: 6/30/93

ABSTRACT

PURPOSE: This project will develop a microcomputer-based expert system that will aid teacher assistance teams in assessing and improving the social competence of elementary school students with disabilities.

METHOD: A feasibility/design study will be conducted to identify the expectations that members of teacher assistance teams have for an expert system. Decision rules that describe best practices in the assessment of social competence and the development of treatment plans will be incorporated into the system. The system will help users develop appropriate treatment plans, and it will have the capacity to provide a list of relevant intervention materials or curricula.

ANTICIPATED PRODUCTS: A training package will also be developed that will use the system to help users gain expertise in making assessment and intervention decisions about the social competence of students.

Social Functioning of Students with Learning Disabilities

GRANT NUMBER: H023B10048
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: The purpose of this investigation is to provide a comprehensive and systematic examination of the social functioning of elementary students with learning disabilities.

METHOD: A between-groups comparison will be conducted to determine whether students with learning disabilities (LD) differ from low achievers and average/high achievers with respect to social functioning. Subjects will consist of 180 elementary school students (grades 3-6) from a multiethnic, multicultural population in Dade County Public Schools (FL). A multivariate design will be used including data from the following sources: rating...
Research on Responsibly Reintegrating Academically Competent Special Education Students Into General Education Classrooms

GRANT NUMBER: H023B10033
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT
PURPOSE: The goal of this project is to develop data-level procedures for reintegrating students with disabilities into general education classrooms.

METHOD: A model stressing responsible (i.e., data-based) reintegration of academically competent students with mild disabilities has been proposed. The proposed RReACS model (Responsible Reintegration of Academically Competent Students) incorporates decision making in an ecological context: the decision is based on data indicating that the student has academic skills at least comparable to those of general education (GE) students at the lowest level of the curriculum. This study will investigate identification of potentially academically competent special education (SE) students by both their level of skills and rate of progress in the general education curriculum using curriculum-based measures (CBM) of reading. Subjects will be general education teachers from two school districts in Oregon, approximately 100 special education students (learning disabled and educable mentally retarded) in grades 2 to 6, and general education students in grades 2 to 6 who receive reading instruction in the lowest GE reading group in their classroom. The first phase of the research will focus on the incidence of mildly handicapped students who are potentially academically competent in terms of both their level of skills and rate of progress and how information on level of skills and rate of progress impact GE teacher willingness to reintegrate. The second phase will involve reintegrating SE students on a trial basis, monitoring the rate of progress of reintegrated students, and determining the impact this information has on GE teacher willingness to maintain reintegration. Data analysis in both phases will involve analysis of covariance (ANCOVA).

ANTICIPATED PRODUCTS: Reports and findings will be presented at national conferences and in the professional literature.
Decision Making in School Psychology: Implications for the Education of Children and Youth with Disabilities

PRINCIPAL INVESTIGATOR: Kennedy, Mary L; Willis, W. Grant
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GRANT NUMBER: H023B10060
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: The series of three studies is intended to increase understanding of school psychologists' decision making in relation to students with disabilities.

METHOD: Study 1 will address the extent to which school psychologists base their psychoeducational decisions about children and youth with disabilities on assessment techniques of varying levels of validity. A total of 300 school psychologists (practitioners and trainers), selected randomly from the National Association of School Psychologists, will be sent questionnaires to determine the frequency of use of approximately 50 assessment/testing instruments and the extent to which they rely on more "projective" assessment techniques in the classification of children. Study 2 will also employ survey procedures with approximately 300 school psychologists to determine the effects of patterns of subtest scatter on the WISC-R and the classification of a student as learning disabled. In Study 3, 30 practicing master's or doctoral level school psychologists in the Rhode Island area will be asked to diagnose three child cases in order to examine their ability to identify the sources of information that directly impact their classification decisions and to highlight the discrepancy between the information identified by the subjects and information actually utilized.

ANTICIPATED PRODUCTS: The outcome of these studies will be to contribute to the decision-making knowledge base and especially the decision to classify a student as learning disabled. The applicants plan to disseminate the findings of this study through publications in professional journals in school psychology and special education and to present their results to a national conference.

Miami Center for Synthesis of Research on Attention Deficit Disorder

PRINCIPAL INVESTIGATOR: McKinney, James
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GRANT NUMBER: H023S10013
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: This project will organize, synthesize, and disseminate current knowledge about the assessment and identification of children with Attention Deficit Disorder (ADD).

METHOD: The information base will address and be organized around the following issues: definitions and operational criteria for classification, educational, biomedical, psychological, and social manifestations of the disorder; the developmental relationship and occurrence with existing categories of disabilities; and the evidence concerning the nature and severity of educational needs that would require special education and related services. The synthesis of the literature will include a comprehensive description of the specific practices that have been used to identify, classify and diagnose
ADD and related conditions at the preschool, childhood, and adolescent periods of development. Existing measures will be reviewed and evaluated for their technical adequacy and the extent to which they provide information that is relevant to the identification, diagnosis, educational planning, and program evaluation practices currently used to provide special education and related services. The nature and qualification of personnel needed for a comprehensive, multidisciplinary evaluation of children with ADD will be described.

ANTICIPATED PRODUCTS: A needs assessment will be conducted with national professional and parent organizations to determine their priorities for information on particular issues and preferred format for disseminating information to their membership. Proposed products include a research synthesis, topical literature review, annotated bibliography, and assessment/identification booklets for parents and educators.

The Development of an Empirically Based Scale to Assist Multidisciplinary Teams to Decide the Appropriateness of Braille Instruction for Blind and Visually Impaired Children

GRANT NUMBER: H023A10071
BEGINNING DATE: 10/1/91 ENDING DATE: 2/28/93

ABSTRACT

PURPOSE: This study constitutes the second phase of a project in which an empirically-based assessment instrument was developed to be used by multidisciplinary teams to determine whether a child who is visually impaired should begin or continue to receive Braille instruction. The purposes of this phase of the project are: 1) pilot test the instrument’s normative standardization; 2) develop the instrument’s administration and scoring procedures; and 3) disseminate the results and findings to other vision-impairment professionals.

METHOD: This study will be divided into five basic stages. The first stage will consist of a mailing to the 225 professionals in the vision-impairment field who were involved with developing the scales in the Braille Assessment Inventory (BAI). Results of this mailing will be evaluated to determine which of the professionals will be included in the second phase of the project and which of their students will be included. In the second stage, professionals will complete assessment packets on approximately 500 students with a vision impairment and 250 students with no identified impairment. Packets will contain: 1) a BAI to be filled out for each student; 2) a survey inventory to collect demographic and performance information; and 3) a parental consent form. In the third stage a factor analysis, reliability analysis, and item analysis will be conducted with the BAI data. A panel of vision impairment professionals will be used to compare individual student demographic and performance data obtained during the second stage of the study against their BAI raw scores in order to assess the match between student information and BAI raw scores and to validate the results of the BAI. The recommendations of the panel will also be used to develop the standard scores, learning quotients, and age level categories used in administering and scoring the BAI. Multiple discriminant analysis will be used to determine the BAI’s capacity to discriminate between students with a vision impairment and those without. The final stages of the study will involve developing, writing, and editing the manual for the BAI, and disseminating the results.
A Training Package for Assessing Signed Language Acquisition in Deaf Children

ANTICIPATED PRODUCTS: The primary result of this study will be a manual for administering and scoring the Braille Assessment Inventory. Dissemination activities will include mailing an executive summary to all professionals participating in the study, presenting findings at conferences, and writing articles for academic journals.

Development and Validation of an Instrument to Measure Social Processes and Intervention Effects Within a Mainstream Class Environment

ANTICIPATED PRODUCTS: The primary result of this study will be a manual for administering and scoring the Braille Assessment Inventory. Dissemination activities will include mailing an executive summary to all professionals participating in the study, presenting findings at conferences, and writing articles for academic journals.

GRANT NUMBER: H023A10035
BEGINNING DATE: 10/1/91     ENDING DATE: 3/31/93

ABSTRACT
PURPOSE: This project will develop and pilot test materials in both video and print formats to train professionals in the use of an instrument designed to chart the signed language development of children who are deaf. The instrument is based on recent research in the acquisition of American Sign Language by children who are deaf.

METHOD: The training materials will be field tested with up to five individuals at each of three sites, with each individual using the instrument (a checklist) to evaluate the signed language competency of three to five students.

ANTICIPATED PRODUCTS: The training package will contain: multiple copies of the two forms of the instrument; a handbook introducing the instrument, presenting the basic categories of ASL structure, defining terminology, and giving step-by-step instructions; a videotape (signed) presentation of the handbook material; and a videotape of examples of children's signed communication.

GRANT NUMBER: H023C10135
BEGINNING DATE: 7/1/91     ENDING DATE: 6/30/94

ABSTRACT
PURPOSE: This project will develop and validate an ecobehavioral assessment instrument that will yield information concerning social processes in the mainstream elementary classroom and that can be used to elucidate the relationships of these process variables to student social outcomes such as social competence and peer acceptance.

METHOD: First, a new ecobehavioral evaluation instrument (similar to the Code for Instructional Structure and Student Academic Response: CISSAR) will be developed to measure the social environment and social interactions within the mainstream elementary classroom. Next, the resulting observation system will be field tested in mainstream classrooms in the public schools. A series of four studies will be conducted to establish the reliability, validity, and stability of the instrument and to test the sensitivity of the instrument to changes in process and product variables. A social skills training program will be implemented in selected classrooms, and the effects of the intervention will be determined through the use of a pretest-posttest control-group design. The effects will be measured using the...
ecobehavioral observational code, standardized social adjustment measures, social skills curriculum-based outcome measures, and academic curriculum-based outcome measures. The population samples for each study will be drawn from public school children attending grades 4, 5, and 6 in two school districts in Kansas: Lawrence and Kansas City. Subjects will be randomly selected from three groups of students in each classroom: students with educational disabilities, students with high social status/acceptance, and students with low social status/acceptance.

ANTICIPATED PRODUCTS: The immediate outcomes of this project will be validation and dissemination of an ecobehavioral assessment package for social behavior in mainstream educational settings. This package will contain: a fully validated observation system; observer training materials; technical reports on reliability, validity, stability and sensitivity of the assessment package; and computer software for analyzing the data on microcomputers.

Research on Responsibly Reintegrating Academically Competent Special Education Students Into General Education Classrooms

GRANT NUMBER: H023C10151
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/94

ABSTRACT

PURPOSE: The proposed research is based on the premise that reintegration of students into the least restrictive environment (LRE) should be data based: models and procedures should be validated empirically. A model stressing responsible (i.e., data based) reintegration of academically competent students with mild handicapping conditions is proposed: the RRReACS model (Responsible Reintegration of Academically Competent Students).

METHOD: Studies in the first year will focus on nonintrusive research directed at: 1) identifying the level of performance and the rate of progress expected of general education (GE) students in the GE curriculum; 2) determining the number of special education (SE) students demonstrating levels of performance and rates of progress comparable to GE students (using curriculum-based measures of reading); 3) examining the attitudes and concerns of SE and GE teachers about reintegration of PAC students; and 4) identifying relevant, meaningful data and available resources that potentially can facilitate the successful reintegration of PAC students. The second year of research will be experimental (intrusive) in that student placement will be manipulated with the support of parents and teachers. Reintegration will be pursued for all PAC students in two waves. For each student, academic performance will be considered by the IEP and appropriate placement made following due process procedures. The effects of reintegration on the level of academic skills, rates of progress, and perceived self-efficacy will be examined in single-subject and group experimental designs. Subjects will include GE and SE students (grades 2-6), GE and SE teachers, and parents of students from two school districts in Oregon.

ANTICIPATED PRODUCTS: The project should result in a model program to facilitate the reintegration of special education students into general education. Dissemination of the model will begin at national conferences, through journal publications, and school district workshops.
A Pilot Application of Rasch Scaling Procedures to the Development of Screening Forms of the Bayley Scales

GRANT NUMBER: H023A10094
BEGINNING DATE: 10/1/91       ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: This project will apply the Rasch scaling procedure to the development of screening forms of the Bayley Scales of Infant Development (BSID). The primary goal is to produce a brief form of a high quality diagnostic instrument which can be used in assessment of young children with disabilities and which will yield scores and decisions equivalent to the full-form without compromising quality.

METHOD: Rasch analysis (test construction, item selection, test analysis) will be applied to the BSID with the assistance of a computer program (MSCALE). There are eight major procedural objectives of this project. First a data bank will be compiled consisting of: a) item-level Bayley response data for the normative sample (1,262 infants and toddlers), a sample of 400 very low birthweight infants, and for a sample of 600 infants and toddlers with disabilities; and b) descriptive data available concerning subject’s characteristics (adjusted chronological age in months, developmental status/disabilities variables, intervention status variables, and follow-up IQ data). Rasch calibrations of the full-scale BSID will be conducted in order to generate basal item and person parameters within and across age-groups (months) for each sample (and subsample) of children. Next, one or more subsets of Bayley items will be isolated which yield logistical ability score estimates that are statistically equivalent to those for the complete test and optimal regression between logistical ability estimates on the short-form and the full-form. Two or more equivalent brief-forms that share a minimum number of common items will be developed. Finally, a very brief prescreening scale will be developed, and a series of concordance tables will be generated for the best screening form.

ANTICIPATED PRODUCTS: A technical manuscript describing the rationale, theory, methodology, and results will be submitted to ERIC as well as for publication to a journal in the field of assessment, early intervention, or special education research methods. A nontechnical description of the project and its outcomes will also be submitted to ERIC. Results of the study will be made available for dissemination by a center for research in mental retardation, and through a conference presentation.

A Study of the Development and Characteristics of Narrative Ability in Hearing Impaired Children

GRANT NUMBER: H023B10062
BEGINNING DATE: 9/1/91       ENDING DATE: 12/31/92

ABSTRACT

PURPOSE: The objectives of this study are to determine characteristics of conversational and fictional narratives produced by children who are hearing impaired and to describe the development of these abilities.
METHOD: The sample for this study is 24 children who are profoundly hearing impaired, ages three to 12, and in six self-contained classes at Tucker-Maxon Oral School in Portland, Oregon. Data for two narratives will be collected. Data collection for the conversational narrative will consist of: 1) videotaping and transcribing each class during lunch (elementary) or snack (preschool) and during classroom "chat time" once a month for 8 months and 2) videotaping each child telling about excursions taken by all the students during September, February, and May of the school year. Data collection for the fictional narrative will consist of: 1) collecting first drafts of written narratives produced during a daily writing period for 8 months (elementary); 2) videotaping and transcribing each child telling a story based on a wordless picture book during September, February, and May; and 3) having each child then write this same story (elementary). Analysis of the resultant data will produce a description of the context, content, form, semantic complexity, cohesion, and structure of conversational and fictional narratives produced by children who are hearing impaired. Analysis of variance between narratives produced under different conditions will permit determination of important differences among conditions and time periods. Collecting data from children with a range of ages and from each child over the course of a school year will allow for determination of important trends in development.

ANTICIPATED PRODUCTS: The results of this project will be widely disseminated by publishing articles and making presentations at workshops, conferences, and conventions. The findings will be incorporated into a teacher education curriculum.

Statewide Evaluation of Academic Outcomes of Educational Programs for Students Receiving Special Education Services - Establishing a Longitudinal Database

GRANT NUMBER: H159A00009
BEGINNING DATE: 1/1/91
ENDING DATE: 12/30/92

ABSTRACT

PURPOSE: This project will validate the Connecticut Mastery Test (CMT) as a reliable academic indicator for any specific subgroup application, specifically for special education students.

METHOD: The Connecticut State Department of Education (CSDE) will replicate and extend the psychometric analyses done under Cooperative Agreement H159A80010. These analyses will allow for confirmation of initial findings on the usefulness of the CMT for statewide evaluation of special education programs. Secondly, the CSDE will establish the data management systems for linking the yearly CMT data collections to establish the longitudinal cohort database. Third, the CSDE will validate the use of two decision models for evaluating the academic progress of special education students.

ANTICIPATED PRODUCTS: The results of this project will include: 1) a thorough, in-depth analysis of the psychometric properties of the CMT for special education test takers; 2) the validation of two analytic models for assessing academic growth in the context of a longitudinal research design; and 3) the products associated with the standard-setting procedures for assessing the rate of academic progress for special education students.
A Longitudinal Investigation of the Social Networks of Children with Mental Retardation

GRANT NUMBER: H023N00020
BEGINNING DATE: 9/1/90 ENDING DATE: 8/31/93

ABSTRACT

PURPOSE: This project attempts to improve our understanding of the social support systems of children with mild mental retardation in order to help these children make successful transitions in school.

METHOD: Both the nature of the social networks of children with mild mental retardation, and the extent to which those networks provide these children with social support will be examined. The changes that occur in the social networks and social supports over time, and the role that they play in facilitating adjustment to the transition to middle or junior high school will also be examined.

ANTICIPATED PRODUCTS: The knowledge gained will serve as a foundation for educators as they devise new strategies for helping children with mild mental retardation make successful transitions between public school environments and to placements beyond public schools.

Information Processing Deficits in Mathematics: A Longitudinal Study

GRANT NUMBER: H023A10024
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: The purpose of this longitudinal study is to apply Sternberg's triarchic model of cognitive performance to an in-depth examination on the information processing characteristics of students with learning disabilities as they perform complex mathematical tasks.

METHOD: A total of 45 students will participate in this study: 30 intermediate (grades 4-6) students with learning disabilities with IEP objectives in arithmetic, and 15 3rd-grade students with no discernible learning disabilities who score between the 40th and 70th percentile on the mathematics subtest of the Metropolitan Achievement Test. A multifaceted examination will be done of the patterns of misconceptions, information processing "bottlenecks," and underlying problems that characterize the performance of the students with learning disabilities. The study will document prominent patterns of errors and misconceptions that occur and how they evolve over an 8-month period of time. The research will also contrast patterns of misconceptions of the students with learning disabilities as they are taught complex material involving subtraction and addition with the cognitive characteristics of a smaller sample of students without disabilities. Analysis will be based on Kolligan and Sternberg's triarchic model, which views competent academic performance as influenced by three interrelated components: strength of knowledge base, strategic processing, and motivation. A range of measures will be administered throughout the study including the Basic Facts Test of Automaticity, the TORUS Achievement Test, and Think Aloud Methods. Data analyses will include descriptive and correlational analyses and MANOVA techniques to determine growth.
ANTICIPATED PRODUCTS: In addition to plans for wide dissemination of research findings in professional journals and at regional and national conferences, the researchers plan to share instructional implications of their findings with practitioners in the field through inservice workshops for local district personnel.
SECTION 2:

CULTURAL DIFFERENCES
Development and Validation of an Evaluation Instrument to Measure Instructional Effectiveness of Bilingual Special Education Programs

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GRANT NUMBER: H023C00052
BEGINNING DATE: 8/1/90 ENDING DATE: 7/31/93

ABSTRACT
PURPOSE: This project will apply the process-product methodology to special and mainstream bilingual education programs to identify components critical to their success.

METHOD: An observational instrument that measures instructional variables and students' behavior is needed. Four research studies will establish the instrument's reliability and validity. Study 1 will be a repeated measures design to determine the reliability of the proposed ecobehavioral observation instrument. Study 2 will investigate the treatment validity of the instrument by demonstrating its ability to detect systematic variations in manipulated instructional variables. Study 3 will demonstrate concurrent and predictive validity of the proposed instrument. Study 4 will describe and compare different bilingual special education and mainstream classrooms in terms of ecobehavioral process and product variables.

ANTICIPATED PRODUCTS: A methodology will result that will allow a more precise determination of why bilingual intervention programs work for students with limited English proficiency in special and mainstream settings.

A Comparative Study of Language and Learning Disabilities Across Chinese and Hispanic Language Minority Groups

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GRANT NUMBER: H023A10050
BEGINNING DATE: 9/1/91 ENDING DATE: 2/28/93

ABSTRACT
PURPOSE: This comparative study across two language groups (Chinese and Hispanic) is intended to: 1) generate empirical and comparative data on learner characteristics among students with school-identified learning and/or language disabilities; 2) analyze and describe the target students' home and language proficiency, home literacy environment, and reading performance; and 3) develop an interactive assessment and intervention model for classroom use by teachers of minority students to effectively assess and remediate language and learning problems.

METHOD: The project incorporates both qualitative and quantitative methodologies to document profiles of four groups of grade 2 and grade 3 children: 8 Chinese immigrant children, 8 Mexican immigrant children, 8 American-born Chinese whose home language is not English, and 8 American-born Mexicans whose home language is not English. Assessment (survey, interview, audio taping, and observational instruments) will evaluate three language components: levels of home and school language proficiency, family and community literacy environment, and use of language cues in making sense from print.
ANTICIPATED PRODUCTS: Dissemination products are expected to include reports, articles, and presentations in the professional literature and at meetings and preparation of instructional implication materials for teachers.

Program Effectiveness for Culturally and Linguistically Different Exceptional Students

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GRANT NUMBER: H023A10081
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT
PURPOSE: The purpose of this project is twofold: 1) to determine how effective bilingual special education (BSE) and traditional special education (TSE) programs are in meeting the needs of culturally and linguistically different exceptional students (CLDE); and 2) to compare student outcomes, parent involvement, and classroom/teaching behaviors of both programs.

METHOD: The study will involve the only two bilingual special education classrooms in the Albuquerque Public Schools and a traditional special education classroom having a large percentage of Hispanic students. Student outcomes in academic achievement, native language maintenance and development, English language acquisition, and social/emotional variables will be compared across all programs. In addition, classroom variables such as teacher-student interaction, language use in the classroom, teacher style and student learning style match, reinforcement used, and the application of "significant instructional strategies" will be evaluated. The type of parent involvement occurring in each program and the parents' views of their child's educational program will be analyzed. Both formal and informal assessment procedures will be used. The majority of the results will be reported in descriptive form. A qualitative and quantitative analysis of data will be performed at the end of the 1991-92 year.

ANTICIPATED PRODUCTS: This study will attempt to contribute to the existing body of knowledge by providing necessary information on what makes a special education program effective for CLDE students and what does not.

Native Hawaiian Special Education Program

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GRANT NUMBER: H221A10001
BEGINNING DATE: 5/1/92 ENDING DATE: 4/30/93

ABSTRACT
PURPOSE: This project seeks to expand programs to serve Hawaiian and part-Hawaiian special education students and their parents.

METHOD: The first of three major project components will consist of a state-wide teacher inservice and preservice program, administered through the University of Hawaii, to provide teacher training to enhance cultural sensitivity to the unique needs of Hawaiian students and to recruit and train Hawaiian and part-Hawaiian special education teachers and educational support staff. It is anticipated that this component will reach over 50 preservice teachers, at least 100 inservice teachers, 50 educational assistants, and 10 school administrators. In the second project component, prereferral and mainstreaming demonstration projects will be located in the Windward, Hawaii, Leeward, and Maui school districts to support and maintain Hawaiian and part-Hawaiian students with special needs within regular
classroom programs. This component should affect 1,400 special education students, 75 teachers, 20 special services and related service providers, and 6 administrators. Finally, a state-wide parent and community involvement component, expected to affect 500 students and 100 parents, will encourage and support the participation of parents of Hawaiian children in school programs.

ANTICIPATED PRODUCTS: Outcomes of the project should include: enhanced capabilities to meet the special educational needs of Hawaiian students, increased participation of Hawaiian parents and community leaders in school programs, and improved school programs to prepare Native Hawaiian special education students to participate more fully in present and future integrated settings.

The Language Minority Student and Special Education: A Multi-Faceted Study

GRANT NUMBER: H023H00014
BEGINNING DATE: 9/15/90 ENDING DATE: 9/14/93

ABSTRACT

PURPOSE: This project will develop feasible strategies that improve the quality of instruction for language minority students receiving special education in the least restrictive environment.

METHOD: A case study will be developed to document program and service options provided to the target population. Twelve students, their families, and educators will be interviewed and observed to develop the ethnographic component. Intervention strategies will be developed for special educators and classroom teachers to use with language minority students who have mild disabilities. Staff development materials based on a distillation of the interventions will also be developed.

ANTICIPATED PRODUCTS: Data that is immediately relevant to those providing services to language minority students, and the materials necessary to implement intervention, will be a result of the project.

A Descriptive Study of Collaboration Between Bilingual and Special Educators

GRANT NUMBER: H023A10054
BEGINNING DATE: 10/1/91 ENDING DATE: 3/21/93

ABSTRACT

PURPOSE: The goal of this research study is to provide insight into factors that help and that hinder collaborative activities of bilingual and special educators as they work together to remedy problems and establish optimum learning environments for bilingual exceptional students. Specifically, the study will explore the following questions: 1) What are the skills these educators need to work collaboratively? and 2) When, how, and why are these skills used during the development and implementation of a collaborative team?
METHOD: The researcher will use ethnographic methodologies. Two teams (5 people each) of bilingual educators and special educators, one at the elementary level and the other at the junior high level, will be studied. These teams will serve approximately 81 children who are mildly disabled. Using participant observation techniques, the researcher will follow the professional lives of these educators through the 1991-92 academic year by attending their team meetings, observing their school activities, and engaging them in informal conversation regarding their collaborative activities. Participant observation will result in extensive field notes containing three types of data: 1) ethnographic narration - concrete descriptions of everything of relevance that the researcher sees or hears; 2) data concerning focused competencies and subcompetencies of central interest to the project; and 3) the researcher's own interpretive comments, queries, or working hypotheses. Using qualitative analysis techniques, taxonomies will be developed for each major competency, followed by organization of data across areas.

ANTICIPATED PRODUCTS: Dissemination of findings at local, state and national levels, through conference presentation and written reports, is planned.

**Parent-Professional Partnership: Minority Parents' Participation in the Educational Process**

**ABSTRACT**

PURPOSE: This project will investigate black parents' initial expectations of their role in their children's schooling, and to trace the development of these expectations and actual participation through grades K-2.

METHOD: A qualitative design will be used, based on in-depth, open-ended interviews and observations of meetings between parents and school personnel. Three schools will be chosen from predominantly black areas of Baltimore, and the sample will include parents/guardians of 36 black children, ages 5-6, entering school with no prior academic experience. Eighteen of these families will have children entering special education programs with mild disability classifications, the rest entering regular education programs.

ANTICIPATED PRODUCTS: Findings will be submitted to professional journals and presented at professional conferences. State and local administrators of regions with substantial low-income black populations will receive results in the form of executive briefs.
Enhancing the Delivery of Services to Black Special Education Students from Non-Standard English Backgrounds

GRANT NUMBER: H023H00008
BEGINNING DATE: 8/1/90  ENDING DATE: 7/31/93

ABSTRACT

PURPOSE: This project will conduct an ethnographic study in selected elementary level special education classrooms in the Baltimore City Public Schools.

METHOD: Ethnographic and sociolinguistic research will be conducted to inform the development of a set of instructional interventions. Ethnographic approaches will be used to investigate aspects of service delivery settings. Inservice training will be provided to project teachers. Using a mentoring model of staff development, the program will be extended to other teachers.

ANTICIPATED PRODUCTS: A tested and disseminated program of instructional interventions to promote cognitive development, strategies for enhancing linguistic and social skills for school, and staff development options to support delivery of the intervention will be developed.

Alternative Special Education Assessment of Urban Minority Students

GRANT NUMBER: H023A10015
BEGINNING DATE: 10/1/91  ENDING DATE: 12/31/92

ABSTRACT

PURPOSE: The study will investigate interrelationships among three types of evidence regarding the abilities of urban minority special education students: 1) existent standardized scores, 2) newly developed performance-based instruments, and 3) teacher and parent observations.

METHOD: The study will involve 130 Hispanic and African-American special education students, predominately classified as learning disabled, who are enrolled in an elementary school in New York City’s South Bronx. The three types of evaluation methods to be studied will include: 1) existing standardized test data from student files (WISC-R and Degrees of Reading Power); 2) portfolio assessments based on criteria developed in Arts Propel, a collaborative alternative assessment project between Educational Testing Service and Harvard University’s Project Zero; and 3) a teacher/parent observation schedule based on Gardner’s theory of Multiple Intelligences and the Primary Language Record. Data from this pilot study will be analyzed to investigate the intercorrelations among standardized scores, performance-based instruments, and teacher and parent observations; and to investigate the mean differences among ethnic, gender, and grade level groups on the three assessment types.

ANTICIPATED PRODUCTS: Dissemination activities will include presentations of findings to staff and parents in the school district and to a coalition of urban schools in Manhattan, the Bronx, and Long Island. Additional activities will include publication in a professional or technical journal, conference presentations, and a final report.

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Proactive Schooling: Preventing Dropout in Highest Risk Adolescents

GRANT NUMBER: H023K00011
BEGINNING DATE: 10/1/90 ENDING DATE: 8/31/95

ABSTRACT

PURPOSE: This project focuses on a comprehensive school-based dropout prevention program targeting Hispanic students who have been identified as having serious emotional disturbance or learning disabilities. These students have also been identified as being at high-risk for dropping out of school.

METHOD: The program will focus on four spheres of influence on student achievement and school continuance. Students' social and task-related behavior will be remediated with a previously tested social metacognitive problem-solving training program. Parent training will be provided in an effort to improve the parent-school relationship and increase parent participation. Teachers will be required to provide weekly and bimonthly reports to the students and the parents concerning the child's progress. Specific student-student and adult-student bonding activities will be planned. School attendance will be monitored on a period-by-period basis. Data analysis will be conducted.

ANTICIPATED PRODUCTS: The project will disseminate information through publications and conference presentations.

Literacy Intervention in At-Risk Hispanic Learning Handicapped Inner-City Adolescents: A Pilot Study

GRANT NUMBER: H023A10006
BEGINNING DATE: 10/1/91 ENDING DATE: 11/30/92

ABSTRACT

PURPOSE: This project is intended to improve the literacy of Hispanic students in special education and in regular education who are considered to be at high risk. The project uses a sociocultural approach to organize instructional activities that are meaningful, motivating, and linguistically compatible with students' background knowledge. The whole language approach in a collaborative learning environment is proposed.

METHOD: The 14-month project integrates comic books, video, and audio cassette tapes in a tutorial afterschool workshop. Observational data as well as individual change scores will be obtained to assess the effectiveness of the intervention program. Key indicators are higher student involvement and improved literacy in reading and writing as measured by the California Assessment Program or the Comprehensive Test of Basic Skills. Specific teaching strategies will include a literature study approach, collaborative learning, and a writers' workshop. The study will track 7th grade Hispanic students, 20 who are learning disabled and 20 who are low-achieving, judged at highest risk of dropping out.

ANTICIPATED PRODUCTS: Products and dissemination plans include a research monograph documenting the program's effectiveness and efficacy; publication of one or more articles in professional journals; dissemination at seminars in the Los Angeles area; presentation of data at one or more professional conferences; and provision of follow-up consultation and technical assistance to educators interested in utilizing the program.
Reducing Cultural Misunderstanding in Schools and Related Service Settings

GRANT NUMBER: H023H00005
BEGINNING DATE: 9/1/90 ENDING DATE: 8/30/93

ABSTRACT

PURPOSE: This project will examine the misunderstandings that arise in the context of educating the minority and limited-English-proficient child who has special needs. A training program to improve the network of teaching and related service relationships which surround the child will be developed.

METHOD: The interactional features which create crosscultural confusion and misunderstanding will be identified. Investigators will examine how each participant makes sense of what is going on in their crosscultural or crossprofessional interactions. From this ethnography, a training program will be developed, its impact evaluated, and a comprehensive dissemination plan produced.

ANTICIPATED PRODUCTS: The project will develop a training program for school personnel in the metropolitan Chicago area that will improve the quality of the education received by children with exceptionalities who are from minority populations or have limited English proficiency.

Educating Young Disabled African-American Children in the Context of Their Families: A Research for Variability

GRANT NUMBER: H023N10022
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/94

ABSTRACT

PURPOSE: The purpose of this research is to carry out a systematic, comprehensive analysis of characteristics of African-American families with particular reference to caregiving and intervention needs for a child with disabilities or identified as being at risk.

METHOD: The subjects will be 150 African-American families with children ages 0-5 years who are enrolled in an intervention program for children who are at risk and/or developmentally delayed. A longitudinal study will be conducted involving initial interviews of all families and follow-up sessions after intervals of approximately 6 and 12 months. Descriptive and correlational statistics will be used to study the nature of within-culture variability among dimensions of the families such as caregiving beliefs and practices, perceived family characteristics, and ethnic identity. A multiple analysis of variance approach will be used to test for group differences in family characteristics along social class, ethnic identity, and family structure dimensions. The extent of change in family needs over time and the factors differentially predictive of overall family needs and child-related family needs will also be examined. Researchers plan to identify implications of findings for service delivery, preservice and inservice training, and future research.

ANTICIPATED PRODUCTS: Possible products may include reviews of literature, research monographs, articles, protocols, workshops, and other appropriate outgrowths of the research.
SECTION 3:

INFANTS, YOUNG CHILDREN, AND FAMILIES
Caregiving Antecedents and Developmental Outcomes in Drug Exposed Infants

GRANT NUMBER: H023B10042
BEGINNING DATE: 7/1/91 ENDING DATE: 12/31/92

ABSTRACT
PURPOSE: The proposed study will examine the behavioral and developmental outcomes of infants exposed prenatally to cocaine and specific aspects of their caregiving context during the first postnatal year.

METHOD: The study is integrated with an existing intervention project in the Department of Pediatrics at Duke University Medical Center, the Infant Care Project (ICP). The ICP recruits substance abusing women both prenatally and at birth for an intervention focused on the mother and child relationship. The focus will be on very specific aspects of the immediate caregiving relationship: availability of the mother to the child, quality of the mother and child interaction, and maternal view of the child’s behavior. Thirty mothers and infants, recruited at birth, will participate in four assessment occasions from birth to 12 months of age. Research questions will address the change and stability, determinants, and effects of these aspects of the caregiving relationship for the development of the drug exposed infant. Additional descriptive approaches are designed to assess aspects of caregiving during the first year associated with very good and very poor outcomes. Procedures will include videotaped mother and child play sessions, developmental assessments, interviews and questionnaires with the mothers, and home visits. A variety of measures to examine independent and dependent variables will include the Time Spent with Child Interview, the HOME Inventory, the Battelle Scales, and the Ainsworth’s Strange Situation paradigm.

ANTICIPATED PRODUCTS: Products will include technical reports, conference presentations, and journal articles.

Research in Early Education

GRANT NUMBER: 024XH70002
BEGINNING DATE: 10/1/87 ENDING DATE: 9/30/92

ABSTRACT
PURPOSE: This project will establish an Early Childhood Research Institute focusing on the preparation of professionals to work with infants with disabilities and their families. The Institute will study effective procedures for educating professionals and develop and evaluate the effectiveness of needed training materials and curricula. Primary focus will be placed on developing materials and curricula related to working with families, interacting with professionals from other disciplines, determining when other specialists must be consulted, developing an individualized family services plan, and accessing emerging information and research findings.

METHOD: A 5-year institute is proposed, consisting of three integrated strands: Preservice Interdisciplinary Studies Project, Inservice Education Project, and Materials and Development Project. As the Institute develops curricula, the sequence of activities will include determining the content to be taught, the best media formats, and the best teaching strategy. The Institute will examine and use procedures for documenting extended outcomes.
formats, and the best teaching strategy. The Institute will examine and use procedures for documenting extended outcomes of training, including ethnographic systems-level studies. The Institute will also focus heavily on the process of personnel preparation, rather than focusing on only the materials and curricula themselves.

ANTICIPATED PRODUCTS: In addition to the materials and curricula for both preservice and inservice training, a number of other products are envisioned as a result of this effort, including: eight articles on the status of infant personnel training programs; a summary paper integrating the results of the separate disciplinary papers and describing commonalities and gaps in infant personnel preparation; list of guidelines and criteria in evaluating infant training materials and curricula; a paper reporting the results of the meta-analysis of inservice training programs; and other papers, practical manuals, articles, and resource books on relevant topics.

Improving Learning Through Home/School Collaboration

GRANT NUMBER: H023L10010
BEGINNING DATE: 11/1/91 ENDING DATE: 10/31/94

ABSTRACT

PURPOSE: This research program is designed to examine: 1) current practices regarding homework and performance assessment and their impact on children's achievement, family climate, and home/school relationships; 2) family-child interactions around the topics of homework and grading; and 3) teachers', children's and parents' interpretations of fairness and effectiveness of testing and homework practices.

METHOD: Subjects will include regular and special education teachers, families, and approximately 200 students (grades 1-8) in suburban Chicago schools. Three groups of children will be involved: children with disabilities who are placed in mainstream programs, children with disabilities who are in resource room programs, and children who do not have disabilities. Seven studies will be conducted using a variety of methods. Structured interviews and questionnaires will be used to identify how homework and assessment practices are related to: 1) children's attitudes, feelings of self efficacy, achievement motivation and achievement; 2) the home environment and the family's attitudes and methods of support for homework and performance assessment; and 3) teachers' perceptions of family and child support for these practices. Another study will describe how parents, siblings and children interact when engaged in homework. A series of interview and ethnographic studies will be conducted in schools to develop homework and assessment policies that are perceived as fair and effective by teachers, students, and parents. Data will be analyzed using a variety of qualitative and quantitative approaches including analyses of variance, hierarchical regression analyses, and discriminant analyses.

ANTICIPATED PRODUCTS: Results of the studies will be disseminated to parents, teachers, and administrators via conference presentations, journal articles, and education databases.
Research on the Effect of Home-Intervention for Families of Handicapped Children

GRANT NUMBER: H023C90117 
BEGINNING DATE: 7/1/89 ENDING DATE: 6/30/92

ABSTRACT
PURPOSE: This project will provide research data on the effects of home-based interventions on children with hearing impairments and their families.

METHOD: The following studies will be completed: 1) A longitudinal panel study will compare groups of children who received home intervention to control groups and to national data on children with hearing impairments who were tested before the introduction of home programs; 2) Child gains in receptive and expressive language will be studied with the help of the SKI*HI data bank; 3) The SKI*HI adoption site will use past files to determine by which method each child's impairment was identified, and when; and 4) Demographic data files will be analyzed to determine relationships between these factors and children's receptive and expressive language scores.

ANTICIPATED PRODUCTS: Six research articles will be submitted to professional journals, with summaries of each report published in the SKI*HI newsletter. Each completed monograph will be published in the SKI*HI series. The Project Director and Research Director will both submit papers for presentation.

Efficacy of Early Intervention: Long Term Effects

GRANT NUMBER: H023C00062 
BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/95

ABSTRACT
PURPOSE: This project will assess long-term effects of early intervention with a group of 750 infants and toddlers who had been identified with mental retardation and as being developmentally at risk and who participated in the Family, Infant, and Preschool Program (FIPP) in Morganton, North Carolina, from July 1, 1972, to July 1, 1983; these children are now between 10-15 years old.

METHOD: The project will employ a conceptual framework and analytic methodology that permits both a more explicit definition of efficacy and the adoption of a paradigm that allows the identification of the determinants of behavior change.

ANTICIPATED PRODUCTS: The research will produce a database containing the following types of information: defined variables related to the effects of early intervention and findings that could be used for policy and placement decisions. Other outcomes will be a monograph summarizing the research, presentations at conferences, and publications in newsletters and journals.

GRANT NUMBER: H023L10002
BEGINNING DATE: 11/1/91 ENDING DATE: 10/31/94

ABSTRACT
PURPOSE: The purpose of this project is to investigate the effects on students with disabilities and students without disabilities of two areas of home-school collaboration that have been significantly impacted by the school reform movement: homework and performance assessment.

METHOD: Eight research studies are proposed to address the issues of homework and performance assessment. Studies 1 and 2 will survey state and local superintendents and directors of special education to determine existing policies and practices regarding homework and performance assessment. Study 3 will be an interview of principals and teachers from rural, urban, and suburban districts in northern Illinois to determine if practices are related to policies. Studies 4 and 5 will focus on regular education teachers and students with disabilities and their parents to examine the direct and unintended side effects of these practices and the demands they place on students with disabilities and their families. Study 6 will focus on regular education teachers and students who do not have disabilities and their families to determine if schools have alternative practices for this population. Study 7 will involve the development, field-testing, and social validation of recommendations and products to enhance home-school collaboration, and Study 8 will use a series of single-subject studies to experimentally validate the recommended practices. A variety of qualitative and quantitative methodologies will be used including social validation, chi-square analyses, and ANOVAs.

ANTICIPATED PRODUCTS: Products will include a series of validated practices on home-school collaboration, field-tested manuals, and videotapes.
Fifteen subjects will be sought in specialized settings and another 15 in integrated settings. Each subject will be visited by a trained observer on four separate occasions. Subjects' behavior will be systematically recorded every 5 seconds using a data collection tool that is designed to maintain the sequence of events, identify the nature and initiator of peer interactions, and document the type of activities when subject is not interacting with a peer. A $2 \times 5$ ANOVA on repeated measures will be used to determine whether significant differences exist between the independent variables, integrated and specialized settings, and the proportion of social participation behaviors. Measures of central tendency will be utilized to describe the type, initiator, and duration of peer exchanges. Comparisons between subjects in integrated and specialized settings and these categories will utilize a Mann-Whitney U test.

ANTICIPATED PRODUCTS: Results of the study will be disseminated to parents, special educators, and early childhood/special education professionals via journal and newsletter articles and conference presentations.

**Improving Learning Through Home/School Collaboration**

**ABSTRACT**

PURPOSE: The purpose of this project is to describe the impact of education reform on the families of students with special needs at the elementary and secondary school levels, focusing on the issues of homework and performance assessment.

METHOD: The study will combine qualitative and quantitative methodologies to focus on three elements of Vermont’s new assessment system in reading, mathematics, and science in 4th and 8th grades: a uniform test, a “best piece,” and a portfolio of work completed during the school year. The sample comprises 40 students with a variety of disabilities, 20 without disabilities, and 20 at risk of educational failure. Parent-teacher focus groups; interviews with students, parents, and teachers; and teachers’ action research logs will serve as ongoing sources of data and vehicles for collaboration. Additional information will be derived from participant observation, surveys, and school records. Expected outcomes include the identification of critical elements for achieving effective collaboration between home and school for students with disabilities in a rural area, and descriptions of the relationships between these elements and assessment practices, homework practices, and the presence of “hidden instruction” from peers and family members.

ANTICIPATED PRODUCTS: Anticipated products include journal articles, conference presentations, and video presentations.
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METHOD: The work will use a multidisciplinary approach since the law itself touches upon so many facets of the child, family, and service delivery community. As there is great diversity in states’ progress towards implementation, individual states will be charted on a developmental implementation scale consisting of many elements so as to gain both a current portrait and a baseline for measuring future growth. The majority of efforts will be spent documenting success as a means of extracting the essence of that experience for the possible benefits of others.

ANTICIPATED PRODUCTS: The project will produce a reliable database resulting in a comprehensive portrait of infants and toddlers with disabilities and their families, explanatory studies, and case studies.

Programming Integration of Preschoolers (Project PIP):
Developing Peer Relationships Between Children with and Without Developmental Disabilities

GRANT NUMBER: H023C10167
BEGINNING DATE: 7/1/91 ENDING DATE: 6/30/96

ABSTRACT
PURPOSE: The study will investigate the effects of interventions designed to enhance social-communicative interaction among preschoolers with developmental disabilities.

METHOD: The proposed studies will investigate techniques for facilitating interaction among children with and without disabilities in integrated preschools. At least 40 preschoolers with developmental disabilities, and an equal number of classmates without disabilities will participate. Exchange theory will be applied to analyzing interaction patterns and to generating strategies for modifying interaction patterns to produce more acceptable outcomes for social partners and lessen the desire to terminate interactions and relationships. Some basic characteristics of peer-mediated intervention tactics will be modified, such as spreading interventions across the day, rather than conducting concentrated training sessions. Interventions will involve: 1) teaching typical peers to use ecobehaviorally-derived strategies for interaction with their disabled classmates; 2) teaching fundamental social skills to children with disabilities; and 3) a treatment package based on the functional components of these interventions. In addition, longitudinal effects will be monitored and investigations of intervention components that appear necessary to ensure that children with disabilities continue to interact with typical classmates and develop peer relationships in subsequent educational placements will be conducted. Single-subject experimental designs will be used to evaluate outcomes. The effects of intervention will be assessed with observational, sociometric, and teacher and parent rating measures. In addition to analyses of changes in the rates of social behavior demonstrated by children, conditional probability analyses of sequential data will be used to continue the process of identifying strategies that prove particularly effective in promoting sustained interaction.

ANTICIPATED PRODUCTS: The experimental procedures developed and validated in the studies will form the basis for two training manuals on: 1) the across day intervention to promote constructive social-communicative interaction in integrated preschools, and 2) facilitating social adaptation of children with disabilities during transitions from preschool. Dissemination efforts will include publication of the training manuals, research papers, papers focusing on the clinical procedures, and training workshops for practitioners.
The Impact of Federal Policy and Resulting Legislation on Family Systems

GRANT NUMBER: H023C10103  ENDING DATE: 12/14/96

ABSTRACT

PURPOSE: The overall goal of this project is to study how early intervention provided to infants and toddlers impacts families, and specifically, how families perceive these services. The study will examine three assumptions: 1) families need and welcome these services and supports; 2) early interventionists know how to validly assess family needs and develop programs to meet them; and 3) these services will enhance the developmental potential of infants and toddlers who are disabled or at risk.

METHOD: Researchers will collaborate with the University of Oklahoma Medical Center in the early identification of approximately 36 families of neonates who are at significant risk due to genetic/congenital conditions, birth trauma or prematurity, and/or combinations of maternal risk factors (e.g., age, substance abuse, AIDS, etc.). Over a 5-year period, qualitative methodologies will be used to probe the perceptions and experiences of parents (and when appropriate, siblings) of infants, toddlers, and preschoolers. Twelve families will be identified in year 1 and followed over 3 years. Twelve new families will be added each of the first 3 years. A total of three intensive, audiotaped interviews will be conducted per year for each family, including interviews conducted with a significant other outside the family but involved in the family system in order to triangulate the data collected. The first interview will be designed to probe the issues of: 1) initial communications with professionals from a variety of disciplines; 2) transitions from hospital to home; 3) contacts from and referrals to additional services and resources; 4) realizations and adjustments to the infant’s needs; 5) self-perceptions and coping; and 6) interpersonal networks. Follow-up interviews will further document the nature of services, supports, and/or resources provided to or sought by the families.

ANTICIPATED PRODUCTS: Project products will include five annual research reports, a final monograph, book, and field guidelines for parent involvement in early intervention.

The Effects of Videotaped Self-Modeling on Requesting Preschoolers with Developmental Disabilities

GRANT NUMBER: H023B10024  ENDING DATE: 11/30/92

ABSTRACT

PURPOSE: The purpose of this study is to teach preschoolers with developmental disabilities to express their wants and needs spontaneously using developmentally-appropriate linguistic structures. The study will examine the effects of videotaped self-modeling on the acquisition of spontaneous requesting. Videotaped self-modeling has the potential to be an effective procedure for teaching spontaneous requesting and the production of more elaborate linguistic structures. The study will address three major objectives: 1) to investigate the extent to which viewing oneself-as-a-model results in the spontaneous production of developmentally-appropriate requesting; 2) to investigate whether viewing self-modeling requesting in one classroom activity will result in the generalization of spontaneous requesting to other contexts; and 3) to investigate whether the use of videotaped self-modeling requesting in one classroom activity generalizes to other settings.
classroom activities; and 3) to disseminate findings and training procedures to appropriate service delivery professionals.

METHOD: Six children, two at each of three different levels of language development, will participate in the research. Opportunities for requesting will be presented during the baseline assessment to evaluate the extent of potential participants' ability to use spontaneous requests. The project will utilize observational learning through video viewing to teach developmentally-appropriate spontaneous requesting. To prepare the self-modeling videotapes, children will be prompted to perform requests in classroom situations. The children will view themselves on tape (with prompts removed) performing targeted requests correctly and independently. Performance of requests will be monitored during classroom activities after the children are provided brief, videotaped self-modeling sessions. A multiple baseline design across children and activities will be used to assess treatment effects. Self-modeling of requests will proceed on an activity by activity basis in order to assess generalization of requesting across situations.

ANTICIPATED PRODUCTS: The research will provide the basis for the student's dissertation. A report of the research findings and a practical guide for implementation of videotaped self-modeling programs will be submitted to professional journals. Presentations will be made to various audiences, including speech-language pathologists, early childhood special educators, and other researchers.

A Longitudinal Follow-Up of Graduates From Two Preschool Instructional Models

GRANT NUMBER: H023C80024
BEGINNING DATE: 7/1/88 ENDING DATE: 6/30/93

ABSTRACT

PURPOSE: The project is a 5-year prospective follow-up study of elementary school children who have mild to moderate disabilities and who participated in a 4-year efficacy-of-intervention study comparing two highly contrasting preschool instruction models—an academically based direct instruction model and a cognitively based mediated learning model. The goal of the study is to determine whether the initial differential program effects are maintained beyond preschool, whether differences tended to increase or decrease, which developmental areas were differentially affected, and so forth.

METHOD: Scores on standardized achievement tests and maturity scales will be analyzed using repeated measures analysis of variance, multiple regression analysis, and chi-square analysis.

ANTICIPATED PRODUCTS: Project results will be disseminated to local, state, and national audiences.
The Generalized Effects of Early Language Intervention

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GRANT NUMBER: H023C10031
BEGINNING DATE: 8/1/91
ENDING DATE: 7/31/94

ABSTRACT

PURPOSE: This project deals with early naturalistic language intervention and seeks to analyze the generalized effects of milieu teaching on the communication skills of preschool children.

METHOD: A series of studies will be conducted analyzing the generalized effects of milieu teaching on children's communication skills. The studies will provide a multicomponent analysis of the changes in the linguistic and pragmatic aspects of communication by young children during intensive early language intervention. Subjects will be preschool children selected according to the following criteria: 1) productive language skills in the 18- to 30-month range; 2) evidence of at least a 6-month receptive delay and a 12-month productive delay; 3) productive use of at least 10 spoken words; 4) normal hearing; 5) tested IQ scores indicating mild to moderate mental retardation; and 6) parental consent. Study 1 will involve nine children to achieve the following purposes: 1) analyze primary effects of milieu teaching during training and maintenance; 2) assess stimulus class, recombinatory, and cross-modal generalization; and 3) assess generalization across persons and settings with three different conversational partners (teachers, parents, peers). Study 2 will involve six children to determine the extent to which training significant others (teachers, peers, and parents) can increase the generalization resulting from enhanced milieu teaching and improve the social-communication interactions between young children with disabilities and their significant others. Study 3 will involve six children and will contrast the effects of direct milieu teaching by conversational partners with those found when milieu teaching was followed by training conversational partners to facilitate functional communication (Study 2).

ANTICIPATED PRODUCTS: Results of the studies will be disseminated at regional and national conferences and through journal publication. Based on procedures and results from the studies, project staff will provide consultation to local early childhood special educators designing programs for individual children.

A Descriptive Study of the Development of Play by Deaf and Hearing Infants

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GRANT NUMBER: H023A10005
BEGINNING DATE: 10/1/91
ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: This study will examine the play behaviors of infants at ages 9, 12, and 18 months who are deaf and whose mothers are deaf. The investigators will compare these behaviors with existing data about play behaviors of infants who are deaf with hearing mothers and of hearing infants with hearing mothers. Findings should improve assessment procedures using free play observation.

METHOD: Mothers and infants (n=18) were videotaped in an unstructured play situation. Ten-minute samples were then analyzed for: (1) frequency and symbolic complexity of vocal, visual, and tactile communicative expressions produced by mothers and infants; and (2) semantic contingency between mothers and infants. Additionally, mother-infant interaction
characteristics will be rated. Multivariate analyses of variance will be used to identify group and age differences on the various measures. The coding system will also allow for qualitative descriptions of dyadic functioning. A measure of play performance will be selected to serve as a criterion variable and hierarchical multiple regressions will be conducted using as predictor variables selected measures of mother-infant interaction, communicative performance, and background characteristics.

ANTICIPATED PRODUCTS: The results of the study will be disseminated through publications and conference presentations.

Institutions of Early Motor Intervention Procedures

GRANT NUMBER: H023C10119
BEGINNING DATE: 9/1/91 ENDING DATE: 8/30/96

ABSTRACT

PURPOSE: The project will investigate the relative effectiveness of two motor intervention approaches with children with Down syndrome and children with cerebral palsy: the Neurodevelopmental Therapy (NDT) approach, and the Peabody Developmental Motor Program (PDM).

METHOD: Interventions will be conducted with 60 children with Down syndrome and 60 children with cerebral palsy (ages 6 to 12 months at the beginning of the study) during the first 3 years of their lives. Subjects will come from approximately 12 different sites from the southeastern portion of the United States, each of which provides only one of the two treatment models being investigated. Treatments will be administered by the regular interventionists at these sites, who have been trained to proficiency in the model they are required to implement. The study is based on a pre-post multifactorial design that will assess the relative contribution of several variables to two major outcomes of intervention services: 1) the level of family involvement with their child after 12 and 24 months of services, and 2) the fine and gross motor gains that the children have attained after 12 and 24 months of intervention. Four factors will be used to assess family involvement in the child's intervention program including the amount of time that primary caregivers engage in therapeutic motor exercises with their child and the style of the primary parent/caregiver when interacting with the child. Both quantitative and qualitative procedures will be used to assess motor outcomes that children attain. In addition, the study will determine whether the effects of these curricula are replicable across sites. A cost benefits analysis will examine the magnitude of motor gains that children attain in motor intervention programs as a function of the monetary and family resource expenditures that are required to produce these gains.

ANTICIPATED PRODUCTS: Dissemination activities will include a technical report to be advertised for distribution after 12 months of intervention data, state and national conference presentations, and journal articles.
Investigation of Family Focused Early Intervention Services

GRANT NUMBER: H023C00071  
BEGINNING DATE: 9/1/90   ENDING DATE: 8/31/93

ABSTRACT

PURPOSE: This project will investigate two issues that are central to the family focused agenda of P.L. 99-457.

METHOD: The two issues include: 1) Identifying factors that contribute to the family focused orientation of existing intervention programs for children with disabilities between birth and 3 years of age. The study will focus on how the pattern and intensity of family service activities provided in early intervention vary as a function of the characteristics of local intervention programs and the families that are served; and 2) Determining the kind of impact that family focused services have on parents and their children. A sample of 100 children, representing at least 30 different intervention programs, will be followed through the course of 12 months of intervention.

ANTICIPATED PRODUCTS: Data obtained will be an important resource for helping programs identify factors that either mitigate or accentuate the family service components of their programs.

Project IFSP: An Analysis of the IFSP Process with Families and Staff

GRANT NUMBER: H023A00075  
BEGINNING DATE: 9/1/90   ENDING DATE: 2/28/92

ABSTRACT

PURPOSE: This project will evaluate the impact of P.L. 99-457 on families and early intervention personnel during the first year of implementation.

METHOD: Qualitative research methods will be used to explore the experience of participating in IFSP development for both families and staff. Ethnographic interviews will be conducted with families and staff from Iowa intervention programs. A linguistic analysis of the transcribed interviews will provide common and divergent domains of meaning that will describe the issues. The responses of the ethnographic interview will be compared to questionnaires that assess how families and staff perceive the IFSP process.

ANTICIPATED PRODUCTS: The findings of this research will be used to improve the process of developing IFSPs in programs in Iowa and will be disseminated through conference presentations and written journal articles.

Prenatal Cocaine Exposure and Social Development of Young Children: A Field Initiated Research Project

GRANT NUMBER: H023C10092  
BEGINNING DATE: 9/1/91   ENDING DATE: 8/30/96

ABSTRACT

PURPOSE: The purpose of this project is to conduct a 5-year program of descriptive and intervention-based research that increases both knowledge
regarding social and other developmental outcomes for young children exposed prenatally to cocaine and resources for providing early intervention to this group.

METHOD: Subjects for all studies will be infants and young children (6 months to 6 years of age) who were exposed to cocaine prenatally and (for Study 1, the longitudinal study, only) non-exposed matched controls. Cocaine-exposed children will be recruited primarily by contacting mothers served by the Mother-Baby Chemical Health Program of Group Health, Inc. in the Minneapolis-St. Paul metropolitan area. Throughout the seven studies, specific instruments have been selected to provide three different types of measures of the social development of children exposed prenatally to cocaine: 1) a general, performance-based outcome measure of social competence; 2) measures of the type, quantity, and quality of social interactions in home and care/school settings; and 3) direct assessment of other aspects of the child's development. Study 1, involving 50 drug-exposed children and 50 non-exposed matched controls, will consist of a 5-year, longitudinal descriptive analysis of social and other developmental outcomes. Four experimental studies (focusing in turn on environmental arrangements, teacher-mediated interventions, affection training activities, and parent training to promote social interaction competence) will each produce a set of empirically valid intervention procedures. In the final 2 years of the project, these separate interventions will be combined into a comprehensive treatment package, and the effects of this package will be evaluated for both short- and long-term effects on the social interaction of young children. Data analysis will include ANOVAs and MANOVAs and multiple baseline across subjects designs for the intervention studies.

ANTICIPATED PRODUCTS: Dissemination activities will be directed at early intervention personnel and researchers and will include journal articles, conference presentations, training materials, and teacher manuals.

Maternal Responsibility and Child Competency in Deaf and Hearing Children

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PURPOSE: The project will examine the relationship between characteristics of maternal responsibility and the impact those characteristics have on the competency level of children who are deaf and children who are hearing.

METHOD: To achieve project goals, data will be collected from: 1) face-to-face interactions between 6- and 9-month-old infants and their mothers; 2) communication/joint attention strategies observed during a free play situation at 9, 12, and 18 months; 3) maternal instructional style and responsiveness to infant attention during a structured teaching task at 18 months; and 4) assessments of infant communicative, social, and cognitive performance at 3 years. Comparisons will be made among four combinations of mothers who are hearing or who are deaf with infants who are either hearing or deaf and will be based on videotapes and coding systems which have previously been developed. It is intended that the research results will provide a description of the dynamics of parental interactions with infants and parents who are deaf or hearing, which will be useful in developing guidelines and recommendations for professionals in the field of early intervention and for parents of deaf children.
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ANTICIPATED PRODUCTS: The project intends to disseminate a research monograph based on the final report, a book providing practical information for a nonresearch oriented population, several chapters and articles, presentations at conferences and direct inservice training to service providers.

Prenatal Cocaine Exposure and Mother-Infant Interactions

GRANT NUMBER: H023B10017
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/92

ABSTRACT

PURPOSE: The goal of this project is to develop and implement a systematic and reliable observation system for the purposes of describing the early interactions between a group of prenata lly cocaine-exposed infants and their mothers, as compared to a matched sample of normally developing infants and their mothers.

METHOD: Primary questions to be addressed in this project include: 1) Do measures of mother-infant synchrony, reciprocity, and sensitivity differ between groups and over time? 2) Do specific target behaviors and/or rates of interaction differ between groups and over time? 3) What functional relationships exist between environmental variables (e.g., location, activity) and specific target behaviors (e.g., child state, initiation)? and 4) Do developmental outcomes differ for the two groups at 12 months? Subjects will include a minimum of 15 prenatally drug-exposed children and an identical number of non-exposed matched controls. Two different sets of measures will be obtained for this study. First, the mother-infant observational system will be conducted two times for each subject: once at 6 months of age and once at 12 months. These assessments will include interaction rates and synchrony scores obtained from 20-30 minute observations in the child's home (or a home-like setting if the child's home appears to be unsafe). Second, the Battelle Developmental Inventory will be administered shortly after the 12-month assessment. Analyses will be conducted both within and between age groups and will include ANOVA, MANOVA, and other procedures.

ANTICIPATED PRODUCTS: Planned dissemination methods include publications and presentations targeted to two groups: early intervention personnel (special education and related services personnel), and other researchers.

The Abilities Project: Developing Descriptors for Characterizing Infants and Preschoolers with Handicaps

GRANT NUMBER: H159A00008
BEGINNING DATE: 10/1/90 ENDING DATE: 6/30/92

ABSTRACT

PURPOSE: The purpose of this project is to develop and evaluate the usefulness of alternative means of characterizing infants and preschoolers with disabilities, using a functional approach designed to characterize children along common dimensions of abilities and disabilities, independent of etiological basis and/or manifestations of disabling conditions.
METHOD: A series of studies will be conducted to test the utility of the ABILITIES Index, a profile designed to describe the functional abilities and limitations of children in nine areas: audition, behavior, intelligence, limbs, intentional communication, tonicity, integrity of physical status, eyes, and structural status. Four types of studies are proposed: reliability, criterion, consumer validation, and descriptive.

ANTICIPATED PRODUCTS: The four studies will provide information about the usefulness of an alternative system for characterizing infants and preschoolers with disabilities.

Preventive Intervention: Process, Transition, and Early Adolescent Outcome

GRANT NUMBER: H023C00035
BEGINNING DATE: 6/1/90 ENDING DATE: 11/30/92

ABSTRACT

PURPOSE: This project will determine if evidence of efficacy extends into adolescence from an early intervention program, and to study the process through which aptitude, instruction, and environment are related to educational outcomes in high-risk adolescents at a stressful point of school transition.

METHOD: The 63 children and their families in Project CARE and a matched group from the general population will be subject to observation, tests, self-reports, ratings, and interviews when the children are 12 years of age.

ANTICIPATED PRODUCTS: The expected research product is a description of the nature of any long-term effects of this early intervention, as well as identification of which children and families benefit most. Plausible pathways to account for differential outcomes will be explored and described.

Parent Consultation and Competency Based Training: Modifying Noncompliance in Preschool Children

GRANT NUMBER: H023B10023
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: The purpose of this project is to evaluate the efficacy of a model of behavioral consultation that integrates the process of behavioral case consultation with the content of competency-based parent training (i.e., behavioral technology consultation). This treatment approach is designed to modify child noncompliance for a target group of preschool children (N = 12) with specific difficulties initiating and completing a request made by their parents. The competency-based training model will be evaluated primarily in regard to: 1) parent acquisition of specific behavior management skills; 2) maintenance effects exhibited for each acquired skill; 3) changes in the child’s behavior as a function of parent skill acquisition; 4) social validity; and 5) treatment acceptability.

METHOD: The study will document the process and content of behavioral consultation with parents. This model involves parents in the actual intervention plan developed for their child and provides them with knowledge of basic behavioral principles and strategies. These strategies are the basis
for developing skills parents can use to identify, monitor, and bring about changes in behavior. A multiple baseline research design and multiple outcome measures will be used to corroborate expected improvements in parent skills and child behavior following treatment.

ANTICIPATED PRODUCTS: Observations of child behavior, parent reports of child compliance, and parent ratings of treatment acceptability and satisfaction with the training program will be obtained. An 8-week follow-up assessment of parent skill maintenance and child behavior will be completed. The study will lead to the refinement of several data collection devices that should be immediately useful to others introducing preschool consultation and intervention services: a treatment package, treatment integrity checklists and rating scales, and prototype of a preschool intervention and consultation mode. Structured interview scripts, basic treatment designs, and decisions about treatments will be synthesized in research reports designed for educational and psychological practitioners.

The Effects of Tactile Intervention on Preterm Infants Who Are Less Than 38 Weeks Conceptual Age and Still Residing in a Hospital Neonatal Intensive Care Unit

GRANT NUMBER: H023B10071
BEGINNING DATE: 12/15/91 ENDING DATE: 7/14/92

ABSTRACT

PURPOSE: The proposed study will examine the effect of tactile intervention on healthy, preterm infants less than 38 weeks gestational age and hospitalized in a neonatal intensive care unit.

METHOD: Twenty subjects will be recruited from the Neonatal Intensive Care Unit (NICU) at the University of Kentucky/Chandler Medical Center. Healthy preterm infants who have reached a conceptional age (gestational age plus chronological age) of 28-37 weeks and have been in the NICU for at least one week will be recruited. Infants will receive tactile intervention - specifically containment, which requires the interventionist to place his/her hands on the infant's trunk and extremities. The infant is firmly supported with tonic input and extremities are maintained in the flexed position. To examine the effects of containment, a within-subject, counter-balanced design will be utilized which repeats the tactile intervention and a control phase at 28, 30, 32, and 39 weeks conceptual ages. During these interventions, behavioral and physiological responses will be recorded. MANOVA will be the primary analysis used to examine the results in both a univariate and multivariate ways.

ANTICIPATED PRODUCTS: Study results will add to existing literature and have the potential to change NICU practices.
The Use of Template Matching As a Viable Strategy for Assessment and Intervention for Preschool Students with Disabilities

GRANT NUMBER: H023B00038
BEGINNING DATE: 8/1/90 ENDING DATE: 1/31/92

ABSTRACT
PURPOSE: This project will investigate an assessment methodology that will promote successful transitions from preschool to kindergarten for children with disabilities.

METHOD: The study will utilize a template-matching strategy to assess student behavior and the future placement environment. Interventions will be developed from the assessments to align student behaviors and future environments. Implementation of these interventions will be conducted prior to students' placement into kindergarten. The viability of template matching as a useful assessment/intervention strategy will be evaluated by examining the differential success of three groups of students: a control group, an assessment-only group, and an assessment-intervention group. Direct observations will be conducted both as part of the assessment process and to validate changes in student behavior after intervention.

ANTICIPATED PRODUCTS: Research reports will be published in education journals, presentations will be made at professional conferences and to teachers and administrators, inservice training workshops will be conducted, and an inservice training manual will be developed.

Maternal Perceptions and Infant Behavior

GRANT NUMBER: H023B10021
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT
PURPOSE: The project will conduct a follow-up study of infants identified as cocaine exposed in utero in order to achieve two purposes: 1) to identify important factors that predict optimal socio-behavioral and cognitive outcomes by documenting interindividual differences among infants exposed prenatally to cocaine; and 2) to document the dynamics of the mother-infant relationship and to determine its relationship to child developmental outcomes.

METHOD: In keeping with Sameroff's transactional model, this study will consider the child characteristics as resulting from the series of dynamic and reciprocal interactions that occur between the child and the environment created by the family. The variables to be considered include maternal locus of control, maternal perceptions of and expectations for child behaviors, child development progress, family demographic variables, medical records, and timing and toxicity of drug use. The sample will include 50 mother-infant dyads recruited from a clinic for cocaine-exposed infants at Wake Medical Center in Raleigh, NC. The study will involve a parent interview, a parent rating of child behavior, and interviews to assess mothers' perceptions of their infants' behavior and the mothers' locus of control. Children will be assessed at 2 weeks, 6 months, and 1 year. The Brazelton Neonatal Behavioral Assessment Scale will be administered at 2 weeks, and the Bayley Scales of Infant Development will be administered to measure.
the infants' cognitive development. A multiple regression procedure will be used to determine the total and individual contributions of the variables on developmental outcomes.

ANTICIPATED PRODUCTS: Findings will be disseminated as part of the student investigator's doctoral dissertation, via presentations and poster sessions at regional and national conferences, and in journal articles.

Understanding and Improving Long-Term Outcomes for Children with Autism

GRANT NUMBER: H023C10078
BEGINNING DATE: 7/1/91          ENDING DATE: 6/30/95

ABSTRACT

PURPOSE: The overall goal of this project is to provide a school and home-based ecobehavioral assessment and subsequent functional analysis of the current status of autistic children 6 to 15 years of age who received comprehensive early intervention services. The investigators will complete a comprehensive school and home portrayal of children who have been away from intervention for 1 to 9 years to find and analyze those events and settings that are associated with important outcomes for these children.

METHOD: This 4-year project will involve a two-stage series of studies. During the first 2 years, a school-based ecobehavioral analysis will be conducted on 35 autistic children who were participants in an experimental early intervention program. A variety of measures will be used to assess outcomes such as deviant behavior reduction, cognitive growth, and communicative skill growth. The Code for Instructional Structure and Student Academic Response (CISSAR) will be used to record children's academic, social, and survival skill performance during classroom activities in the following settings: regular class (18 students), autism classes in segregated facility (5 students), and LD/BD resource in regular building (12 students). Study 2, focusing on the same subjects as Study 1, will involve observational measures and interviews to evaluate home-based variables including demographics, adult mental health status, adult stress, and incidence of crises. Study 3 will involve the combination and recombination of various data “chunks” from Studies 1 and 2 to test the fit between existing conceptualizations of long-term outcomes for children with autism and the entire data set on school and family predictors. The structural equation modeling strategy will also permit an analysis of the interdependence between school and family predictors. Based upon the correlational analyses in Studies 1-3, a total of six behavior analytic studies will be conducted involving the three most predictive school and family contemporaneous variables that are subject to experimental manipulation. These six intervention studies will focus on four children (or families) each, and will employ a multiple baseline across subjects design. Cost assessments will be conducted for all six interventions. Expected outcomes for the entire study include a comprehensive listing of historical and contemporaneous school and home variables that are associated with autistic children's follow-up status, and a validated set of school and family-based intervention procedures for improving the follow-up status of children with autism.

ANTICIPATED PRODUCTS: Dissemination efforts will include research-based manuscripts, conference presentations, a book, workshops, a brochure, newspaper presentations, and classroom instructional products to be directed at researchers, teachers, parents, administrators, teacher educators, and the general public.

GRANT NUMBER: H159A10004
BEGINNING DATE: 1/1/91 ENDING DATE: 12/31/93

ABSTRACT
PURPOSE: This project will study barriers to full implementation of Part H of P.L. 101-476 and address the development and implementation of a statewide (Michigan), comprehensive, coordinated, collaborative, multidisciplinary, interagency system of early intervention services to infants and toddlers with disabilities or developmental delay and their families. It will consider what options, alternatives, and strategies would be most effective in achieving full implementation.

METHOD: The study will employ a utilization-focused evaluation design that concentrates on involving the "stakeholders" in the actual evaluation process. The first Phase includes planning and instrument development and the convening of a core advisory "stakeholder" group. Phase II will involve the distribution of a questionnaire to more than 500 parents and professionals. This questionnaire will be designed to elicit respondents' perceptions of resources and barriers to optimal service provision. In Phase III, several smaller stakeholder groups will meet to focus on specific barriers and to identify possible solutions. The last phase will involve a meeting of the original stakeholder group with state policy makers to devise specific strategies.

ANTICIPATED PRODUCTS: The project will produce a final report of study findings addressing the specific goals, objectives, and study questions of the evaluation project.

Effectiveness and Efficacy of Individualized Family Service Plans

GRANT NUMBER: H023A10086
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT
PURPOSE: This project includes four research studies designed to examine the efficacy and effectiveness of various approaches to developing and implementing the Individualized Family Service Plans (IFSPs).

METHOD: This project will be located at the Family, Infant, and Preschool Program (FIPP) located in Morganton, North Carolina. Study 1 will use a multiple baseline design across 14-16 early intervention practitioners to establish the relative effectiveness of a flexible approach to developing IFSPs compared to a more static approach. Study 2, involving the same subjects as Study 1, will use a within group ANOVA design to compare the relative efficacy of different approaches to developing IFSPs. Study 3 will involve 60 early childhood practitioners from 6 different programs in 6 states in which different versions of the IFSP have been used. A between group ANOVA design will be used to compare different processes for developing IFSPs. The purpose of Study 4 is to establish whether professional training influences the ability to develop and implement IFSPs. A between group ANOVA design will be used to compare data collected on professionals trained primarily in terms of child-level intervention (e.g., speech pathologists) with data collected on professionals trained primarily in terms of...
family-level intervention (e.g., social workers). Subjects will include 24-30 FIPP early intervention practitioners.

ANTICIPATED PRODUCTS: Dissemination activities will be targeted to practitioners, administrators, researchers, and the general public. Six major mechanisms will be used: information research centers (e.g., ERIC), electronic information systems, dissemination mailings, journal publications, professional and parent newsletter articles, and conference presentations at state, regional, and national meetings.

**Enhancing Prelinguistic Development: A Pilot Study**

GRANT NUMBER: H023A10009
BEGINNING DATE: 1/1/92 ENDING DATE: 3/31/93

**ABSTRACT**

PURPOSE: This pilot project has five objectives: 1) to modify and operationalize several well researched early language intervention techniques for use as prelinguistic intervention procedures; 2) to operationalize other techniques that have been hypothesized as or already used as prelinguistic intervention procedures; 3) to establish the reliability of independent and dependent measures appropriate for analyzing prelinguistic intervention effects; 4) to conduct an initial investigation of the short-term generalized effects of prelinguistic intervention; and 5) to disseminate project results. The project is targeted at children under 3 years of age who show early evidence of mild to moderate mental retardation.

METHOD: Following recruitment of five children whose prelinguistic communication skills are like those of typically developing 9- to 12-month-olds and baseline assessment of their skills, each child will receive several months of prelinguistic intervention (20-30 minutes daily, 4 times per week) based on a milieu teaching model. A 5-legged multiple baseline design across subjects will be used to obtain experimental control.

ANTICIPATED PRODUCTS: A manuscript reporting study results and a practitioner-oriented manuscript will be submitted to appropriate journals. Findings will also be disseminated at presentations of the Division of Early Childhood of The Council for Exceptional Children and the American Speech-Language-Hearing Association.
Effectiveness Indicators for Collaborative Efforts in Special-General Education Co-Teaching Situations

GRANT NUMBER: H159F10002
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: The Colorado Department of Education will use a qualitative research design to develop a model, critical attributes and effective evaluation tools for national, state, district and individual use to understand and improve a specific collaborative activity, co-teaching between regular and special education teachers.

METHOD: Phase 1 will focus on development of a conceptual framework and design of initial instrumentation. A definition and working model for co-teaching will be developed, and critical attributes (e.g., teacher factors, environmental factors, administrative factors) which may be associated with co-teaching effectiveness will be identified. In Phase 2, data will be collected to identify the most important positive and detrimental factors associated with special-general educators’ co-teaching situations. Fifteen co-teaching teams (5 elementary, 5 middle school/junior high, 5 high school) from several different school districts in Colorado will be interviewed, and each team will be observed three times. In Phase 3, all data will be analyzed to identify the most salient factors associated with co-teaching, and tools will be refined which should help researchers, administrators, and teachers evaluate whether various indicators of effectiveness are present in a given situation. Finally, the Research team will pilot test tools that have been developed and will finalize and disseminate final reports of findings and recommended evaluation tools.

ANTICIPATED PRODUCTS: Products that will result from this project include: a model of co-teaching that addresses multidimensional factors; assessment instruments; descriptive data on co-teaching arrangements; and, methodology and tools to carry out a large scale study of the effects of co-teaching on students with disabilities. Dissemination plans include articles in regular and special education journals; presentations at local, state, and national conferences; summary articles in practitioner magazines; and inservice presentations.

Approaches and Choices to Developing Social Competence in Students with Disabilities

GRANT NUMBER: HS90049001
BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/93

ABSTRACT

PURPOSE: To develop a framework within which school personnel can consider the range, nature, and requirements of alternative approaches and models for developing social competence by children and youth with disabilities.

METHOD: Activities include the review and synthesis of research on social skills training, the in-depth examination of social skills training approaches and models and their implementation, and the development of information packages regarding social skills development programs.

ANTICIPATED PRODUCTS: The project will produce a decision-making framework, a description of models and programs, and a distribution plan.
Home-School Cooperation in Social and Motivational Development

GRANT NUMBER: H023T80023
BEGINNING DATE: 9/1/88 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: The project proposes to design, implement, and evaluate an intervention program directed toward positively influencing the self-esteem and confidence, sense of autonomy and independence, and social development and motivation of children with learning disabilities.

METHOD: A comprehensive intervention program will be developed to include strategies aimed at changing the task, authority, reward, grouping, evaluation, and time structures of children’s classroom and home experiences. The program strategies are integrated within a theoretical perspective that places special importance on creating overlapping school and home experiences for the child. The program will be systematically evaluated through quasi-experimental, cross-sectional, and longitudinal designs to determine its preventive and remedial effectiveness.

ANTICIPATED PRODUCTS: The project will develop an intervention program with established information regarding effectiveness and utility and information on specific intervention strategies and techniques that can be easily assimilated into ongoing school and classroom activities.

Treatment in Early Intervention: A Controlled Longitudinal Comparison of Treatment Models

GRANT NUMBER: H023C00056
BEGINNING DATE: 7/1/90 ENDING DATE: 6/30/95

ABSTRACT

PURPOSE: This project will study the relative merits of integrated treatment and isolated treatment.

METHOD: Children with developmental disabilities at a university-based mainstreamed child care facility will be randomly assigned to one of the treatment conditions. The subjects will be followed for 1 to 4 years. Additional sites will be used to test the replicability of the design in the 2nd, 3rd, and 4th years.

ANTICIPATED PRODUCTS: The results of this study will provide teachers, administrators, and policy makers with the information needed to guide them in the most effective model for delivering occupational therapy, physical therapy, speech and language therapy, and special education.
Incorporating Phoneme Awareness Into Classroom Reading Programs: A Comparison of Special Education Referral Rates

GRANT NUMBER: H023N10003
BEGINNING DATE: 1/1/91       ENDING DATE: 12/31/94

ABSTRACT

PURPOSE: The project is designed to investigate the comparative effects on special education referral rates of including a phoneme awareness component in kindergarten, developmental-first, and first grade early reading programs.

METHOD: Six Chicago Public Schools will participate in the project: two that follow the traditional basal reading program, two in transition from basal to whole language, and two known to be whole language schools. Kindergarten, developmental-first, and first grade teachers from approximately 30 classrooms will participate in inservice training focusing on either phoneme awareness (treatment condition) or the literacy interests of the participating teachers (control condition). Results of the phoneme awareness intervention will be evaluated over a 3-year period with children determined to be at risk for reading disabilities. Data will be analyzed to determine if children in the two conditions (phoneme awareness component vs. control) differ on reading and writing measures and to what extent any differences are present beyond the first year. Information will also be gathered on special education referral rates, prereferral intervention strategies, and school success.

ANTICIPATED PRODUCTS: Dissemination activities will include journal articles, conference presentations, and workshops for elementary school teachers.

Research on General Education Social Studies Curricula

GRANT NUMBER: H023D00003
BEGINNING DATE: 9/1/90       ENDING DATE: 8/31/93

ABSTRACT

PURPOSE: This project will analyze general education curricula in social studies for K-8 to gain a clearer understanding of the scope, sequence, and presentation of content that produce effective learning in mainstream students.

METHOD: Implementation of the program will include identification, collection, and analysis of commonly used mainstream social studies curricula and analysis of a variety of teachers’ beliefs and practices regarding social studies instruction in a number of K-8 classrooms. It will also include identification of characteristics of students with learning disabilities that facilitate or impede their successful integration into mainstream social studies classes at elementary and middle school levels and their successful mastery of the social studies content presented in those classes.

ANTICIPATED PRODUCTS: The project will develop and field-test a set of guidelines/prototype units of instruction for social studies content. The final set of guidelines/prototype units related to regular education social studies in grades K-8 will be disseminated to textbook publishers, school district textbook adoption committees, and teachers.
Cognitive Processing Demands of Signed English &
American Sign Language in Deaf Children

GRANT NUMBER: H023B10020
BEGINNING DATE: 10/1/91          ENDING DATE: 1/31/93

ABSTRACT
PURPOSE: This study is designed to compare two linguistic instructional media, Signed English and American Sign Language (ASL), with respect to their relative cognitive demands and effects on learning in students who are hearing impaired.

METHOD: Forty 5th- and 6th-grade children who are deaf will perform two simultaneous tasks, paired associate learning and finger-tapping, so that the relative processing demands of Signed English and ASL may be compared. The logic for using this dual task procedure lies in the prediction that processing of paired associates in the two media will interfere with finger-tapping performance. The paired associate learning task will incorporate signed elaborations of noun pairs in Signed English and ASL. Noun pairs will vary according to their accessibility to relevant schematic events. Both finger-tapping interference and number of items recalled correctly will be subjected to a five-way mixed analysis of variance.

ANTICIPATED PRODUCTS: Proposed dissemination efforts include publication in a journal and presentation at a major conference for educators of students who are deaf.

Self-Efficacy Intervention Research

GRANT NUMBER: H023T80024
BEGINNING DATE: 9/1/88          ENDING DATE: 8/31/92

ABSTRACT
PURPOSE: Using a social learning theory model, the project proposes to identify effective intervention strategies to help children with learning disabilities become self-efficacious and to reduce their acquisition of negative self-concepts and maladaptive attributions and to help children at high risk for school failure and poor self-efficacy.

METHOD: Cross-sectional and longitudinal intervention studies will be conducted with children in grades K-3 who are considered to be at risk prior to their having been identified as learning disabled. Studies will also be conducted with children in 4th through 6th grade labeled as learning disabled who demonstrate maladaptive self-perceptions.

ANTICIPATED PRODUCTS: A self-efficacy intervention package for teachers, parents, and other professionals.

Computation Research and Intervention

GRANT NUMBER: H023C90123
BEGINNING DATE: 8/1/89          ENDING DATE: 7/31/92

ABSTRACT
PURPOSE: This project will conduct a programmatic inquiry concerning arithmetic computation on whole numbers among children with mild disabilities.
METHOD: The project will focus on: 1) the acquisition of a developmental database that will examine growth across ages and determination of the variability that exists among response patterns of children at different ages; 2) development of a procedure for the diagnosis of children who manifest the most severe deficits in arithmetic computation; 3) comparison of effectiveness of two approaches to instruction and curriculum organization in arithmetic computation; and 4) the study of the extent to which children can develop their own materials/files and use these in microcomputer activities.

ANTICIPATED PRODUCTS: A database on developmental traits of children with mild disabilities in arithmetic computation, a diagnostic protocol for appraisal specialists, a set of instructional procedures such that any operation on whole numbers can be taught independent of any other operation, and a program of microcomputer routines to demonstrate a child’s proficiency.

Textbook Adoption Processes and Criteria and the Implications for Integrating Children with Disabilities Into Mainstream Education

ABSTRACT
PURPOSE: This project will study textbook adoption processes and selection criteria for regular and special education in order to determine how the needs of students with disabilities are considered in these processes and criteria, and to identify opportunities for greater consideration of the educational needs of these students.

METHOD: The 18-month first phase of the project will include a comprehensive review and analysis of the current procedures and criteria being used for textbook adoption and case studies to document those procedures and criteria more fully. The involvement of special education in textbook adoption processes will be a particular focus of these activities. A 6-month Phase 2 option period will be exercised if the information and guidelines documented at the end of Phase 1 demonstrate substantial promise for contributing to textbook adoption procedures and criteria that consider the needs of diverse learners.

ANTICIPATED PRODUCTS: Based on Phase 1 activities, the contractor will develop a report that describes the variability of current textbook adoption procedures and criteria, analyzes the issues/gaps related to these procedures and criteria, and outlines recommended guidelines or future activities to facilitate consideration of the diverse needs of learners with disabilities in the selection of textbooks. Information will be presented at a conference of the targeted stakeholder groups who are involved in the textbook selection process.

Attention Deficit Disorder Intervention Center

ABSTRACT
PURPOSE: This project establishes a Center to organize, synthesize, and disseminate the current knowledge base on interventions for children with attention deficit disorder (ADD).
METHOD: The Center will obtain input from researchers, practicing educators, and parents to identify critical issues related to interventions for children and youth with ADD. Current research will be organized and synthesized including examination of the methodological rigor of relevant findings. Syntheses based on critical issues will be made accessible to professionals and nonprofessionals in appropriate formats. The Center will participate in conducting a national forum on ADD and will develop and implement procedures for disseminating products to researchers, educators, and parents.

ANTICIPATED PRODUCTS: Anticipated products include research syntheses, an annotated bibliography, and a final report.

Model School Development for Educating Students with Disabilities in General Education Settings

GRANT NUMBER: H023F80027
BEGINNING DATE: 9/1/88 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: The project will develop, implement, and evaluate a model bringing together general and special education professionals at the building level to engage in problem-solving and strategy development for educating students with disabilities in general education settings.

METHOD: At one elementary and one high school, 10 general and special education professionals will meet weekly for 90-minute problem-solving sessions concerning school organization, professional development, family-school collaboration, the learning environment, instructional technology, and curriculum-based assessment. After one year, these schools will implement the models they have developed and will provide a similar plan to another elementary and high school. Measures of student achievement, self-concept, teacher concerns, parent involvement, instructional environment, and normative indicators will be compared for the schools.

ANTICIPATED PRODUCTS: A manual for replicating the planning model and case studies of each of the four institutions will be produced.

Responsible Reintegration in Reading with Transenvironmental Programming, Curriculum-Based Measurement, and Classwide Peer Tutoring

GRANT NUMBER: H023C10086
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/94

ABSTRACT

PURPOSE: This 2nd year of a 3-year project will build on Year 1 efforts which developed a databased transenvironmental procedure for transitioning elementary grade students with disabilities from resource rooms to mainstream classrooms. The transition procedure 1) identifies skills and behaviors necessary for successful transition, 2) generates strategies for how these skills and behaviors should be taught, and 3) specifies a problem-solving collaborative relationship between special and general educators. Two versions of a classwide peer tutoring program (with and without an individualized, curriculum based measurement component) in
reading were also developed and evaluated. During Year 2, the most effective and efficient reintegration procedure will be evaluated.

METHOD: Twenty students with disabilities and their special education and general education teachers (N=40) will be followed in intensive case studies, beginning with their identification as reintegration candidates and ending no sooner than 6 weeks following their return to mainstream reading classrooms. The reintegration procedure identified during Year 1 as effective and efficient will be implemented with half the students and their teachers, who will be trained in the approach. The remaining students and teachers will serve as controls. Teacher satisfaction will be evaluated by means of four teacher rating measures. A variety of measures will evaluate student self-concept, social adjustment, student satisfaction, extent of reintegration, and student achievement.

ANTICIPATED PRODUCTS: Products will include research reports on the effects of CBM and deliberate, systematic reintegration, research reports on the effects of type of Classwide Peer Tutoring (with and without an individualized CBM-based instructional component); research reports on the effects of a restructured mainstream reading peer tutoring program and deliberate systematic reintegration; and a manual for training teachers and support staff in use of these methods.

Redesigning Education for All Children: Project Reach

GRANT NUMBER: H023F80005
BEGINNING DATE: 11/1/88 ENDING DATE: 10/31/92

ABSTRACT

PURPOSE: This project will develop, implement, evaluate, and disseminate a school model for increasing the capacity of middle schools to accommodate diversity, including students with disabilities, within general education settings. Key components include classroom management strategies to increase academic learning time; mainstream assistance teams; specific interventions for modifying behaviors of problematic students; academic instructional interventions in language arts, mathematics, social studies, and science to provide appropriate learning opportunities for heterogeneous instructional needs; computer-managed, ongoing monitoring of academic performance; procedures for systematic reintegration of pupils who have more moderate or severe disabilities into less restrictive settings; standardized procedures for specifying IEP documents; a program to encourage active communication between parents and teachers and concrete parent involvement; and active staff coordination.

METHOD: In the 1st year, academic monitoring, mainstream assistance teams with social behavior programming and monitoring, and classroom management will be implemented, along with early planning for other components. In the 2nd, 3rd, and 4th years, the full model will be implemented. In the 3rd and 4th years, the model will be transported to a second middle school site and evaluated for transportability. In addition, outcome reports will address the effects of the project on academic learning time, teachers' pedagogy, student achievement, progress toward IEP goals, referral rate, student awareness of learning and learning-related attributes, and attitudes toward the model.

ANTICIPATED PRODUCTS: The project will produce a model packaged in a suitable format for widespread effective dissemination and training modules addressing the process of 1) school-level change and 2) each intervention component of the model.
Expanding Curriculum-Based Measurement to Incorporate a Comprehensive Math Curriculum

GRANT NUMBER: H023A10010
BEGINNING DATE: 1/1/92   ENDING DATE: 6/30/93

ABSTRACT
PURPOSE: The purposes of this project are: 1) to investigate alternative methods for indexing student math progress with Curriculum Based Measurement (CBM) to include applications and problem-solving; 2) to investigate the accuracy, feasibility, and social validity of computerizing such a comprehensive CBM system; and 3) to study teacher planning with the comprehensive math CBM assessment methods to understand key issues in its use by teachers and to formulate critical questions for additional research.

METHOD: During the first 12 months of the project, investigation of alternative CBM math systems will involve 858 students with and without disabilities from grades 1-6 (130 students at each grade level). The 30 students with disabilities at each grade level will be randomly selected from pupils with learning disabilities and behavior disorders, who have a math IEP goal. Questions to be examined with these students and their teachers will include: What is the criterion validity of a comprehensive CBM math system against traditional measures of math proficiency and teacher judgment? and What is the overlap between the comprehensive CBM math system and three different commercial curricula? In order to investigate the accuracy, feasibility, and social validity of a computerized version of the comprehensive CBM math system, software will be developed and piloted with two special education teachers and their 30 pupils. During the last 6 months of the project, case studies will be conducted with 9 special educators and 54 pupils to investigate how teachers plan math instruction when using: a) a comprehensive CBM math system, b) a more restricted CBM system that addresses computation, and c) without CBM.

ANTICIPATED PRODUCTS: Dissemination plans include submission of research findings to special education and regular education journals, submission of teacher training procedures to practitioner-read and trainer-read journals, and presentations at national and regional conferences and to local parents, teachers, and administrators. A CBM assessment methodology, with related software, will be developed, and a teacher training manual explaining how to implement the computerized comprehensive CBM system will be disseminated.

Safe Activities for Future Environments (Project SAFE)

GRANT NUMBER: H023C00124
BEGINNING DATE: 8/1/89   ENDING DATE: 7/31/92

ABSTRACT
PURPOSE: The project will develop a program for teaching safety skills to students with moderate and severe disabilities within the context of an activity training model in which exemplars are selected through a general case approach.

METHOD: Six studies teaching students to identify potentially dangerous social encounters and react appropriately will be conducted, as well as six studies teaching students to identify and react to potential dangers while performing functional, age-appropriate activities. An errorless learning
procedure and simulations will be used for safe teaching of unsafe crises, and generalization of skills will be regularly assessed in the community.

ANTICIPATED PRODUCTS: The project will result in two manuals for teachers and other caregivers as well as one instructional module for teacher/parent trainers to better teach students with disabilities to function safely in community activities and settings.

Integrating Minority Handicapped Students Into Regular Education: A Staff Development Emphasis

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GRANT NUMBER: H023F80018
BEGINNING DATE: 9/15/88 ENDING DATE: 9/14/92

ABSTRACT
PURPOSE: This project will introduce teaching strategies and techniques systematically into the regular education classroom, primarily through professional development activities.

METHOD: Teachers will be provided with training in working effectively with students with disabilities and students who are performing on a lower than average level. They will be taught strategies for academic and behavioral intervention, teacher-centered interventions, and school-based support interventions.

ANTICIPATED PRODUCTS: A case study and a detailed inservice course for use by mentor teachers and others to structure observations and feedback to teachers will be produced.

Social Language Training for Children with Mental Retardation

PRINCIPAL INVESTIGATOR:
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GRANT NUMBER: H023C90055
BEGINNING DATE: 7/1/89 ENDING DATE: 6/30/92

ABSTRACT
PURPOSE: The project will evaluate peer-mediated and adult-mediated social skills training programs for 6- to 9-year-old students with mental retardation and develop and evaluate a program that combines the features of both the peer and adult-mediated programs.

METHOD: Single subject experimental designs will be used throughout and evaluation of social language interactions will use a method that centers on direct analysis and videotaped conversations between individual subjects. The Early Childhood Social Skills Program will be modified for use with the subjects in this study.

ANTICIPATED PRODUCTS: The project will produce a research report and modified social skills training programs.
Development of Positive Self-Perception and Mastery Orientation in Children with Multiple Disabilities

GRANT NUMBER: H023T80013
BEGINNING DATE: 10/1/88       ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: The project will conduct descriptive and intervention research to improve the motivation, self-esteem, and independence of elementary school children with severe orthopedic or neuromuscular disabilities and mild mental retardation.

METHOD: A causal-comparative design will be used to identify two groups of children with cerebral palsy and mild mental retardation - one group having low self-esteem and learned helplessness, and the second group having high self-esteem and mastery motivation. Using direct observation, reports from children, reports from significant others, and discriminant analysis procedures, the differences between the two groups of children will be maximized. Intervention techniques will then be designed to remediate the social and environmental deficiencies in the unproductive environments of the children with low self-esteem.

ANTICIPATED PRODUCTS: The project will develop intervention materials that will guide parents and professionals to be behaviorally specific in their efforts with children with disabilities.

Mount Vernon Model

GRANT NUMBER: H023F80013
BEGINNING DATE: 8/15/88       ENDING DATE: 8/14/92

ABSTRACT

PURPOSE: This project will develop a multi-component intervention program at an elementary school for serving students with disabilities in general education classrooms. Each intervention will address one of six major barriers to educating children with disabilities in the mainstream: lack of teacher support, lack of models to accommodate children with diverse needs, lack of coordination among educational services, lack of formative assessment procedures, and lack of replicable models.

METHOD: A two-stage teacher/mainstreaming assistance procedure will be developed and implemented, curriculum-based management assessment procedures will be implemented, reading/language arts and math curricula will be adapted, a nongraded grouping plan in reading and math will be implemented, teacher services will be coordinated, a peer-tutoring program will be established, instruction in school survival skills and learning strategies will be provided, and an integrated set of interventions will be developed.

ANTICIPATED PRODUCTS: Materials for replication and implementation of the model in other educational settings will be produced.
An Analysis of the Effects of Goal-Setting and Self-Instruction on the Acquisition, Maintenance, and Generalization of a Reading Comprehension Strategy by LD Students

GRANT NUMBER: H023B10029
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/92

ABSTRACT
PURPOSE: This investigation will study the unique and combined contributions of two self-regulatory procedures (goal-setting and self-instruction) on the acquisition, maintenance, and generalization of a reading comprehension strategy by students with learning disabilities.

METHOD: Forty-eight fourth and fifth grade students with learning disabilities (ages 9 to 11) will be randomly assigned to four instructional groups for teaching the target comprehension strategy: 1) explicit strategy instruction, 2) explicit strategy instruction with a goal-setting component added, 3) explicit strategy instruction with a self-instructional component added, and 4) explicit strategy instruction with both the goal-setting and self-instructional components added. The effectiveness of the four instructional arrangements will be tested using a pretest/posttest group design. The dependent measures include a reading comprehension measure administered prior to instruction, immediately after instruction, in the regular classroom immediately following instruction, and at 4 and 8 weeks following instruction. A writing probe (assessing generalization to a different academic task) will be administered approximately 4 weeks following termination of instruction. The resulting stories will be scored for length, quality, and inclusion of story grammar elements. A self-efficacy scale will be administered prior to and immediately following instruction. Furthermore, individual interviews will be conducted to determine strategy use and social validity. In order to determine the unique and combined contribution of goal-setting and self-instructions as part of the explicit strategy instructional package in promoting acquisition, maintenance, and generalization of the strategy, the experimental groups' performance will be compared with appropriate procedures.

ANTICIPATED PRODUCTS: Results of the study will be disseminated via inservice training to interested teachers, research articles, and practical articles written to inform special education teachers of effective instructional methods.

Research on Teaching Secondary Students with Learning Disabilities Expository Writing Skills

GRANT NUMBER: H023A10091
BEGINNING DATE: 1/1/92 ENDING DATE: 6/30/93

ABSTRACT
PURPOSE: The purpose of this project is to examine the effects of students' knowledge of text structure on their writing performance.

METHOD: Subjects in this study will be six students with learning disabilities (grades 9-11) who attend two high schools in the Logan City and Cache County School Districts in Utah. In Experiment 1 students will be taught to...
match text structure definitions, paragraph examples, and questions that correspond to the targeted text structures and to text structure names. Generalized matching between paragraph examples of text structures and questions that correspond to the targeted text structures and generalization to actual writing will be examined within a multiple probe experimental design. In Experiment 2 students will be taught to: 1) list and identify examples and nonexamples of critical text structure components; and 2) analyze paragraph examples and nonexamples for critical components or text structure errors. A text structure discrimination test and expository writing test will be used to examine the effects of teaching students these complex text structure analyses. In Experiment 3 students will be taught to locate key information in their regular social studies or science textbooks that correspond to critical text structure components. The effects of this training will be examined on students' written assignments from regular education social studies or science textbooks.

ANTICIPATED PRODUCTS: Results of this project will include increased knowledge about an approach to improving the expository writing skills of students with learning disabilities. Information dissemination efforts will include written reports.

The Effectiveness of the Constant Time Delay Procedure Implemented by Peer Tutors to Teach Spelling to College Students with Disabilities

GRANT NUMBER: H023B10012
BEGINNING DATE: 9/1/91          ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: This project will study the effectiveness of the "constant time delay" procedure implemented by peer tutors in increasing the spelling achievement of college students with learning disabilities.

METHOD: Constant time delay (CTD) is an instructional procedure that allows the individual to respond within a specified interval of time before being given a controlling prompt. The prompt is given until the student responds independently. The procedure has been used with students younger than college age and generally results in quick acquisition of spelling vocabulary. In this study, subjects will be at least six college students with learning disabilities assigned to tutor-tutee dyads. Tutors will be trained to administer the CTD procedure using flash cards and under conditions of 0-second delay and 3-second delay. A minimum of three training sessions, not to exceed 15 minutes each, will occur weekly for each dyad. A multiple probe design across behaviors and replicated across students (tutoring dyads) will be employed. Targeted behaviors will include spelling acquisition by the tutor and tutee. Maintenance and generalization procedures will be programmed.

ANTICIPATED PRODUCTS: Results of this study will be disseminated through written reports submitted to journals for publication and conference presentations.
**The Challenge of Classroom Strategy Instruction: Implementation, Generalization, and Maintenance**

**GRANT NUMBER:** H023A10026  
**BEGINNING DATE:** 10/1/91  
**ENDING DATE:** 12/31/92

**ABSTRACT**

**PURPOSE:** This project will develop, evaluate, and refine a comprehensive intervention to support generalization and maintenance of cognitive and metacognitive strategy training for students with learning disabilities. Specifically, the researchers will: 1) develop and evaluate follow-up support methods for promoting generalization and maintenance of strategies for writing in real school contexts; 2) evaluate the effectiveness of strategy instruction in writing and follow-up support implemented by special education teachers; 3) pilot methods for describing teacher implementation of strategy instruction; and 4) pilot methods for assessing student understanding and use of cognitive and metacognitive strategies.

**METHOD:** Six special education teachers in six schools will each provide instruction to one class, either a special education language arts class or a resource class, with at least nine sixth or seventh grade students with learning disabilities. Teachers will be randomly assigned to one of three conditions: strategy instruction (semantic mapping) with problem-solving follow-up, strategy instruction with review and practice follow-up, and writing instruction control. Throughout the project, the Self-Instruction Strategy Development (SISD) Model will be used to provide initial strategy instruction. For this pilot study, a quasi-experimental design with students as the unit of analysis will be used.

**ANTICIPATED PRODUCTS:** Planned dissemination activities include targeting researchers, teacher trainers, publishers of instructional materials, teachers, preservice personnel, and school administrators. Vehicles for dissemination include presentations at local and national conferences, publications in professional journals, and preservice and inservice training classes and workshops.

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**Decision-Making Guidelines for Facilitating Mainstreaming Success in Science**

**GRANT NUMBER:** H023D00010  
**BEGINNING DATE:** 9/1/90  
**ENDING DATE:** 8/31/93

**ABSTRACT**

**PURPOSE:** This project will facilitate special education students' success in mainstream science classes by developing guidelines for decision-making to determine the appropriateness of the curriculum, and to establish priorities for adapting and/or modifying curriculum goals and objectives for students with disabilities.

**METHOD:** The guidelines will be field-tested with school districts, teachers, and textbook publishers. During Year 1, all actual and potential approaches to teaching science will be reviewed, as well as the science curriculum, textbooks, and supplementary materials. Educators, administrators, curriculum specialists, textbook publishers, parents, and students will be surveyed on the characteristics of students with disabilities. During Year 2, the survey results will be analyzed and synthesized in order to generate an initial set of curriculum guidelines. These guidelines will be piloted with textbook publishers, teachers, and school-based text/curriculum evaluation committees. During Year 3, the revised guidelines will be field-tested in four school districts.
ANTICIPATED PRODUCTS: The guidelines will be made widely available using systematic dissemination procedures.

An Investigation of the Effects of Five Writing Conditions on the Spelling Performance of College Students with Learning Disabilities

GRANT NUMBER: H023B10027
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: The purpose of this study is to investigate the effects of five different writing conditions on the spelling performance of college students with learning disabilities (LD).

METHOD: The study will use a within subjects design with repeated measures to examine the subjects' spelling performance under the following conditions: handwriting, word processing, handwriting with a conventional print dictionary, handwriting with a handheld spelling-checker, and word processing with an integrated spelling-checker. Twenty college students with LD will produce a writing sample in each of the five counterbalanced experimental conditions. The subjects' identification and correction of spelling errors under the five writing conditions will be compared using a within subjects ANOVA.

ANTICIPATED PRODUCTS: A sound, empirically based intervention program will be developed for students with LD. The results of the study will be disseminated through publication in a special education journal and a presentation at a national conference on learning disabilities.

Research on Teaching Text Structure Discrimination to Improve Writing Skills of Students with Learning Disabilities

GRANT NUMBER: H023B10063
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: The purpose of this project is to examine empirically the effects of the knowledge of text structure on the writing performance of students with learning disabilities.

METHOD: Two experiments will be conducted. In each experiment, subjects will be students with learning disabilities (grades 9-11) who attend two high schools in the Logan City and Cache County School Districts in Utah. The purpose of Experiment 1 is to determine whether teaching students to name and define four text structures (definition, process, compare, and contrast) and to match questions commonly found in textbooks to text structure names, definitions, and paragraph examples would result in increased knowledge of text structures and improved writing performance. Students will match questions commonly found in their American history, science, and other content area textbooks to text structures used to answer questions. In Experiment 2, students will be taught increasingly complex text structure discriminations and will perform tasks such as identifying critical components of text structures that are or are not present in sample paragraphs. Writing and discrimination tests will be used. The effects of didactic training on students' knowledge of text structures and expository
writing will be assessed in a multiple-probe design across students. The experimental design will consist of a baseline and intervention condition.

ANTICIPATED PRODUCTS: Information dissemination will include submission of research reports for publication and presentation of results at a professional conference.

Transforming Students with Learning Disabilities Into Self-Regulated Learners: The Construction, Implementation, and Validation of a Sustainable Early Literacy Curriculum

GRANT NUMBER: H023C90076
BEGINNING DATE: 7/1/89 ENDING DATE: 6/30/93

ABSTRACT
PURPOSE: This project will develop, implement, and evaluate an integrated reading and writing curriculum with primary age students with learning disabilities. The curriculum will emphasize acquisition of self-regulation in cognitive activity.

METHOD: Three studies are proposed, the first establishing two comparisons. The first comparison examines the effect of the experimental curriculum on students' listening and reading comprehension and on their writing abilities relative to students who received a more traditional decoding emphasis. The second comparison examines the effect of the curriculum on reducing performance gaps between special and regular education students. Study Two examines effects of participation in the intervention on students' comprehension and composition abilities. Study Three examines effects of the curriculum on mainstreamed special education students when instruction is part of the regular education classroom curricula.

ANTICIPATED PRODUCTS: Reports and articles will be published through the Institute for Research on Teaching, included in the ERIC system, and described in a quarterly newsletter.

The Collaborative Development and Validation of a Classroom Assignment Routine to Enhance the Intrinsic Motivation of Students with Learning Disabilities

GRANT NUMBER: H023B10030
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT
PURPOSE: The purpose of this project is to design and validate a classroom assignment routine that will motivate students with learning disabilities in mainstream settings to improve performance on content-related assignments that are required for improved learning.

METHOD: Subjects will include social studies teachers (grades 6-8) who have students with learning disabilities in their classrooms, students with learning disabilities, and students without disabilities. The initial study will be descriptive in nature. Students with learning disabilities, students without disabilities, and teachers will participate in focus groups to describe what they believe to be high-quality assignments. The result of this effort will be a validated set of criteria for designing and presenting assignments in mainstream classrooms, which will then be used to design the Assignment
Completion Routine. In the first intervention study, six teachers will be trained to use the Classroom Assignment Routine. The effects of their training will be determined by measuring the extent to which assignments and teacher presentations of assignments fulfill the criteria validated in Study 1 before and after the training. A multiple baseline design across teachers will be used. In the second intervention study, the effects of the Classroom Assignment Routine will be measured with regard to student performance on assignments. Two designs, a multiple baseline across classes and a pre/post comparison group design will be used. Finally, the Classroom Assignment Routine will be socially validated with students not involved in the field-based research in order to determine the types of tasks and task routines that are most preferred.

ANTICIPATED PRODUCTS: It is anticipated that a generic classroom assignment routine will be produced tailored to the unique demands of secondary classes. Teacher training materials will become available through this project. The project will also develop information regarding types of assignments and instructional procedures that will be endorsed by both teachers and students.

Social and Academic Effects of Cooperative Learning in Elementary School Resource Rooms

GRANT NUMBER: H023B10056
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: This research will evaluate experimentally the academic and social effects of cooperative learning on teams of elementary school students with learning disabilities in resource rooms.

METHOD: The type of cooperative learning to be investigated is Student Teams-Achievement Divisions (STAD). Subjects will be 96 elementary school students (grades 3 through 6) identified as learning disabled with IEP objectives in mathematics. (The subjects will be receiving mathematics instruction in resource rooms.) Twelve resource room teachers will be randomly assigned to cooperative learning (STAD) or Focused Instruction. Pretest-posttest comparison group design will be used, nesting student groups within teacher groups. Descriptive data relating to the resource room and teacher and learning characteristics (schedule disruptions, student absences, teacher education, teacher experience, students' ability, gender and ethnicity) will be collected and analyzed to identify variables which may mediate the effect of the interventions. Social and academic outcomes will be measured by applying a single-factor, one-way analysis of covariance to posttest scores, using the appropriate pretest as covariate.

ANTICIPATED PRODUCTS: The project will produce documents prepared for dissemination, including reports of findings, teacher training materials, and classroom procedures.
Effective Schools and Special Education

GRANT NUMBER: H023C90038
BEGINNING DATE: 10/1/89          ENDING DATE: 9/30/93

ABSTRACT
PURPOSE: This project will examine whether schools identified as effective according to criteria cited in general education research literature are effective for students with mild disabilities. The project will assess the effects of (a) effective schools and (b) seven school quality indicators in terms of academic and social impact on students with mild mental retardation as compared to peers without disabilities. It will also look at referral, identification, and placement procedures.

METHOD: Unit of analysis will be the school; 30 effective and 30 ineffective schools will be selected and matched. Special education students within matched schools will also be matched and repeated measures of academic and social outcomes taken. In Year 1, the procedure will be used in elementary schools and in Year 2, in junior high schools. All students will be followed for 1 year and about half for 2 years.

ANTICIPATED PRODUCTS: A newsletter will be published disseminating research findings to administrators and teachers. Other products will include conference presentations, professional journal articles, and reports.

The Effects of Positioning on Fine Motor Accuracy of Nonambulatory Students with Cerebral Palsy

GRANT NUMBER: H023B10006
BEGINNING DATE: 9/1/91          ENDING DATE: 8/31/92

ABSTRACT
PURPOSE: The study will compare the accuracy of hand function as tested by standardized fine motor assessments in three specific sitting and standing positions in order to guide task-specific positioning to improve fine motor accuracy in nonambulatory students with cerebral palsy.

METHOD: The sample will consist of 35 students between the ages of 6 and 12 years of age who have cerebral palsy. The students will come from three Oklahoma school districts. The students will be nonambulatory and currently using a prone stander. The students will be able to follow instructions and use a pen or pencil. Fine motor performance in either the sitting or standing position and various degrees of tilting will be evaluated using four standardized tests including the Motor Accuracy Test (Revised) of the Southern California Sensory Integration Test Battery and the Visual Motor Control Test from the Bruininks-Oseretsky Test of Motor Proficiency.

ANTICIPATED PRODUCTS: Products will include a doctoral dissertation, publications and conference presentations.
The Effects of CAI On the Mathematical Problem Solving of Learning Disabled Students

GRANT NUMBER: H023B10016
BEGINNING DATE: 8/1/91 ENDING DATE: 7/31/92

ABSTRACT
PURPOSE: This study concerns the applications of computer assisted instruction (CAI) for teaching mathematics to students with learning disabilities, specifically: 1) whether a field-tested learning strategy can be taught through CAI; and 2) whether such a CAI program can be enhanced by the inclusion of an animation component.

METHOD: Two comparable CAI programs will be developed based on a field-tested cognitive strategy in solving word problems. Both programs will employ identical teaching procedures except that an animation component will be included in one of the programs. A control group which uses CAI for practicing word problems will be employed. Sixty third, fourth, and fifth grade students with learning disabilities will be randomly assigned into three conditions: CAI-1, CAI-2, and CAI-3. The dependent measures will include pretests, computer on-line posttests, paper-pencil posttests, maintenance tests (on-line and paper-pencil), time needed for finishing tutorial lesson, strategy usage including pre- and poststrategy, and computer satisfaction interview information. A 3 (conditions) X 2 (Immediate vs delayed tests) Analysis of Variance, with repeated measures on the test factor will be computed for on-line and paper-pencil tasks separately. Time for completion of lessons will be compared via ANOVA for independent samples. Correlations will be conducted between strategy reports obtained on the questionnaire and test performance.

ANTICIPATED PRODUCTS: Dissemination will include a variety of manuscripts including one which describes the prototype of the computer assisted program; a second manuscript will discuss how teachers might use this type of CAI to supplement math instruction.

Research on General Education Language Arts Curricula

GRANT NUMBER: H023D00002
BEGINNING DATE: 9/1/90 ENDING DATE: 8/31/93

ABSTRACT
PURPOSE: This project will design effective and efficient means of adapting general education language arts curricula to meet the needs of children in grades K-8 who have mild disabilities and have been mainstreamed.

METHOD: Activities will be designed in three major areas: Curriculum Analysis and Modification, Research, and Dissemination. State-of-the-art curricular approaches to language arts will be assessed, guidelines developed for analyzing and modifying curricula, and the usefulness and technical rigor of the guidelines tested with the three major user groups: teachers, adoption committees, and publishers.

ANTICIPATED PRODUCTS: Products will be the curriculum guidelines; reviews of major language arts approaches; applications of instructional design in language arts; research on the characteristics/needs of students.
with disabilities in language arts; findings on the usefulness of the guidelines; a format for an inservice workshop for teacher training; and findings on cross-curricular applications derived from the four cooperative agreements expected to be funded on general education research.

Attention Deficit Disorder Intervention Center

GRANT NUMBER: H023S10002
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: The project will establish a center to organize, synthesize, and disseminate the current knowledge base on interventions for children with attention deficit disorder (ADD).

METHOD: The center will form triads of parents, educators, and clinicians to develop a set of seven critical issues on intervention with children with ADD and to synthesize the research knowledge base on each of these issues. Clinicians involved will include pediatricians, child psychologists, and social workers. The large body of clinical research will be reviewed in order to distill from it what is most relevant for educational purposes. Syntheses will be presented at a National Forum for educators, researchers, and parents, and will be revised based on feedback from Forum participants.

ANTICIPATED PRODUCTS: Information dissemination will include pamphlets for parents and teachers and a book for researchers.

Collaboration Between Special Educators and Regular Educators: Institutional Constraints and Policies That Affect Implementation

GRANT NUMBER: H023B10035
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: The purpose of this project is to look at collaborative teaching programs between regular educators and special educators in order to identify the problems encountered by teachers who are implementing such programs. The investigator will identify building level constraints and policies that contribute to these problems.

METHOD: The unit of analysis for this study will be a collaborative teaching model at one high school. Participants will be three teachers of students with learning disabilities, three regular classroom teachers, administrators, parents, and students who are involved in the collaborative teaching program. Data will be analyzed based on the relationships that exist between these participants and the policies and institutional constraints that define these relationships. Data will be gathered in the following manner: 1) semi-structured and open-ended interview formats; 2) classroom observations using observation protocols that relate to the proposition(s); 3) journals kept by teachers who participate in the project; and 4) available unobtrusive data such as program guides and instructional materials that will provide relevant data. A qualitative research design will be used, including use of a pattern-matching procedure to analyze the data.
ANTICIPATED PRODUCTS: Results of this study should lead to recommendations that can be translated into redefined policy at the building level and should be of use to LEAs who plan to implement similar models. Outcomes will be disseminated through a write-up of the study, most likely used as the Student Investigator’s doctoral dissertation; articles in appropriate journals; and presentation of findings at appropriate conferences.

Critical Thinking Instruction Via Problem Schemas for Learning Disabled Adolescents

GRANT NUMBER: H023C10133
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/94

ABSTRACT

PURPOSE: The project will investigate the ways in which students with learning disabilities, compared with their peers without disabilities, comprehend and solve problems relevant to decisions that they will have to make in their own lives. Findings will be used in the development and evaluation of instruction that is effective in promoting critical thinking in these areas.

METHOD: The specific focus of the studies is on the nature of the social/personal problems that are posed. Three studies will investigate the performance of adolescents with learning disabilities and adolescents without disabilities on two types of problems: bounded problems, in which the information presented in the problem is sufficient to permit a satisfactory solution to be reached; and unbounded problems, to which additional information must be introduced and evaluated before a decision among alternative possible solutions is made. In addition, several different contexts in which a problem can be presented will be compared: low context, elaborated context, irrelevant context, and value-laden context. A fourth study will involve the development and evaluation of an instructional program based on the findings of the first three studies. The program will be based on an effective selection and sequencing of appropriate problems, and will teach students to evaluate critically the information to be considered in the formulation of a problem and to use schemas both in formulating and in solving the problem. Methodology will be modeled on the general strategy of the clinical interview, including initial, open-ended questions followed by detailed probe questions. A coding scheme will be developed for the analysis of the resulting protocols. Statistical analysis will use primarily analysis of variance, analysis of covariance, and non-parametric tests such as chi-square.

ANTICIPATED PRODUCTS: The project will develop instructional materials that promote critical thinking in adolescents with learning disabilities as well as guidelines for effective instructional strategies for teachers to use with the materials.

Student Learning in Context: A Model for Educating All Students in General Education

GRANT NUMBER: H023F80029
BEGINNING DATE: 9/1/88 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: This project will refine, implement, and evaluate a model for educating students with disabilities in the regular education setting by integrating school, classroom, and home-based interventions.
METHOD: The existing Student Learning in Context model will be applied in an elementary school to provide assistance and support to general education teachers through collaborative consultation, training, and teacher assistance teams; manage school and classroom organization; assist in meeting the needs of heterogeneous student groups; develop models for delivery of services to individual students; and continuously monitor student progress.

ANTICIPATED PRODUCTS: Products will include summary reports disseminated periodically to staff and parents, a monograph describing and justifying the model, and a set of instruments to evaluate the model's implementation. In addition, a training package on the principles of effective instruction, a parent training package, a model implementation package, and periodic reports on implementation and outcomes will be produced.

School Building Models for Educating Students with Disabilities in General Education Settings: Tailoring Alternatives for Middle Schools Project

GRANT NUMBER: H023F80012
BEGINNING DATE: 9/1/88 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: The purpose of this project is to develop a school building model for educating within the mainstream setting, middle school students with learning disabilities.

METHOD: Operational procedures for classroom teachers and special education teacher consultants will be written, the model will be evaluated for a group of reintegrated students with learning disabilities, at-risk students, and regular class students across ability ranges. Students with learning disabilities who fail to make acceptable progress will be identified and criteria for providing appropriate services for these students will be developed.

ANTICIPATED PRODUCTS: A guide to implementation of the model and materials to facilitate replication in other schools will be produced.
SECTION 5:

POLICY AND SERVICE DELIVERY ISSUES
Special Education Program Standards Study of Class Size and Combining Students with Various Disabilities

GRANT NUMBER: H159A10002
BEGINNING DATE: 12/01/91 ENDING DATE: 8/31/93

ABSTRACT

PURPOSE: This study focuses on the local application of the Virginia Special Education Program Standards. Specifically, the study will examine the application of the standards for class size and class mix. The investigators will study the effect of varying the standards and consider outcomes for these students as reflected in IEP service plans, achievement, behavior, and attitudes.

METHOD: A two-phase model is planned. In Phase I six sites will be visited to gather in-depth information through interviews, document reviews, and observations. Phase II will require the administration of a state-wide multi-source survey to confirm and extend information obtained in Phase I. Phase II will also include a series of focus group interviews with stakeholders following the survey. The interviews are intended to assist in integrating the findings from each phase and generating recommended uses for the evaluation information. Specific evaluation questions addressing: 1) local application of the standards, 2) effects of varying class mix, and 3) effects of varying class size will guide the study at all phases. Early and continuous involvement of stakeholders is intended to enhance the evaluation's utility.

ANTICIPATED PRODUCTS: A final report of study findings that addresses the specific goals, objectives, and study questions of the evaluation will be produced.

National Study of the Implementation of LRE Policy

GRANT NUMBER: H023C90157
BEGINNING DATE: 9/1/89 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: This project will identify the variables which contribute to differential implementation of the LRE policy across and within states.

METHOD: Six states will be selected that are representative of differing implementation approaches to the LRE policy. The qualitative study will be framed by a focus on contextual variables, organizational variables, values and beliefs, and governance will be collected at state and local levels through interviews and document analysis. These data will be analyzed to identify variables contributing to differential implementation approaches.

ANTICIPATED PRODUCTS: Project outcomes and processes will be submitted to professional journals and presented at regional and national conferences. The final report will be disseminated through national target organizations.
Evaluation of Cross-Categorical Programs for Students with Moderate and Severe Handicaps

GRANT NUMBER: H159A90006
BEGINNING DATE: 1/1/90 ENDING DATE: 12/31/92

ABSTRACT

PURPOSE: The Kansas State Department of Education will evaluate the program effectiveness and impact of cross-categorical groupings for service delivery to students with moderate and severe handicaps. Personnel preparation needs for teachers of cross-categorical groups will be investigated.

METHOD: Student, teacher, parent, and service data will be collected to compare categorical and cross-categorical programs. Teacher background and perception data will be gathered to assess training needs.

ANTICIPATED PRODUCTS: The project will produce recommendations for regulatory changes regarding categorical vs. cross-categorical service delivery, changes in personnel preparation practices and teacher certification, and in the provision of inservice technical assistance.

Linking Costs to Multiattribute Outcomes in Special Education: Programs for Learners with Handicaps

GRANT NUMBER: H159A00005
BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: This project plans to establish procedures and a methodology to be used at the local level for documenting and accurately reporting special education expenditures for students with low incidence disabling conditions. The project will evaluate resource usage and the cost effectiveness of special education programs.

METHOD: The Unique Learner Needs Section of the Minnesota Department of Education, in cooperation with the University of Minnesota’s Institute on Community Integration, proposes a comprehensive study of select special education services which includes: 1) the design of procedures and a methodology for analyzing and accurately reporting cross-program and inter-district costs for serving students with low incidence handicapping conditions; 2) development of a multiattribute measurement and evaluation process that gathers quantitative and qualitative criteria and attributes associated with the goals and outcomes of special education; 3) a comprehensive analysis of the relationship between the measured attributes and utility of special education services and their related costs across programs and districts; and 4) dissemination of information to relevant state and national audiences.

ANTICIPATED PRODUCTS: A comprehensive report will be produced that provides a complete description of the procedures and research results, and the implications of these results for design, measurement, and analysis of special education expenditures and outcomes.
Evaluation of a State Supported Education Plan and Local System Change: A Feasibility Study

GRANT NUMBER: H159F10003
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: The Oregon Department of Education will carry out a feasibility study to: 1) verify a conceptual framework, evaluation design and measurement instruments, and 2) conduct a pilot test of the evaluation study which will describe and analyze the effects of the Comprehensive Plan for Supported Education on LEA policy, service delivery systems, participant attitudes and student outcomes, and describe barriers to supported education.

METHOD: Initial project activities will include selection of four pilot-test LEA sites, interviews with relevant state and LEA stakeholders, and expansion of literature reviews in order to verify the conceptual framework, evaluation design, and measurement instruments for the study. The participant-oriented countenance model will provide a basic conceptual framework for the evaluation design, which will be pilot-tested with a cross-section of four LEAs. Subjects to be involved include all LEA students with disabilities, classmates without disabilities, administrators, principals, special education and regular education teachers, and parents of students with and without disabilities. A variety of instruments will be used to assess factors such as demographics, social interactions between students with and without disabilities, effectiveness of instruction, and student academic performance. Results will be analyzed using both qualitative and quantitative methodology in order to identify barriers to supported education and strategies to overcome these barriers. The feasibility of conducting a full evaluation of Oregon’s Plan for Supported Education will be evaluated with regard to usefulness to ODE and/or LEAs, technical soundness, costs, and political feasibility.

ANTICIPATED PRODUCTS: Products for dissemination will include a report of barriers and strategies for each LEA and for the summation of the four sites, and a feasibility report regarding full evaluation of the Comprehensive Plan for Supported Education. National publication of LEA case studies will provide information on barriers to supported education and successful examples of supported education for national audiences, including other state departments of education, other researchers and evaluators, and other local education agencies.

Developing Educational Reform Policy Options to Improve Services to Students with Disabilities

GRANT NUMBER: HS90500001
BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/93

ABSTRACT

PURPOSE: This project will develop effective state and local policy options for three priority areas related to educational reform: 1) restructuring as implemented through site-based management; 2) outcome assessments; and 3) provision of needed educational and other human services to students with serious emotional disturbance and their families.

METHOD: The project will identify and confirm a set of policy issues related to each of the three policy areas, conduct analyses of current promising policies and practices from which options may be constructed, and
identify gaps in existing policies. After constructing a full array of state and local policy options, the project will develop impact profiles for each policy option which describe anticipated effects, problems, and conditions associated with their implementation. The policy options developed will be reviewed based on stakeholder input.

ANTICIPATED PRODUCTS: Products will be state and local policy options and impact profiles, which will be distributed to appropriate audiences at the national, state, and local levels.

**Prereferral Impact: Process and Intervention Evaluation**

GRANT NUMBER: H159A10003  
BEGINNING DATE: 10/1/91  ENDING DATE: 3/31/93

**ABSTRACT**

PURPOSE: This project will evaluate the impact of the prereferral system which is mandated in the Utah State Board of Education Special Education Rules. It will focus on determining the extent to which the prereferral intervention process impacts the instructional program and/or placement outcomes. Information generated by the project will be used by state and local educators to: 1) clarify and refine the state prereferral mandate; 2) develop preservice and inservice training programs; and 3) improve the ability of teachers to solve student problems in the regular education system.

METHOD: The study is divided into two phases. The first phase will focus on developing instrumentation to assess the variables that influence student outcomes following the prereferral process. The second phase will focus on describing and comparing the statistically significant process and outcome variables of a randomly selected sample of regular education teachers and a nominated sample of teachers who have experienced success with the prereferral process and those who have not.

ANTICIPATED PRODUCTS: A survey instrument and a final report summarizing study findings will be produced.

**Open Enrollment and Students with Disabilities: Issues, Implementation, and Policy**

GRANT NUMBER: H023C00004  
BEGINNING DATE: 9/16/90  ENDING DATE: 9/15/95

**ABSTRACT**

PURPOSE: This project will conduct a 5-year naturalistic investigation in Minnesota on the effects of open enrollment in order to understand the benefits and problems that result from its implementation.

METHOD: To develop a set of guidelines, 13 studies have been designed to explore the issues and to arrive at implications for policy, research, and practice. These studies use eight primary methodologies (tracking, school district surveys, school interviews, parent/student surveys, parent interviews, observations, checklist completion, and school record reviews) to address specific research questions.

ANTICIPATED PRODUCTS: Outcomes include a knowledge and database, technical reports, and specific useable documents for policy makers.
SECTION 6:

SECONDARY EDUCATION AND POSTSECONDARY OUTCOMES
Developing Effective Leisure/Recreation Patterns for Handicapped Youth and Young Adults Residing in Alternative Community Living Settings

PRINCIPAL INVESTIGATOR: Bender, Michael
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ABSTRACT
PURPOSE: This project will develop effective leisure/recreation patterns for adolescents and young adults with disabilities residing in alternative community-based living facilities (group homes).

METHOD: A trained observer will visit the selected group home and observe the day-to-day living situation, resident activity, and patterns to gain a holistic understanding of the climate, social interactions, habits and problems of the residents; observations will be recorded using qualitative research methods.

ANTICIPATED PRODUCTS: Each group home will be provided with an Individualized LLS Curriculum Guide and Resource Kit outlining basic principles of self-efficacy, leisure-efficacy and transitioning; recommended leisure learning curricular units and lesson plans; customized community resource guide; LLS Personalized Time Diary for each resident; and a Leisure Opportunities Quick Reference Guide for each resident.

GRANT NUMBER: H022C00058
BEGINNING DATE: 8/1/90 ENDING DATE: 7/31/93

Dropout Prevention and Intervention Programs for Junior High School Students in Special Education

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ABSTRACT
PURPOSE: This project will develop and field-test interventions to support junior high school aged students with disabilities who are at risk of dropping out of school and to increase the holding power of the schools they attend.

METHOD: Interventions will be directed toward the family, home, school and community. Comprehensive strategies in each area will be integrated to meet the needs of individual students. Three phases will be followed: Intervention Refinement, Intervention Implementation, and Final Follow-up including dissemination. Two groups of students in each school will participate in interventions over a 2-year period.

ANTICIPATED PRODUCTS: Direct benefits are expected for students participating in the project, in terms of reduced risk of dropping out, greater school achievement, and improved relationships with school, home, and community.

GRANT NUMBER: H023K00017
BEGINNING DATE: 9/1/90 ENDING DATE: 8/31/95
Validation of an Integrated Model of Strategic and Content Instruction for Secondary Mainstream Classes

GRANT NUMBER: H023C10020
BEGINNING DATE: 8/1/91  ENDING DATE: 7/31/93

ABSTRACT
PURPOSE: The purpose of this project is to develop a strategic teaching process for use by secondary regular classroom teachers that enables teaching not only the content, but the strategies required to make learning content meaningful, integrated, and transferable for adolescents with educational disabilities.

METHOD: First, a generic teaching sequence will be designed that can be used to teach specific learning strategies to all students enrolled in mainstream classes while also teaching them content information. Second, a set of learning strategies that are appropriate for integration into high school social studies/history classes as well as a control strategy for making the most effective use of those strategies will be designed. Next, a set of content transformation routines will be designed that can be used by teachers to manipulate their course content so that instruction about the content and selected strategies can be meshed. Finally, each of the learning strategies, transformational routines, and the teaching sequence for strategies instruction will be tested in a combined package in several high school classrooms to determine their combined effectiveness. It is expected that at least 36 social studies teachers (grades 9-12) and 324 students (in experimental and comparison groups) will participate across the 3 years of the study. The effectiveness of the elements of the package will be tested along three critical dimensions: their power to improve the performance of students with educational disabilities (learning disabilities and behavioral disorders); other low-achieving students; and normally achieving students in terms of content mastery and strategy mastery; their perceived value by all learners in targeted classrooms; and their perceived workability in regular classroom settings by teachers.

ANTICIPATED PRODUCTS: Products from the study will include a set of specific learning strategies tailored to the unique demands and characteristics of secondary social studies and history classes, instructional methodologies and activities, and a teacher training program. Dissemination activities will include conference presentations, publication of position papers and research articles, and presentations of findings at meetings of the National Network for Research and Dissemination to Secondary Schools.

First Decade After Graduation: Qualitative Analysis of Postschool Outcomes for 1985 and 1990 Graduates

GRANT NUMBER: H023C00079
BEGINNING DATE: 10/1/90  ENDING DATE: 9/30/95

ABSTRACT
PURPOSE: This project will examine how variables such as special education classification, socioeconomic status, and personal factors interact during the 5 to 10 years after high school. It will also suggest ways the key variables could be manipulated in secondary school programs to increase the likelihood of a special education student making a successful transition to an adult occupation and lifestyle.
METHOD: Qualitative methods will be used in case-control studies to examine the interactions of factors that are not captured in strictly quantitative data. Logistic regression analysis will integrate quantitative and demographic data to develop a prediction equation for special needs students, and a computer simulation program will model outcomes dependent on key variables.

ANTICIPATED PRODUCTS: Areas of need typical of young people within disability groups will be revealed. The program will develop simulation models and databased guidelines for program changes in special education.

Research on a Follow-Along Strategy for the Transition of Students with Disabilities

GRANT NUMBER: H023C80131
BEGINNING DATE: 5/1/88 ENDING DATE: 4/30/93

ABSTRACT

PURPOSE: The project aims to conduct research on a follow-along model of transition services in order to identify those influences, both in school and during the early transition years, that are most likely to have an effect on the level of community adjustment that is experienced by students with disabilities when they leave school. Other purposes of the project are to document the current status of a sample of school leavers with disabilities in Oregon and to develop a follow-along strategy that can be implemented at the state and local level without the need for continuous project resources.

METHOD: A sample of school leavers, including 350 graduates and 250 dropouts, will serve as research subjects and will be drawn from 23 communities. Using a longitudinal perspective, information will be collected from students and their parents about personal/family characteristics, quality of school programs, school services received, school achievement, adult services received, and community adjustment. A powerful data analysis technique called LISREL will be employed to examine the validity and utility of an explanatory model of transition.

ANTICIPATED PRODUCTS: The project will develop a follow-along model of transition, will document transition experiences and community adjustment of school leavers from special education programs in Oregon, and will implement a follow-along strategy in Oregon. Project outcomes will be disseminated to state and local education agencies outside Oregon.

Using Follow-Along Information Effectively

GRANT NUMBER: H023C10041
BEGINNING DATE: 8/1/91 ENDING DATE: 7/31/95

ABSTRACT

PURPOSE: This new project will build upon a strong foundation of existing work, including a systems-change model called the Community Transition Team Model, and a follow-along model, both of which are currently being implemented by the applicant on a statewide basis in Oregon.
METHOD: The project design involves four basic steps: 1) preliminary development of methods and materials for linking follow-along information to program improvement efforts; 2) demonstration and evaluation of the methods and materials in Oregon, followed by appropriate modification of the methods and materials; 3) replication and evaluation of the methods and materials in a second state, followed by appropriate modification of the methods and materials; and 4) national dissemination of project findings, methods, and materials. The primary subjects for both the Oregon demonstration and the subsequent replication are leaders and members of "transition teams." Thirty-five teams currently exist in Oregon with a total membership of approximately 500 providers and consumers of secondary special education and transition services. Project implementation involves a very active collaboration between the University of Oregon, the Oregon Department of Education, and a statewide network of transition teams.

ANTICIPATED PRODUCTS: Dissemination of project methods and materials to interested SEAs throughout the country will involve a two-step procedure: First a national symposium will be held to present the model to SEA staff who are responsible for secondary special education and transition programs; following the symposium, regional workshops will be conducted in five regions of the country to train SEA staff.

Project Belief

GRANT NUMBER: H023K00001
BEGINNING DATE: 9/1/90
ENDING DATE: 8/31/95

ABSTRACT

PURPOSE: This project will address the problem of students labeled learning disabled and severely behaviorally disordered who drop out of school.

METHOD: The intervention strategies will consist of 2 years of intensive remedial reading and writing, culturally sensitive instructional procedures, matching with mentors, a 10-hour school day, self-esteem building, structured weekends, provision of case management support to the family for accessing needed social services, and structured summers. For those who desire to go to college, intervention will continue with a full mainstream program. An apprenticeship program will be implemented for students not planning to attend college.

ANTICIPATED PRODUCTS: It is hoped that the efforts of this project will result in an increased number of students who graduate from high school.

Lecture Comprehension Monitoring to Improve Secondary Students’ Content Area Learning

GRANT NUMBER: H023A10060
BEGINNING DATE: 1/1/92
ENDING DATE: 12/31/92

ABSTRACT

PURPOSE: The purpose of this project is to develop and test a self-instructional procedure in which secondary aged students with disabilities learn to monitor their comprehension of class presentations and to take appropriate actions if they find that they are not understanding what is being presented.
METHOD: Subjects in this study will be 30 to 35 students, grades 9-12, identified as learning disabled, seriously emotionally disturbed, or mildly mentally retarded. Researchers will draw on previous experience with self-monitoring and self-instructional interventions as well as the comprehension monitoring literature, to develop a procedure that can be taught to atypical secondary students by their special education teachers. Students will be trained to monitor whether they are understanding the material being presented during class sessions in content area instruction and to seek appropriate help by asking cogent questions when they do not understand. The training will incorporate features designed to foster transfer across settings. Effects of the intervention within the regular classroom ecology will be evaluated by conducting: 1) experimental analyses of participating pupils’ class performance (quizzes, tests) and behavior (attending, asking questions, volunteering answers) and 2) qualitative analyses of participating pupils’ class notes and of pupils’ and teachers’ opinions of the procedures. Data will be analyzed according to a one-way multivariate analysis of variance.

ANTICIPATED PRODUCTS: Results of this study will be disseminated to researchers and practitioners via conferences, journal articles, and scholarly papers submitted for publication in edited volumes.

Using a Follow-Along Strategy to Assess Postschool Outcomes of Students with Disabilities to Influence Statewide Systems Change

GRANT NUMBER: H159A10008
BEGINNING DATE: 11/1/91 ENDING DATE: 10/30/93

ABSTRACT

PURPOSE: This project will establish a system for collecting and utilizing student follow-along information at state (Arizona) and local levels to assess educational services and postschool outcomes of students with disabilities. Such an information system is expected to impact directly on youth with disabilities as well as assist service providers to examine the impact and effectiveness of transition services and implement program improvements.

METHOD: Data will be collected on 750 to 1,000 students during their last year in high school and again during their 1st year out of school. Data will include student and family characteristics, school services needed and received, school achievement, quality of life while in school, postschool services needed and received, and quality of life out of school. Computer-assisted telephone interviews of students and parents and a questionnaire survey of the students’ special education teachers will be utilized. Technical assistance will be provided to state and local staff as they use the follow-along information to improve policies and programs.

ANTICIPATED PRODUCTS: Products will include instruments for collecting the evaluation data; a set of tables and graphs, with accompanying commentary representing the data analyses; a manual of follow-along procedures, technical assistance materials; a paper identifying resources necessary to maintain the information system; and a final report.
School Drop Out in Learning Handicapped, At-Risk, and Nonhandicapped Students: Incidence, Causes, and Consequences

GRANT NUMBER: H023C80072
BEGINNING DATE: 10/1/88 ENDING DATE: 9/30/93

ABSTRACT

PURPOSE: This project plans to establish the magnitude of the dropout problem among high school students who have mild learning disabilities and those who have been identified as low-achievers in comparison to the dropout rate of students without disabilities. The project will test a causal model for departure and identify causes and consequences of dropping out for this group.

METHOD: Student demographic data, academic performance, educational history, and affective variables will be analyzed over 5 years, beginning in ninth grade, and a causal model for withdrawal will be tested using this information.

ANTICIPATED PRODUCTS: Empirical evidence for differential causes for dropping out related to sex, ethnic group, and socioeconomic status in these populations.

Using Exit Performance Assessments to Follow-Along Students and Improve Programs

GRANT NUMBER: H159A10010
BEGINNING DATE: 12/1/91 ENDING DATE: 11/30/93

ABSTRACT

PURPOSE: This project is intended to extend and sustain the implementation of a statewide (Michigan) outcome-based approach to the delivery of special education services. The three project goals are: 1) to use established outcome measures of student performance with a follow-along strategy to validate program improvement; 2) to develop a statewide "Report Card" on outcome performance areas across four educational levels and five disability areas; and 3) to evaluate the extent of statewide implementation of the Program Outcomes Guides and assessment strategies.

METHOD: The study will utilize previously developed Exit Performance Assessments (EPAs) in the follow-along data tracking of postschool adjustment of 40 students with emotional impairments and 40 students with educable mental impairments. Data collection instrumentation and a database of in-school and follow-along data will be developed. Representative school districts will be sampled for the development of the Report Card format for reporting to local school districts statewide data on student outcomes. Additionally, administrators and teachers will be surveyed regarding implementation of state Program Outcomes Guides and assessment strategies.

ANTICIPATED PRODUCTS: Products will include a database of in-school and postschool follow-along data, two reports addressing outcome validity, performance checklists for each area of impairment, a statewide database in five disability areas, five "Report Cards," a survey database, and a report on implementation of Program Outcomes Guides and assessment strategies including their impact on curriculum and instruction.
Transition Experiences of Youth with Disabilities: A Report from the National Longitudinal Transition Study

GRANT NUMBER: 300-87-0054
BEGINNING DATE: 5/1/87          ENDING DATE: 4/30/92

ABSTRACT

PURPOSE: The project will examine how effectively the nation is preparing youth with disabilities for adult life. It will inform policy makers about the efficacy of services being delivered under the Education of the Handicapped Act and it will extend special education researchers' knowledge of transition issues.

METHOD: The project will conduct surveys and explanatory studies. During its first 3 years, the project will survey parents, district and school special education personnel, and data will be abstracted from school records. Descriptive analyses will document the services, experiences, outcomes, and paths of youth with disabilities. The explanatory analyses will explore the factors associated with successful transitions. Substudies using a multiple case study design will be conducted.

ANTICIPATED PRODUCTS: Results will be disseminated to a wide audience, including policy makers, practitioners, and researchers. In addition to annual reports, the project will produce topical reports, statistical almanacs, and methodological reports.

Consumer Satisfaction with Special Education: High School Students' Perceptions of the Effect of a Learning Disabilities Placement

GRANT NUMBER: H023B00007
BEGINNING DATE: 8/1/90          ENDING DATE: 1/31/92

ABSTRACT

PURPOSE: This project will investigate the impact of special education services from the point of view of one group of consumers: secondary students labeled learning disabled.

METHOD: Using qualitative methodology, a descriptive set of data will be gathered on high school student perceptions of the effects of receiving learning disability services in both resource room and self-contained class settings. Three general topics will be examined: 1) self-perception of the students receiving the services; 2) their perceptions of peer acceptance; 3) and their perceptions of efficacy of the programs in meeting their perceived needs.

ANTICIPATED PRODUCTS: The program will result in important consumer input in program evaluation.
A Comprehensive Examination of Dropout and Dropout Prevention in Urban Students with Learning Disabilities

PRINCIPAL INVESTIGATOR:
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GRANT NUMBER: H023C80071
BEGINNING DATE: 9/1/88 ENDING DATE: 8/31/93

ABSTRACT

PURPOSE: The goal of this study is to provide empirically-based guidelines for the early identification of children and youth with learning disabilities who are at risk for dropping out of school, through a prospective examination of alterable student behavior and school environmental factors.

METHOD: Data collection instruments will include annual attitude, perception, and school knowledge interviews, transition interviews conducted at grades 6 and 9, and early school exit interviews as needed; three formal behavioral assessments (self-concept, locus of control, and conduct and social behavior); and building- and classroom-level data monitoring charts to map factors such as attendance and standardized achievement on an ongoing basis.

ANTICIPATED PRODUCTS: The impact of this study will include a broadened understanding of alterable student and pedagogical conditions related to dropping out; an efficient identification heuristic for classroom practitioners and program planners; an enhanced methodology for future research, data collection, and interviewing procedures; and a database of a large sample of students with learning disabilities.
SECTION 7:
SERIOUS EMOTIONAL DISTURBANCE AND BEHAVIORAL DISORDERS
School & Community Collaboration for Educating Children and Youth with Serious Emotional Disturbances and Providing Support for Their Families Within a Rural Setting

GRANT NUMBER: H237B10018
BEGINNING DATE: 11/1/91 ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: The purpose of the project is to design and assess the feasibility of a comprehensive community-based system of education and support for students with serious emotional disturbance and their families and to implement and evaluate the system within one rural Vermont school district.

METHOD: In Phase 1 a project Advisory Council will be established which will include students, parents, legislators, representatives of state and local agencies, and public school educators and administrators. A Community Planning Team will be established consisting of parents, school administrators, teachers, community mental health staff, vocational rehabilitation personnel, and others. Five task forces will be created for identified system components including student support, family support, service provider support, crisis management, and curriculum/skill development. Each task force will be responsible for reviewing the literature; preparing a needs assessment of students, families, and service providers; analyzing and compiling a list of unmet needs for each system component; and preparing a series of recommendations for the comprehensive system of education and support. In Phase 2, project staff will assist the community in implementing and evaluating the comprehensive system through state and local advocacy, on-site technical assistance, and inservice training. Evaluation in both phases will include assessment of the impact on students, their families, their educators and related service providers, community service providers, and the community as a whole.

ANTICIPATED PRODUCTS: Information regarding the project will be disseminated to the entire community through newspaper announcements, a newsletter, and direct mailings. Results of the project, including a replication manual, will be disseminated throughout Vermont and the nation to parents, advocates, state and local agencies, regional and national parent organizations, and institutions of higher education.

Evaluating the Effectiveness of Needs-Based Programming on Students with Serious Emotional Disturbance

GRANT NUMBER: H159A10005
BEGINNING DATE: 11/1/91 ENDING DATE: 12/31/93

ABSTRACT

PURPOSE: This project will evaluate the effectiveness of needs-based programming on children with serious emotional disturbance throughout Colorado.

METHOD: Study 1 will be a statewide evaluation of programs to determine to what degree needs-based programming has been adopted. A sample of
programs that represents approximately 10% of the students with SED will be evaluated and a draft implementation score for each school will be calculated based upon the number of needs-based programming components in place and the fidelity of implementation of each component. Study 2 will focus on whether programs with a high degree of adoptions of the needs-based programming for children with SED produced superior outcomes to those programs with a low degree of adoption.

ANTICIPATED PRODUCTS: Dissemination activities will be targeted to researchers, practitioners, and the general public and will include publication in professional journals and conference presentations.

**Great Falls Model for the Multiagency Delivery of Education and Support Services to Seriously Emotionally Disturbed Children**

**GRANT NUMBER:** H237B10039  
**BEGINNING DATE:** 10/1/91  
**ENDING DATE:** 3/31/93

**ABSTRACT**

**PURPOSE:** Great Falls Public Schools (MT) will develop, implement, and validate a coordinated model of educational and community support services which enables children with serious emotional disturbance (SED) and their families to access needed services in the least restrictive option available to them.

**METHOD:** An assessment will be conducted of the current school, mental health, and social services practices relating to: early screening and identification of children with SED, current case management practices, ombudsperson assistance, family participation, evaluation of the children, comprehensive service planning (including IEPs), service continuity, and multiagency coordination and planning. A model for a multiagency system of case management and coordination between agencies will be developed and piloted with 15 children who have been identified as having SED. A plan for ongoing mental health services for high school students will be developed and integrated into the IEPs of 20 students with SED. The project will also include development of a model to encourage the formation of parent/parent surrogate support and advocacy groups and to expand opportunities for their participation and collaboration. Project activities will involve major input from the Cascade County Children’s Services Committee, with representatives from juvenile probation, social and rehabilitative services, the local mental health association, the Native American Center, and a parent of a child with SED.

**ANTICIPATED PRODUCTS:** Dissemination activities will include inservice training, conferences, journal publications, and a self-help booklet for parents/parent surrogates of SED children.
**Middle Tennessee Comprehensive Services Model**

GRANT NUMBER: H237B10025  
BEGINNING DATE: 10/1/91  ENDING DATE: 3/31/93

**ABSTRACT**

**PURPOSE:** The purpose of this project is to develop, implement, and evaluate a comprehensive service delivery model for seriously emotionally disturbed children and adolescents in Middle Tennessee.

**METHOD:** In the first 18 months, the project will focus upon developing and assessing the feasibility of implementing a coordinated service delivery model involving school districts, community agencies, and state educational agencies. Specific tasks will include: (a) conducting a needs assessment of students with serious emotional disturbance; (b) reviewing current school and community practices related to service delivery; and (c) based on the findings of (a) and (b), identifying potential areas for designing system improvement. Model components will include: (a) early screening and identification; (b) case management and ombudsperson assistance; (c) evaluation; (d) a comprehensive plan of service, including an individualized educational program; (e) service continuity; (f) multiagency coordination and planning; and (g) family planning. The final 30 months of the project will consist of implementing and evaluating the model. The fidelity of model implementation will be evaluated in addition to the effectiveness of the model in achieving favorable student outcomes. Additionally, a component analysis will be conducted to determine the critical elements of the overall model. Teachers, parents, direct service providers, ombudspersons, juvenile justice officials, and other related service personnel will be involved in the collaborative effort.

**ANTICIPATED PRODUCTS:** Dissemination activities will include developing implementation guides to facilitate replication of the model and conducting a conference to share the process model. Methods, findings, and implications will be disseminated widely to relevant national, professional, and parent organizations in the form of written materials, presentations, and technical assistance.

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**Building a Model for Training Adolescents with Serious Emotional Disturbance to Use and Generalize Verbal Social Skills**

GRANT NUMBER: H023C00017  
BEGINNING DATE: 9/1/90  ENDING DATE: 8/31/94

**ABSTRACT**

**PURPOSE:** This project will conduct research directed toward determining which training procedures lead to effective acquisition and generalization of social skills.

**METHOD:** The effectiveness and efficiency of five training procedures will be determined, a comprehensive training model for teaching social skills to adolescents with serious emotional disturbance (SED) will be developed, and the effectiveness and efficiency of the comprehensive training model evaluated. Six studies will be conducted over a 4-year period. The research will be conducted in public middle and junior high schools.

**ANTICIPATED PRODUCTS:** The comprehensive training model will train adolescents with SED in necessary social skills.
**Analyses of Policy Effects Differentiation Between Students with Conduct Disorders and Emotional Disturbance**

**GRANT NUMBER:** H023B10005  
**BEGINNING DATE:** 10/1/91  
**ENDING DATE:** 9/30/91

**ABSTRACT**

**PURPOSE:** This investigation will examine the effects of the decision made by the Nevada State Board of Education in 1988 to mandate differentiation between students with emotional disabilities and those with conduct disorders or social maladjustment in the evaluation and placement of students referred for SED services. The purpose of this project is to determine what effects the 1988 policy change has had on educational practice in the State of Nevada and what the change has meant to stakeholders in the process.

**METHOD:** The investigation will consist of two studies, one qualitative and one quantitative. The first study will involve the collection of data from various agencies in the state of Nevada on a number of administrative, student, teacher, and psychoeducational variables such as: state expenditure for related services provided for SED students, number/proportion of dropouts, SED class size, and amount of time spent counseling students. Similar information will be collected from two regional states with similar demographic characteristics (e.g., SES, proportion of rural vs. urban, racial/ethnic composition) for comparative purposes. A multivariate analysis of variance procedure will be used to compare data gathered from this study. The second study will consist of a series of interviews with stakeholders in the Nevada education system (e.g., administrators, teachers, students with serious emotional disturbance or conduct disorders) to allow individuals who have been most directly affected by the 1988 standards mandate to discuss their perceptions of how the change in policy has impacted them. Results will be synthesized using qualitative methodology.

**ANTICIPATED PRODUCTS:** The primary product of this research will be the student researcher's doctoral dissertation. Other dissemination activities will include publication in professional journals and presentation of the findings at national and state conferences in the field of special education or educational policy. Copies of the final report will be distributed to all participating state and local education agencies.

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**Research on Positive Behavioral Interventions for Elementary School Students with Severe Emotional and Behavioral Challenges**

**GRANT NUMBER:** H023C10102  
**BEGINNING DATE:** 8/7/91  
**ENDING DATE:** 8/6/94

**ABSTRACT**

**PURPOSE:** The purpose of this research is to develop, evaluate, and disseminate information regarding positive interventions for managing the behavior problems of elementary school children who have serious emotional and behavioral challenges.

**METHOD:** Participants will be selected from a pool of 65 children with severe emotional disturbance (ages 5 to 12) being served in eight classrooms in the Hillsborough County Public Schools (FL). Of the eight classrooms, six
are located on two regular public school campuses and two are on the campus of a school operated in affiliation with the Florida Mental Health Institute. The first research objective is to collect functional assessment information on the problem behaviors of at least 20 students. This information will help to establish the foundation for subsequent studies and to identify a number of potential participants for further analyses. The second objective will involve at least six intervention studies on the effects of curricular modifications on the behavior problems and adaptive responding of students with SED. A series of investigations employing single-case methodologies will address variables related to: 1) the “meaningfulness” of curricular content; 2) opportunities for students to exert some choice making control over their activities and rewards; 3) task interspersal for curricular requirements that are identified as essential yet individually challenging; and 4) the scheduling of activities within and across a student’s day. All of these (and other) studies will be conducted within the context of individualized functional assessments, and will be conducted to ascertain the value of the functional assessment data to the individually prescribed interventions. Finally, the participating students will be followed over the course of the 3-year project in order to determine the longitudinal (meaningful) outcomes, especially as they pertain to the research-based interventions.

ANTICIPATED PRODUCTS: Information dissemination outcomes will include journal publications, conference presentations, regional workshops, a validated manual for educators, and detailed descriptions of the experiences of individual children over the 3-year period.

Designing and Implementing a Comprehensive System of Education and Support for Children with Serious Emotional Disturbance

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GRANT NUMBER: H237B10020
BEGINNING DATE: 10/1/91 ENDELING DATE: 3/31/93

ABSTRACT
PURPOSE: The purpose of this project is to design a comprehensive, coordinated system of community and school-based services for students with serious emotional disturbances (SED).

METHOD: During the 1990-91 school year, several agencies collaborated with the LaGrange Area Department of Special Education (IL) in the implementation of a pilot Wrap Around Program (WRAP), an interagency collaborative approach to providing services for students with serious emotional disturbance and their families in normalized school and community settings. The primary focus of this project is to evaluate and expand the WRAP model. Areas of study for system improvements will focus on collaboration between agencies to increase community-based options and resources for children with SED and their families including family support and advocacy, respite and foster options, increased mental health support in regular school settings, and models which "wrap" services around children and their families in normalized community and school environments. A Coordinating Council will be responsible for the assessment of existing interagency programs and services, determination of needs, and development of a design for a coordinated system. Leaders and decision makers of state and local agencies and parents will be involved. A Case Coordination Committee will assess existing case management services and design a more coordinated and comprehensive system for implementation. Other project components include development and implementation of parent advocacy,
Designing and Implementing a Comprehensive System of Education and Support for Children

GRANT NUMBER: H237B10005
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: The Leon County School Board will build upon the existing network of programs and innovative practices in Florida's Multiagency Service Network for Severely Emotionally Disturbed Students (SEDNET) by designing and implementing a complete system of care for children and youth with and at risk of severe emotional disturbance.

METHOD: The project will define service components and identify them by funding source and program entity using a relational database method. Approximately 250 children in the target population will be identified to begin to build the interagency/interprogram relational database for operational and longitudinal analytical purposes. A case-based needs assessment will be conducted through Individualized Education Program conferences and Family Service Planning Teams. In addition, parents, students, agency professionals and other key community figures who have a stake in improving service availability and quality will be interviewed regarding service priority issues. The Project Advisory Team will arrive at consensus concerning the systems analytic and case-based assessments and facilitate the development of criteria to select specific components which offer the most strategic opportunities for change over the next 2 years. Literature reviews will be conducted, and ad hoc work groups will be selected to address specific components.

ANTICIPATED PRODUCTS: The project will produce "A Proposal for a Comprehensive Multiagency System of Care for Severely Emotionally Disturbed Children in Leon County, Florida." The document will include a Strategic Implementation Plan, a Cost Shared Budget Model, a companion set of interagency agreements and model contracts, and a qualitative ethnographic analysis of the impact of proposed changes.
Assessing Social Behavior in Community Settings for Adolescents with Severe Emotional Disturbance/Behavior Disorders

GRANT NUMBER: H023C90064
BEGINNING DATE: 10/1/89     ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: There are few instructional materials for transition and community training for adolescents with severe emotional or behavioral disorders and no practical, easily administered assessment tools to measure social competence in community settings. This project will develop two measures of community-based social behavior: a knowledge-based test of social skills in living settings and a parallel performance rating scale.

METHOD: An empirical process, The Behavior Analytic Model of Test Development, will be used to develop and standardize the tests using a nationally representative sample. Reliability, concurrent and construct validity will be established. Then, the study will identify the types of social problems that face students who are “internalizers” and “externalizers.” Results will make it possible to tailor instructional programs to the unique needs of the students.

ANTICIPATED PRODUCTS: Publications, presentations, workshops, SpecialNet, and newsletters will be used to disseminate results.

Manatee Community Services Coordinating the Provision of Services to Children with SED and Their Families

GRANT NUMBER: H237B10036
BEGINNING DATE: 10/1/91     ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: The Manatee Community Services Coordinating Council in Bradenton, Florida, will develop a model for the coordination of educational, social, recreational, mental health, and other support services for children with serious emotional disturbance (SED) and their families.

METHOD: A major project objective and activity will be the creation of the Manatee Community Services Coordinating Council, an expansion of an existing regional planning team which will include representatives from the school district, health and rehabilitative services, community mental health, private service providers, the Florida Senate, and other agencies, organizations, institutions, and corporations that are concerned with the delivery of services to children with serious emotional disturbance and their families. Council members will receive “joint training” on topics such as the nature and needs of the children with SED and their families and best practices in the field. Council member agencies and individuals will provide “cross training” on such topics as elements of the various programs and procedures for referral to and utilization of services. Additional project activities will include: a survey of all services currently available within the district, the determination of service gaps, determination of policy changes that would enhance collaboration, and pre- and postassessments of costs for various services provided.
Linn-Benton Service District: Program for Children and Youth with Serious Emotional Disturbance

GRANT NUMBER: H237B10003  
BEGINNING DATE: 10/1/91  
ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: This project will design, implement, and evaluate a comprehensive interagency model for serving children with serious emotional disturbances and their families. It will demonstrate that parents, school staff, and representatives from multiple agencies can work effectively to design and provide a comprehensive, community-based, client-directed service system through coordination of shared responsibilities for service delivery.

METHOD: The project will incorporate and improve upon already developed successful collaborative processes and will add a case management component to the service delivery system for children with emotional disturbances in Linn County, Oregon. Four processes will provide the framework for designing, implementing, and evaluating the comprehensive model: the Project Advisory Board, the “Continuum of Services for Managing Student Behavior” model, the Youth Service Team staffing process, and the addition of case management services. The planning process will be coordinated through the Project Advisory Board, composed of parents, child advocates, consumers of mental health services, school administrators, and community service agency directors. Project goals are to: develop a comprehensive array of services; establish an interagency collaborative process for developing a comprehensive individual family service plan for each child with serious emotional disturbance; design a process for screening identification and early intervention; design a mechanism for service plan coordination and modification; and institute a financing plan to support implementation of the service delivery plan.

ANTICIPATED PRODUCTS: The principal product outcome is the refinement and further development of a comprehensive education and support system for children with serious emotional disturbances.

Virginia Behavior Disorders Project: Educational Placement of Pupils with Emotional and Behavior Disorders

GRANT NUMBER: H237A10002  
BEGINNING DATE: 10/1/91  
ENDING DATE: 9/30/93

ABSTRACT

PURPOSE: The project will assemble, interpret, and disseminate information regarding placement decisions for pupils with emotional or behavioral disorders. Focus will be on four key features of the problem of placement decisions: rationale, procedures, participants and contexts.

METHOD: Initial and continuing guidance for the project will come from a group of advisors representing practitioners, parents, administrators, and
Designing and Implementing a Comprehensive System of Education and Support for Children with Serious Emotional Disturbance

GRANT NUMBER: H237B10015
BEGINNING DATE: 10/1/91  ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: During Phase 1 of this project, Montgomery County Public Schools (MCPS) plans to design a state-of-the-art, comprehensive system of education and related interagency services that will result in improved outcomes for students with serious emotional disturbance (SED), their families, and educators.

METHOD: The project will improve the identification of the educational and mental health needs of students with SED and the provision of direct services to this population within the general education setting by developing a model for providing support to general education staff and developing a referral procedure for interagency collaboration. The project also plans to develop a model for case management services for children with SED and their families. A small working committee, the SED Interagency/Community Committee, will be established under the newly created Council for Children, Youth, and Families. (Council membership includes representatives from community, business, private service providers, and parents.)

The committee will assess the feasibility of a system of services for children with SED and their families and recommend strategies and programming changes necessary to promote better service delivery. The model will be based on the results of this assessment. The committee will work with the MCPS coordinator for programs for students with SED, the local CASSP coordinator, and the SED Initiative program/case manager to study emerging issues related to the delivery of interagency services to children and youth with SED and their families. The committee will also work on developing interagency agreements aimed at strengthening the connections between the school system and other agencies providing support services to the identified populations. A school will be selected and the case manager will work with the students, families, and staff to determine services needed by the students with SED as well as those that are currently being provided. The case manager will develop and monitor IEPs to assure inclusion of appropriate social, behavioral, and academic goals for students with serious emotional disturbance. The case manager will share with the committee and project staff service delivery and accessibility issues.
FIELD-BASED SYSTEM CHANGE FOR SED PROGRAM: A MULTIAGENCY APPROACH

ABSTRACT

PURPOSE: A cooperative venture involving local education agencies, the state education agency, and the Institute for the Study of Developmental Disabilities will draw upon knowledge in interagency cooperation, family involvement, effective intervention, and training to develop and implement a model program for students with emotional and behavioral disorders.

METHOD: The project will accomplish its goals through the activities of five Project Teams. The primary mission of Team I will involve an analysis and synthesis of the literature on organizations, agencies, and interagency models related to delivering services to children with SED and other types of disabilities and their families. Team I will also interview individuals who have established and maintained interagency arrangements to ascertain what common elements are critical for success. Team II will review the literature on interventions with children with SED to identify effective model programs, program components, strategies, program policies, and procedures. Team III will identify appropriate professional training objectives, approaches, and procedures; develop a curriculum and instructional materials; develop a training schedule and select appropriate faculty to implement the training curriculum. Team IV will conduct a statewide needs analysis related to services for children with SED children in Indiana. Team V will involve both the combined and independent efforts of three school districts — Clark County, Indianapolis, and Elkhart County — to develop a working model of services for children with SED based on the results of information gathered by the other teams.

ANTICIPATED PRODUCTS: Project outcomes will include a comprehensive Working Plan for the delivery of services to children with SED in Indiana. In addition, a set of at least five self-study modules will be developed for use by participating LEAs to develop local system change plans. Modules will focus on the areas of screening and assessment, interagency collaborations, effective practices, training, and policies.
Analysis of Aggressive Behavior of Children with Severe Emotional Disturbance in School Environments

GRANT NUMBER: H023C00127
BEGINNING DATE: 6/1/90 ENDING DATE: 5/31/93

ABSTRACT

PURPOSE: This project will investigate the school environment as it may affect the development and/or maintenance of aggressive behavior among children classified as seriously emotionally disturbed.

METHOD: This research project will focus on the social interactions of aggressive children with teachers and p'ers. Two direct observational research studies will be conducted and analyzed.

ANTICIPATED PRODUCTS: The results of this research project will help teachers predict and/or control aggressive behavior.

Classification and Identification of Internalizing Subtypes

GRANT NUMBER: H023B10010
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: The purpose of this project is to consider simultaneously the problems associated with internalizing behaviors of children with serious emotional disturbance. Through the techniques of cluster analysis the project will identify behavioral patterns that may influence practices of classification and identification as well as future programming and intervention techniques for these children.

METHOD: Subjects for this study will be approximately 100 fifth and sixth grade regular education teachers and 400 of their regular education students. Using the Systematic Screening for Behavior Disorders (SSBD), teachers will rank their students in order from most to least internalizing. From these rankings the teachers will identify the two students in the middle (indicating average behavior) and the two students ranked at the top of the list (indicating most internalizing behavior) and complete the following four questionnaires pertaining to each identified student: the Child Behavior Checklist-Teacher Report Form, the Louisville Behavior Checklist, the Revised Behavior Problem Checklist, and Stage II of the SSBD. Scores on these measures will be plotted to create profiles for each student, and similar profiles will be grouped together to produce clusters. For the purposes of external validity, the following four standardized self-report instruments will be scored for each identified student: Revised Children's Manifest Anxiety Scale, Children's Depression Inventory, Revised Fear Survey Schedule for Children, and the Matson Evaluation of Social Skills in Youngsters. Analyzed data will be used to: 1) identify the strengths and weaknesses of students nominated as internalizing by their teacher; 2) compare the strengths and weaknesses of teacher-nominated internalizers to their same-aged peers; and 3) identify overall internalizing behavioral patterns and subtypes.
ANTICIPATED PRODUCTS: Dissemination activities will include the student investigator's doctoral dissertation, journal articles, conference presentations, and presentations of findings to participating school districts.

Project CASEDS: Collaboration Assists Seriously Emotionally Disturbed Students

GRANT NUMBER: H237B10041
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT
PURPOSE: This project proposes to design a new collaborative service delivery model for children and youth with serious emotional disturbance in the Jefferson County Public School system. In addition to several state and local mental health and social service agencies, parents and families of these children will be involved in the development of the new model.

METHOD: The first phase of the project will involve the selection of three committees to work collaboratively to develop effective strategies for the identification and treatment of children with serious emotional disturbance. The first committee will focus on strategies for children whose families are from racially, ethnically, or linguistically diverse populations (Parent Advocacy/Ethnic and Cultural Diversity Committee). The Committee on Identification and Assessment/Delivery of Services will work on integrating validated practices into a coordinated system for delivering educational and human services. The Committee on Interagency Coordination will design an implementation plan for the coordinated delivery of a full range of school and community services and develop collaborative agreements among service agencies and organizations to pool financial resources to facilitate improved service delivery. The project will also develop a comprehensive training plan designed to empower students, parents, and families of children and youth with serious emotional disturbance. The project will develop collaborative agreements among service agencies and organizations to pool financial resources to facilitate improved service delivery. The goals of the project are designed to be met in two phases. During Phase I, participating agencies and parents will conduct a comprehensive assessment and evaluation of current practices to build a foundation on which to construct a collaborative service delivery model which will address the weaknesses identified. Committees will receive training in team building skills and information about current research and programs for students with serious emotional disturbance. The second phase of the project will be devoted to the implementation of the service delivery model developed during Phase I.

ANTICIPATED PRODUCTS: A pilot collaborative service delivery system for children and youth with serious emotional disturbance will be designed. Products will include a resource guide for families of children with SED.
The Kansas Parent Educational Alliance for Model SED Program Development

GRANT NUMBER: H237B10026  BEGINNING DATE: 10/1/91  ENDING DATE: 3/31/93

ABSTRACT

PURPOSE: The Kansas proposal contains a dual planning process which will develop two rural delivery systems: one to address the family and service providers' identified needs of children and youth who have been identified as seriously emotionally disturbed (SED) and exhibit aggressive acting out behavior, the other to address the family and service providers' identified needs of students with SED who exhibit withdrawn and depressed behaviors.

METHOD: Two rural Kansas intermediate education agencies who serve 87 unified school districts across 22 Kansas counties will each develop a model with input from families and multiple service providers in their respective areas to provide for service continuity. At midpoints in the funding year, the agencies will join to collaboratively critique and process each other's models which address the needs of each population of SED students and their families. First, each agency will develop a needs assessment process which identifies the current system through parent, staff, and other service providers' verification of need. Second, each agency will develop a service system which addresses local problems in the area assigned: aggressive or withdrawn behaviors. Subsequently, the agencies will share their model in formal exchanges to further develop and refine their systems. Finally, each will provide technical assistance to the other as the shared models are adapted to their own unique needs. Both models will involve representatives from the following groups: students, parents, advocacy groups, local schools, local service providers, judicial systems, universities, and the State Board of Education. Each model will provide: positive learning outcomes, support for families, professional development, empowerment, systemic change, and early identification and intervention.

ANTICIPATED PRODUCTS: The project will produce a well documented model development process and two model programs for children and adolescents with SED. Results will be disseminated via technical assistance, conference presentations, SpecialNet, and published articles.

Transition to Adult Life for Secondary Age Students with Emotional Disturbance

GRANT NUMBER: H023C00054  BEGINNING DATE: 9/1/90  ENDING DATE: 8/31/95

ABSTRACT

PURPOSE: This project will evaluate the effectiveness of restrictive and nonrestrictive settings in preparing students with emotional disturbance for adult life.

METHOD: The project will add to the current knowledge base regarding the postschool adjustment of students who have emotional disturbance who access secondary education programs in settings which represent a range on the integration to segregation continuum of service options.
The project will identify relationships between student centered and school experience variables and the level of postschool adjustment of students with emotional disturbance.

ANTICIPATED PRODUCTS: The research findings will be disseminated by offering recommendations for programmatic revision based on the results of the research, assisting in the institutionalization of the proposed student tracking model in the research settings, and developing and disseminating guidelines for implementation of the model in settings across the country.
SECTION 8:

SEVERE DISABILITIES
The Effects of High Probability Requests on the Acquisition and Generalization of Social Interactions of Young Children with Severe Disabilities

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GRANT NUMBER: H023B10069
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/92

ABSTRACT
PURPOSE: This project is designed to investigate the effects of behavioral momentum on the social initiations, responses, and interactions of young children with severe disabilities.

METHOD: Participants in the study will include three young children (ages 4 to 8) with severe disabilities, who have been identified as socially withdrawn or isolated. These children will be enrolled in an early childhood intervention program in a supporting school district in metropolitan Houston. Up to eight children without disabilities (three "training peers" and the rest "nontraining peers") will also be selected for each of the target youngsters. The study will be conducted and the data will be collected in each participant’s regular integrated play settings. Trainers (i.e., the supervising teachers of participating students) will be taught to implement a series of high-probability requests (instructions or requests with which the participant has a history of responding) followed by low-probability requests (requests to extend a social initiation to a peer who is not disabled). Observational research methods consistent with a multiple baseline design across trainers will be utilized to examine and evaluate the effects of the momentum intervention. Outcome measures will include each participant's social initiations, social responses, continued interaction, and performance of high and low probability requests.

ANTICIPATED PRODUCTS: Information about the study will be disseminated through research manuscripts submitted to professional journals and presentations to regional, state, and local audiences.

Predictability and Severe Problem Behavior for Students with Severe Disabilities

PRINCIPAL INVESTIGATOR: Flannery, K. Brigid; Homer, Robert
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GRANT NUMBER: H023B10001
BEGINNING DATE: 10/1/91 ENDING DATE: 3/31/93

ABSTRACT
PURPOSE: This project will examine the relationship between predictability and problem behavior of students with severe intellectual disabilities. It addresses a perceived conflict between recommendations that such students need highly structured, consistent learning settings and that such students be included in the natural school environment (which is inherently highly variable.) A graduated training protocol for increasing predictability and decreasing behavior problems in more varied contexts will be evaluated.

METHOD: Three students with moderate/severe mental retardation and with significant behavior problems during transitions or changes in routines will serve as subjects. Functional assessment will be determined through interviews with family members and direct observation in a natural integrated setting. A student's ability to predict critical events will be evaluated by questions of present activity, sequence, duration, and consequence. Students will be provided with a schedule of activities and a timing device and...
receive training in their use to increase predictability. The frequency of behavior problems and the student's ability to predict will then be assessed for 1) a constant schedule; 2) a random schedule; and 3) after predictability training.

ANTICIPATED PRODUCTS: The anticipated product is a paper providing empirical documentation that such students can, with training, improve their ability to predict events in their daily schedules.

Transition from School-to-Work Support Services Model

GRANT NUMBER: H023N10017
BEGINNING DATE: 1/1/92 ENDING DATE: 12/31/94

ABSTRACT
PURPOSE: The purpose of this project is to develop and evaluate the effectiveness of a support services model for the transition from school to work for students with severe disabilities.

METHOD: Literature reviews, field testing, and other strategies will be used to finalize a support services model consisting of three complementary components: extending individual competence, developing natural supports in the workplace, and promoting social acceptance. Instruments will be developed to assess the degree of implementation of the model and to determine the effectiveness of the model in relation to student outcomes such as length of employment, wages earned, and level of independence. The model will be implemented by project staff in one local education agency with eight secondary age students with severe disabilities. Subsequently, a training module will be developed for vocational teachers, and two teachers will replicate the model with a total of 16 students at two sites. Both single-subject and traditional comparative group experimental designs will be used to evaluate the degree of implementation and its effectiveness in achieving student outcomes.

ANTICIPATED PRODUCTS: A training module comprising implementation guides, an inservice program, and technical assistance follow-along services for national dissemination to vocational teachers and transition specialists. Other products will include journal articles, clearinghouse reports, presentations, and technical assistance to service providers.

The Effects of Preferred Curricular Activities on the Problem Behavior of Individuals with Severe Handicaps

GRANT NUMBER: H023B10059
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT
PURPOSE: The project will investigate the impact of preferred versus non-preferred curricular activities on the problem behaviors of students with severe disabilities.

METHOD: Two experiments are proposed involving five individuals who have been diagnosed as having severe mental disabilities and/or autism, and who also have a history of behavior problems and have skill deficits in most major skill domains. In the first, an assessment of task preference will be demonstrated and systematically evaluated. The preference assessment will involve designing a series of activities based on objectives dictated by...
the student's Individualized Education Program (IEP). These activities will require the same response topographies, but will consist of different materials, and produce different functional outcomes. The tasks will be presented to the student, and the student's response will be rated on a scale designed for assessments of preference. In the second experiment, the assessment results will be used to compare the preferred task with other (nonpreferred) tasks. Single-subject reversal designs will be used to compare the curricular activities through measures of the student's problem behaviors and level of student performance (i.e., percent correct, rate) on instructional material.

ANTICIPATED PRODUCTS: The outcomes of the project will be in the form of journal publications, conference presentations, and training activities targeted toward teachers of students with severe disabilities who have challenging behavior problems.

Teaching Spontaneous Language to Preschoolers with Severe Disabilities

GRANT NUMBER: H023C00053
BEGINNING DATE: 9/1/90 ENDING DATE: 8/31/93

ABSTRACT
PURPOSE: The project will examine strategies for the establishment of spontaneous language as a function of listener preparatory behaviors and other contextual variables.

METHOD: The project consists of one descriptive study, four experimental studies, the development of an assessment tool, and a training manual for practitioners. The descriptive study will examine the spontaneous language behaviors in the classroom environment of children with severe disabilities who are independently mobile versus those who are not. The experimental studies focus on various aspects of listener preparatory behaviors.

ANTICIPATED PRODUCTS: The project is expected to expand our existing database on the nature of spontaneous language/communication in the natural environment, the role of contextual variables and listener preparatory behavior in spontaneous language/communication, and the effects of milieu training methods for facilitating spontaneous communication.

Academic and Social Interventions to Promote Mainstreaming and Integration for Students with Autism in Public School Settings

GRANT NUMBER: H023C00024
BEGINNING DATE: 7/1/90 ENDING DATE: 6/30/93

ABSTRACT
PURPOSE: This project will investigate procedures that will facilitate mainstreaming and integration into regular classrooms for students with autism.

METHOD: Components include a thorough environmental assessment of public school settings to determine a functional match of what is available to
the needs of students and staff. Information workshops for all students and staff and short-term integration projects will orient people towards students with autism. Three techniques to facilitate and maintain academic integration will be investigated: peer tutoring, cooperative learning groups, and direct instruction groups. Three techniques to facilitate and maintain social integration will be investigated: peer monitoring, social skills groups and adult coaching with normal peers.

ANTICIPATED PRODUCTS: An effective, functional model for mainstreaming and integrating children with autism will be disseminated.

School-to-Work Transition of Youth with Severe Intellectual Disabilities: Empirical Analysis of Job Support Strategies

GRANT NUMBER: H023C90098
BEGINNING DATE: 9/1/89 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: This study will experimentally assess the effectiveness of job support strategies used with students with severe (intellectual) disabilities in their transition from school to work.

METHOD: A different study will be conducted each year for 3 years, each involving 4-6 students placed into jobs. Strategies studied shall be: job skill acquisition and job skill performance in Year 1; systematic fading of the job coach and job skill maintenance in Year 2; and the application of self-management strategies in Year 3. Each study will employ a single subject multiple baseline across subjects and task design, followed by a systematic withdrawal of the interventions. Each year data will be gathered on social integration; impact on families; and consumers, family, employer, and co-worker satisfaction with the program.

ANTICIPATED PRODUCTS: The project will develop research monographs; local, state, and national presentations; and training modules for supported employment personnel.

Effects of Position and Movement on Attention and Communication of Students with Profound and Multiple Disabilities

GRANT NUMBER: H023N00004
BEGINNING DATE: 9/1/90 ENDING DATE: 8/31/92

ABSTRACT

PURPOSE: This project will evaluate whether or not position and movement influence the biobehavioral state, physiological measures of arousal, and communicative interactions of students with profound multiple disabilities.

METHOD: The effects of position and movement will be assessed in the students' classrooms. Relations between position, biobehavioral state, and communicative interactions during a typical, uncontrolled, school day will be examined. The effect of students' positions on their communicative interactions and their opportunities for interaction will be examined.
ANTICIPATED PRODUCTS: Inservice training in positioning and handling for teachers and classroom assistants of students with severe neuromotor impairments is one indirect result of the project.

**General Case Communication Skill Training for Students with Severe Disabilities**

**GRANT NUMBER:** H023A10055  
**BEGINNING DATE:** 10/1/91  
**ENDING DATE:** 3/31/93

**ABSTRACT**

PURPOSE: This research project will evaluate the use of a systematic general case approach for conceptualizing, assessing, and training functional communication skills with individuals with severe disabilities. The approach is based on principles and procedures of the Direct Instruction teaching system. A major feature of the model is analysis of the “universe” in which students will eventually perform the skill and ensuring an appropriate range of variation in training to facilitate generalization.

METHOD: Six to eight persons with severe disabilities (age range 8 to 21 years) will participate. Specific communication target skills will be identified for each individual. An assessment of the environments in which the person is currently participating will be followed by general case analysis procedures including definition of the instructional universe and selection of examples for training and probe testing. Training effectiveness will be evaluated in nontrained probe examples or situations. The rate of problem behaviors and data on skill acquisition during training sessions will also be evaluated.

ANTICIPATED PRODUCTS: Products will include a concept paper on applying General Case principles to assessment and training of communication skills. Dissemination of project results will be through expanded local collaboration, publications, local/regional conference presentations, and preservice and inservice training.

**Setting Events and Severe Problem Behavior for Students with Severe Disabilities**

**GRANT NUMBER:** H023B10051  
**BEGINNING DATE:** 10/1/91  
**ENDING DATE:** 9/30/92

**ABSTRACT**

PURPOSE: The 1-year project will study the role of “setting events” (experiences that change the value of existing consequences, e.g., pain and response to a teacher’s request) on the education of students with severe disabilities.

METHOD: The first project objective will be to develop a paper defining the theoretical role of setting events in the support of students with severe problem behavior. A theoretical model will be proposed that integrates recent expansions of understanding of stimulus control in complex applied contexts, and offers researchable hypotheses for how setting events influence problem behavior in natural contexts. The second objective will be to conduct an empirical analysis evaluating the relationship between setting...
events and problem behavior. Six high school students with severe disabilities (moderate, severe, or profound mental retardation) and severe problem behaviors will be monitored for 100 school days. Setting events (such as exercise, no sleep, or sickness) will be recorded by the family and the teaching staff. In addition, student behavior during instruction will be videotaped and coded with real-time observation techniques. The result will be a controlled, systematic analysis of the conditional probabilities of problem behaviors given specific setting events, and the relationship between setting events and the probability of different student behaviors in instructional contexts.

ANTICIPATED PRODUCTS: The procedures and information developed in this project will be incorporated into training modules for teachers. A dissemination program will include reports, a concept paper, and conference presentations.

Feeding Problems of Children with Severe Disabilities: Evaluation and Treatment

GRANT NUMBER: H023C00075
BEGINNING DATE: 9/1/90 ENDING DATE: 8/31/93

ABSTRACT

PURPOSE: This project will study feeding problems, that is, inappropriate parent-child interactions and inadequate nutritional intake in children with severe disabilities.

METHOD: Direct observation of subjects will be conducted in the classroom and home settings during play, tasks, and mealtime situations so that interactions between these subjects and either their parents or teachers can be assessed.

ANTICIPATED PRODUCTS: For each feeding problem identified, a training and treatment package will be developed and implemented. These packages can be used to help the parents and teachers.

A Taxonomic Approach to the Nonaversive Treatment of Maladaptive Behavior of Persons with Developmental Disabilities

GRANT NUMBER: H023C00092
BEGINNING DATE: 9/19/90 ENDING DATE: 8/31/93

ABSTRACT

PURPOSE: The purpose of this project is to determine whether a taxonomy can be developed which will allow us to base treatments on a functional analysis of the conditions maintaining severe behavior problems.

METHOD: The project will use a taxonomy to determine the conditions maintaining severe maladaptive behaviors. From the conditions maintaining behavior, it will develop a hypothesis of whether the behavior is maintained because of positive reinforcement, negative reinforcement, or stimulation. The hypothesis indicated by the taxonomy will be tested against one contraindicated, and the validity of the taxonomy will be evaluated by comparing the effects of the indicated and contraindicated treatments.
Anticipated Products: The project will improve the efficacy of nonaversive procedures.

Achieving Supported Employment for Students Severely Handicapped by Developmental Disabilities and Challenging Behavior Before and After Graduation

Grant Number: H023C10149
Beginning Date: 7/1/91 Ending Date: 6/30/94

Abstract

Purpose: The project will investigate the relationship of challenging behavior to a number of employment variables and will develop a reference manual describing over 150 supported employment jobs and the necessary supports and adaptations, which were held by people who are severely disabled by developmental disabilities and associated behavior problems.

Method: The participants in this project are 50 adults and 6 students who are severely disabled by autism, who have IQ's ranging from severely mentally retarded through high average, and who have held jobs in the community under the supervision of Community Services for Autistic Adults and Children (CSAAC). Focus on these participants will include the following activities: examination of the nature and incidence of challenging behaviors (such as aggression and self-injury); examination of the implementation of nonaversive behavior management strategies provided to control destructive behaviors; evaluation of the effects of these strategies on the targeted behaviors; and examination of the relationships between incidence and severity of challenging behaviors and various aspects of employment and vocational development, including length of time employed, number of jobs held, wages, raises, and types of jobs. Additionally, this project will survey 10 years of supported employment of people with severe autism and behavior problems and develop a reference manual describing over 150 jobs held, the characteristics of the individuals who held the jobs, and the adaptations and behavior management supports provided. Methods for developing IEP goals based on specific job descriptions will be provided as well as sample transition, vocational IEP goals and specific goals related to social and behavioral development.

Anticipated Products: The primary product will be the reference manual on supported employment. Additional dissemination efforts will include presentations at state and national conferences, publications in professional journals, and the use of the onsite training system at CSAAC.

Multivariable Analysis of Severe Problem Behavior

Grant Number: H023N10010
Beginning Date: 10/1/91 Ending Date: 9/30/94

Abstract

Purpose: The project will develop and field-test a comprehensive model for assessing and treating high intensity problem behaviors by students with severe disabilities.
METHOD: A concept paper that defines the theoretical and clinical basis for treating high intensity problem behavior will be developed. A comprehensive data collection system for analyzing sequential/ecobehavioral relationships across a variety of classroom and community settings will be developed and field-tested with students with severe disabilities who attend public schools. In the final study, three students will be involved in a comparative analysis of punishment and functional equivalence training on behavioral response class. The studies will employ a computer-assisted direct observation system and clinical tracking of specific setting events hypothesized to affect the behaviors of concern. Data will be analyzed via single subject methodology, calculation of lag sequential conditional probabilities, analysis of response effort and intensity, and social validity of the data summaries.

ANTICIPATED PRODUCTS: Project outcomes will include an increased knowledge base, a measurement system to monitor and evaluate intervention progress, an intervention model, and teacher/staff training modules for use by technical assistance personnel, teacher trainers, researchers, and clinicians. Products will include newsletter and journal articles, conference presentations, and training manuals.

Work and Integration in Supported Employment

GRANT NUMBER: H023N10007
BEGINNING DATE: 9/1/91 ENDING DATE: 8/31/94

ABSTRACT

PURPOSE: The purpose of this project is to develop a strategy for increasing social integration between employees with and without disabilities in supported employment settings.

METHOD: Three studies will be conducted with 10 adults who have severe mental retardation, poor social interaction skills, and communication disorders. These adults will be placed in supported employment situations at a hospital or other local business. Study One will evaluate whether a treatment package consisting of conversational skills training, social language skills training, and question-asking during conversation will result in an immediate and generalized increase in social interactions with coworkers. Study Two will evaluate the effectiveness of communication skills training with five different subjects. Study Three will determine the effectiveness of teaching coworkers without disabilities how to instruct employees with disabilities. The majority of the research will utilize single subject methodology; in addition, questions concerning the effectiveness of different measurement systems (clique analysis, global measures, and social validation) will be answered.

ANTICIPATED PRODUCTS: Proposed products include journal articles, conference presentations, and review papers targeted for speech language consultants and other practitioners.
Enhancing Communication Skills of Young Children with Severe Disabilities through Partner Programming

GRANT NUMBER: H023C00126
BEGINNING DATE: 9/1/90 ENDING DATE: 8/31/95

ABSTRACT

PURPOSE: This project will examine the immediate and longer-term effects of early communication and language intervention procedures that are provided to interactive partners of young children with severe or multiple disabilities.

METHOD: The project will address issues including: the use and effectiveness of the procedures for children with varying baseline communication abilities; the use and effectiveness of the procedures across multiple integrated preschool educational programs; and generalization and longer-term gains and/or maintenance of the interactive behavior of partners who receive training.

ANTICIPATED PRODUCTS: The project will result in development and national dissemination of a series of manuals, publication of articles, and provision of professional training workshops. These products will facilitate the translation of project findings into practice.

Constant Time Delay: Effects of Varying Levels of Procedural Fidelity

GRANT NUMBER: H023A10049
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: This project will conduct three investigations to evaluate the constant time delay procedure for response prompting. Emphasis will be on evaluation in natural settings in which the procedure is implemented with less consistency than in research settings. This information will allow recommendations to be made to teachers concerning effective adoption of the strategy.

METHOD: The studies will be conducted in a mainstreamed preschool program that enrolls children with autism and utilizes a small group instructional arrangement. The adapted alternating treatments design will be used. Behaviors taught will be based on objectives established on students' Individualized Education Programs. Direct daily observation of students' performance will be the primary data collection strategy. Effects of consistent and inconsistent use of the constant time delay procedure will be assessed on the children's acquisition (evaluating both effectiveness and efficiency of the procedure), maintenance, and generalization of target behaviors.

ANTICIPATED PRODUCTS: A manual will be developed for dissemination purposes. This manual will describe the results of the investigations and will be appropriate for training teachers of young children with disabilities to use the constant time delay procedure. Other dissemination formats will include publication in the professional literature and presentation at professional conferences (at least four written reports and one conference presentation). Manuals will be distributed to interested practitioners with availability publicized through Special Net.
SECTION 9:

TEACHER TRAINING, RETENTION, AND SUPPLY AND DEMAND
Teacher Retention, Attrition, Shortage, and Qualifications in Special Education: Analysis and Dissemination of National Survey Data Relevant to Federal and State Policy

GRANT NUMBER: H023C10088
BEGINNING DATE: 9/1/91  ENDING DATE: 8/30/93

ABSTRACT

PURPOSE: The goal of this project is to analyze national survey data on the retention, transfer, and attrition of special education teachers.

METHOD: Nationally representative, large-scale survey data, collected by the National Center for Education Statistics (NCES) will be analyzed in accordance with a Comprehensive Retention and Attrition Model (CRAM). Data tapes based on the 1987-1988 Schools and Staffing Survey and the companion Teacher Followup Survey of the NCES will provide data for analysis. The special education teachers who have remained in their primary teaching assignments and those who have left will be compared. Parallel tabulations will be made for teachers in general education so that comparisons with special education can be made. These variations will also be analyzed in accordance with the age, gender, race/ethnicity, marital status, and certification status of the teachers, and as a function of teacher incentive variables (such as salary differentials and urbanicity of school sites) impacting on these teacher career decisions. Finally, characteristics of teachers who plan to reenter teaching will be tabulated.

ANTICIPATED PRODUCTS: Reports based on these analyses will be disseminated through direct distribution to federal agencies and national professional organizations in special education, publication in special education periodicals, presentations at professional meetings, inclusion in relevant document depositories, and the electronic network serving special education.

Research Into the Retention and Attrition of Special Education Teachers

GRANT NUMBER: H023Q10011
BEGINNING DATE: 1/1/92  ENDING DATE: 12/31/94

ABSTRACT

PURPOSE: Research will be conducted to describe the broad range of forces, including factors related to personnel preparation, that contribute to the attrition rate of special education teachers in urban schools. The research findings will be integrated into a strategic plan designed to increase retention and reduce attrition in the districts.

METHOD: Surveys will be conducted of special education teachers in two multiethnic school districts: San Diego Unified School District and San Jose Unified School District. A literature review and telephone interviews with teachers who have left, are leaving, and those remaining will be used to identify influencing variables such as school demographics, credential requirements, teacher preparation, and type of teaching assignment. A variety of statistical procedures will be employed including descriptive analyses, survival analysis, and analysis of continuous data. A critical incident study will ask teachers to recall events critical to their decisions to
remain in or leave the field. A study involving four campuses will focus on variables relating to preservice students.

ANTICIPATED PRODUCTS: Anticipated outcomes include a detailed and comprehensive analysis of the attrition and retention factors in the two districts and a strategic plan designed to increase retention.

Developing and Evaluating Interventions Aimed at Increasing Retention of Special Education Teachers

GRANT NUMBER: H023N10031
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/94

ABSTRACT
PURPOSE: The 3-year project proposes to examine the combined and differential effects of two interventions designed to reduce the likelihood of special education teacher attrition by alleviating burnout and enhancing job satisfaction.

METHOD: Special education teachers and related service personnel serving in teaching roles (e.g., itinerant specialists) from the Eugene-Springfield area (IL) will participate in two interventions: 1) a series of stress management workshops aimed at preventing or alleviating teacher burnout and 2) a peer collaboration program designed to facilitate supportive collegial interactions among pairs of teachers regarding work-related problems. The interventions will be developed, implemented, and evaluated locally in the first 15 months and replicated in the second 15 months at another site (45-60 participants per site). A modified cross-over design will be employed to assess the interventions' combined effects, differential effects, and order effects. Follow-up measures will be administered to the treatment groups to ascertain the extent to which treatment effects are maintained over time. Dependent measures will include degree of burnout experienced, job satisfaction, and organizational commitment. Demographic and social validation measures will be employed and multivariate analysis of covariance will be conducted. Turnover rates for treatment groups will be compared with school districts overall turnover rates.

ANTICIPATED PRODUCTS: Dissemination activities will include regional and national conference presentations, journal articles, and contributions to education databases.

Proact: Planning, Reviewing, and Ongoing Assessment Among Classroom Teachers

GRANT NUMBER: H023E90020
BEGINNING DATE: 10/1/89 ENDING DATE: 9/30/93

ABSTRACT
PURPOSE: This project will (a) determine how teachers collect and use student performance data in daily and long-range planning and (b) develop and field-test interventions that increase teacher skills, confidence, and motivation in planning, adapting, and individualizing instruction.

METHOD: Teacher practice will be investigated. Key variables in teachers successful accommodations to students with disabilities and the achievement of those students and their peers will be identified and quantified. These studies will investigate a conceptual model posed to explain teachers
accommodations. In Year 1, descriptive data will be collected. In Years 2-4, interventions will be made and their effects assessed. The interventions include peer tutoring/explicit teaching, social/task related cognitive behavior management strategies, and computerized curriculum-based measurement.

ANTICIPATED PRODUCTS: Research reports will be written to describe teachers' typical practices, the effects of the interventions, and the importance of each of the three interventions. The project will also produce improved curriculum based measurement software, improved explicit teaching procedures, improved peer tutoring structures, enhanced large group management strategies, and a training manual.

Attrition/Retention of Urban Special Education Teachers
Multi-Faceted Research and Strategic Action Planning

GRANT NUMBER: H023Q10006
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/94

ABSTRACT

PURPOSE: Studies will be conducted to describe and understand the broad range of factors that contribute to the attrition of special education in urban schools and to develop a strategic action plan for implementation by school districts to enhance teacher retention.

METHOD: Surveys will be conducted of special education teachers in four school districts: El Paso, Milwaukee, Portland, and Tucson. A conceptual framework will be articulated to encompass the many constructs and variables that help to describe and may influence teacher retention and attrition including entry path, dimensions of the special education assignment, and working conditions. Demographic, organizational, professional, and personal characteristics will be considered. Project phases will include a first-year survey of all special education teachers in the districts, a second-phase of telephone interviews with teachers who leave for work-related reasons, site visits to interview staff and administrators in the districts, and development of strategic action plans for use by the districts to improve teacher retention. A National Advisory Panel of teachers, administrators, teacher educators, SEA representatives, and others will assist in the refinement of the conceptual framework, interpretation of findings, development of the strategic plan, and dissemination.

ANTICIPATED PRODUCTS: Anticipated products include a set of training tools, guidelines, case studies, and planning formats that can enable other school districts to implement the innovation and adapt it to their own needs.

Training School Personnel to Use Environmental Communication Teaching Methods with Students Who Use Augmentative or Alternative Communication

GRANT NUMBER: H023C90005
BEGINNING DATE: 7/1/89 ENDING DATE: 6/30/92

ABSTRACT

PURPOSE: Environmental teaching techniques use individuals within students' natural environments to teach and facilitate generalized communication. They have been used effectively with students who use augmentative
or alternative communications. This project will train 90 teachers and aides to use these techniques, assess the relative effectiveness of three types of ongoing feedback over 3 years, assess the effects of the environmental techniques on student communication, and develop and evaluate a training package for teacher trainers.

METHOD: Teachers and aides will be randomly assigned to one of three feedback groups; baseline, training, generalization, and maintenance behaviors will be measured by observation. The effects on student behavior will be measured, and a comparison of training by investigators vs. local trainers will be conducted.

ANTICIPATED PRODUCTS: The project will produce workshop presentations, publications, a training package, and final report.

Examining High School Curricula and the Demands on Personnel Educating Students with Disabilities: Mapping Curricular Options and Service Delivery Models in Washington and Utah

GRANT NUMBER: H023U10001
BEGINNING DATE: 11/1/91 ENDING DATE: 10/31/94

ABSTRACT

PURPOSE: The project's four goals are: 1) to map the curricula and service delivery models for students with disabilities in high schools in Washington State and Utah; 2) to analyze current teacher certification standards in the two states; 3) to analyze current teacher preparation programs in the two states; and 4) to offer recommendations for school reform in curricula, service delivery, teacher certification, and teacher preparation.

METHOD: In order to achieve the four project goals, investigators will conduct the following activities: 1) refine conceptual frameworks based on Goodlad's "Study of Schooling" and the DeStefano and Wagner outcome-based model for mapping curricula and service delivery models; 2) survey all Washington and Utah districts that offer secondary high school programs, based on a matrix of curriculum content and service delivery derived from the conceptual framework; 3) conduct qualitative, in-depth case studies of a selected group of approximately eight schools with representative programs, using the Qualitative Case Study methodology; 4) determine student outcomes in the various curriculum models; 5) determine teacher and administrator skills needed to implement the models; 6) study teacher certification standards in Washington and Utah to compare these with actual demands on teachers and administrators identified in the study; 7) analyze teacher preparation programs in the two states in terms of actual demands placed on teachers; 8) make recommendations, via position papers, to seven national organizations with responsibility for teacher preparation and certification; and 9) disseminate information from the project.

ANTICIPATED PRODUCTS: Dissemination activities and outcomes will include presentations at national meetings of professional organizations, collections of technical papers, articles in special education and regular education journals, and a book on the entire project.
Research on General Education Teachers’ Planning and Adaptation for Students with Disabilities

GRANT NUMBER: H023E90011
BEGINNING DATE: 10/1/89 ENDING DATE: 9/30/93

ABSTRACT
PURPOSE: The project will investigate how third grade mainstream teachers plan, adapt, and individualize instruction to meet the needs of students with disabilities in their classrooms. It will develop and field-test interventions designed to enhance teacher planning. The study will focus on language and literacy.

METHOD: The research will be carried out in three phases: 1) conduct an in-depth study of the current planning processes of third grade teachers and associated resource teachers, specialists, and administrators; 2) design a set of interventions to enhance general education teacher planning and individualization to meet the needs of students with disabilities; and 3) implement and field-test the interventions in three school districts.

ANTICIPATED PRODUCTS: In addition to journal articles and presentations, the investigators will present findings of the study to local school administrators, curriculum specialists, state education personnel, language disorder specialists, and publishers of reading and language arts textbooks. They will also provide regular updates of project activities and results on SpecialNet.

The Use of Metaphor by Special Education Teachers to Describe Their Knowledge of Teaching

GRANT NUMBER: H023B10028
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT
PURPOSE: The purpose of this study is to provide relevant information about how experienced teachers in special education employ metaphors to describe their thinking and approaches to the complexities of the classroom.

METHOD: The respondents in this study will be five elementary school special education teachers, each of whom is certified by Virginia to teach special education, has at least 5 years teaching experience in a resource or self-contained class, and is currently employed by the public school system. To the extent possible, the respondents will each represent different certification specialties within the category “mild disabilities” and be working in different classroom settings. The student investigator will conduct three interviews during the course of the study. The initial interview will consist of elicitng and discussing the elements of teaching listed on the “elements” and “constructs” axes of the Kelly Repertory Grid. (The Kelly Grid provides a framework for the classification and examination of the relationships among subject responses to questions posed by the researcher. It has been successfully used in studying the responses of regular educators and their use of metaphors about teaching.) Teachers will be asked questions such as “What sort of things would I see if I visited your classroom next week, assuming that you were doing your best teaching?” Following a factor analysis of teachers’ responses, a second interview will be conducted beginning with a discussion of the factor analysis, labeling of the factors in the factor analysis, and a discussion of teacher motivations that lead to the labeling of the factors. The final interview will consist of member checking, during which the researcher will confirm faithful adherence to the teachers’ comments.
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ANTICIPATED PRODUCTS: Project outcomes will be disseminated through a
write-up of the study, most likely the student investigator’s doctoral dissertation,
the submission of articles to appropriate research journals, and presenta-
tion of the findings at an appropriate educational research conference.

Improving the Retention of Special Education Teachers

GRANT NUMBER: H023Q10001
BEGINNING DATE: 10/1/91   ENDING DATE: 9/30/94

ABSTRACT

PURPOSE: The purposes of this research are to: 1) describe and under-
stand the broad range of forces that are contributing to the attrition rate of
special education teachers in the Memphis City School District (MCSD) and
in urban schools in general and 2) to assist the MCSD in using the research
findings to develop a 5-year strategic action plan to enhance the retention of
qualified special education teachers.

METHOD: A screening study will be conducted to determine job satisfac-
tion and career plans of the current special education workforce. Participants
surveyed in the screening study will then be interviewed in an
“influencing factors” study to understand the influences of career plans,
commitment, and job satisfaction in four distinct groups of special
educators, and to identify questions and response foils for other instruments
used in the study. An exit study will survey special and regular education
teachers who have exited their classroom positions to obtain information
about their background and training, reasons for leaving, and current
positions. A comprehensive commitment and retention study will survey
regular and special education teachers on subjects such as licensure/certifi-
cation, career entry patterns, and future career plans. Results of these stud-
ies will be used to assist the MCSD in developing a 5-year strategic plan to
improve special education teacher retention.

ANTICIPATED PRODUCTS: Research findings and their implications for
practice will be disseminated through journal and newsletter articles, re-
ports to education clearinghouses, presentations at professional meetings,
and final reports.

Research on General Education Teacher Planning and
Adaptation for Students with Disabilities

GRANT NUMBER: H023E90014
BEGINNING DATE: 10/1/89   ENDING DATE: 9/30/93

ABSTRACT

PURPOSE: This project will determine how teachers collect and use perfor-
mance data in daily planning and long-term curriculum and instruc-
tional planning. It will also develop and field-test interventions that increase
classroom teachers’ skills, confidence, and motivation in planning for stu-
dents with exceptionalities in the regular classroom.

METHOD: The first phase will describe teachers’ perceptions and knowl-
dge of preplanning, interactive planning, and postplanning of instruction.
A comprehensive survey of 13,000 urban and rural teachers will provide the
data. The second phase will use a subsample of teachers to describe teach-
ers who plan more than others. The third phase will provide more intensive
descriptive, observational, and interview data on planning processes. Fac-
tors that influence the planning process will also be examined.
ANTICIPATED PRODUCTS: The project will produce a set of materials and procedures for increasing effective planning.

Alternative Certification Programs in Special Education: An Analysis of Components, Impact, and Policies

GRANT NUMBER: H023A10096
BEGINNING DATE: 11/1/91 ENDING DATE: 4/30/93

ABSTRACT

PURPOSE: The research project will conduct an analysis of the components, impact, and policies related to alternative certification programs in special education. Specific goals include: 1) creation of a directory of existing alternative certification models in special education; 2) analysis of data on the impact of alternative certification models on the preparation of teaching personnel and the provision of quality education programs to students in special education; and 3) documentation of historical developments in current social policies, the empirical database, and future trends in alternative certification in special education.

METHOD: The project will use a two-phase, six-step design based upon an elaboration model of survey analysis to collect, analyze, and interpret data on alternative certification programs in special education. In the initial Descriptive Phase, the investigators will search the literature, survey authorities in the field, and interview personnel involved in some 20 existing models and use these data to describe the current status of alternative certification. During the subsequent Analysis Phase, the investigators will evaluate the effects of existing projects; compare existing projects with one another and with traditional teacher education program standards; and analyze local, state, and federal policies to determine the implications of alternative certification for policy and practice in special education. Data analysis will include both qualitative and quantitative methods.

ANTICIPATED PRODUCTS: Dissemination efforts will include articles prepared for publication, reports developed and made available to interested parties, and papers/presentations provided at professional forums and public meetings.
SECTION 10:

TECHNOLOGY AND SOFTWARE
Development of a Transitional Powered Mobility Aid (TPMA) for Training and Achievement of Early Powered Mobility

GRANT NUMBER: H180P00018
BEGINNING DATE: 1/1/91       ENDING DATE: 12/31/93

ABSTRACT
PURPOSE: This project will develop and evaluate the Transitional Powered Mobility Aid (TPMA) for use by children with developmental disabilities from 12 months to 5 years of age who cannot independently use a manual mobility device.

METHOD: Design criteria will be identified by the transdisciplinary research team with input from a survey of therapists. Information will be gathered from literature reviews, consultants, vendors of mobility aids, and examination of currently available mobility aids. After the proposed TPMA is produced, a minimum of 10 children from infant and preschool programs for children with developmental disabilities will test it.

ANTICIPATED PRODUCTS: An affordable transitional power mobility aid (TPMA) for young children consisting of a power base, adjustable positioning frame, and control system.

Teaming With Text

GRANT NUMBER: H023A00068
BEGINNING DATE: 7/15/90       ENDING DATE: 2/14/92

ABSTRACT
PURPOSE: This project will modify a successful computer-network innovation, English Natural Form Instruction, for students who are deaf, ages 11 to 15.

METHOD: The project will integrate successful ENFI practices into the whole-language curriculum at Kendall Demonstration Elementary School (KDES). KDES teachers will be able to identify the specific ENFI activities to observe and test during the TWT Project. A graduate student and the Program Director will observe the replication pilot.

ANTICIPATED PRODUCTS: The project will result in a set of identified, workable, and successful ENFI practices for the target age group; an evaluation of those practices and a description of how they were integrated into the whole-language curriculum; a replication plan; and material for dissemination and training.
Facilitating the Use of Assistive Technology by Special Education Students with Limited English Proficiency

GRANT NUMBER: H180P00007
BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/92

ABSTRACT
PURPOSE: To develop a knowledge base on ways of using technology to provide educational opportunities for students with disabilities and limited English proficiency (LEP).

METHOD: The project will develop and test prototypes of hardware, software, and assistive technology to identify benefits to be derived from technology to compensate for disabilities in the targeted groups. Communication aids and assistive technology which prove to be effective will be selected and adapted for the LEP and nonLEP populations. A marketing plan will also be developed.

ANTICIPATED PRODUCTS: TURNKEY will build upon the current Comprehensive Competencies Program (CCP) which is targeted at special education/LEP youth populations by developing add-on components to assist special education/LEP children and youth in transitioning to traditional education as well as surviving at home and in the work place and community.

Study of Anticipated Services for Students with Handicaps Exiting From School

GRANT NUMBER: H159B00001 BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/93

ABSTRACT
PURPOSE: This project will develop and test a microcomputer-based expert system to convert the individually-based Student Performance Indicator Instrument (SPII) data into aggregate projections of anticipated services for exiting students. These projections could be used by adult agencies to plan the type and extent of the services needed by youth with disabilities.

METHOD: The approach features a Delphi process to inform knowledge engineering for the system, tryout and revision cycles with end-users beginning with the earliest system prototype, and Beta testing by end-users in the field and in AIR's Usability Test Laboratory. Data from early evaluations of the system will be used to refine the SPII prior to field-testing and analyzed results from evaluations of the system will be used to refine the list of services and definitions currently used by states for Federal reporting of anticipated services data. SPII data will be obtained for 1,000 students in 10 states, with adequate representation under each disability.

ANTICIPATED PRODUCTS: A final version of the SPII that will be reliable and valid for its intended purpose and will meet the information needs of the expert system.
National Center to Improve the Tools of Educators (NCITE)
(Center at Oregon to Advance Technology, Media, and Materials)

PRINCIPAL INVESTIGATOR:
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GRANT NUMBER: H180M10006
BEGINNING DATE: 10/1/91 ENDING DATE: 9/1/95

ABSTRACT
PURPOSE: This project will establish a center to advance the quality of technology, media, and materials (TMM) for providing special education and related services to children with disabilities.

METHOD: The Center will evaluate technology, media, and materials across age groups (early childhood to transition), disabilities (mild to severe), and outcomes (enhancing academic learning to improving social relationships). Partnerships will be formed with major stakeholders including parents, teachers, administrators, researchers, developers, producers, distributors, and representatives of private industry. Major activities will include: developing a strategic framework for aligning design of TMM with needs of children, educational activities, and procedures; conducting analyses and syntheses of quality TMM; providing networks, exchanges, meetings, and focus groups to review and exchange information; and developing and disseminating materials which provide guidance to TMM developers, producers, and distributors/publishers.

ANTICIPATED PRODUCTS: Products for dissemination will include research syntheses, newsletters, and guidelines for producers, developers, and publishers of TMM.

Project TIPS: A Tactile Signing Project - Interactive Signing and Printing Signaling

GRANT NUMBER: H180P00041
BEGINNING DATE: 1/1/91 ENDING DATE: 12/31/92

ABSTRACT
PURPOSE: To develop and package a system of tactile signaling and tactile interactive signing and fingerspelling for individuals who are deaf-blind.

METHOD: The project will build on a currently funded compensatory technology project to develop a complete, mediated tactile communication system for individuals who are deaf-blind. Input from potential users as to what they like and do not like about a suggested media format will be obtained.

ANTICIPATED PRODUCTS: Products will be a complete tactile signing system for deaf-blind individuals, from primitive signaling through interactive signing, resulting in a complete communication methodology for people who are deaf-blind. The documentation and videotapes will be utilized by the special education profession, families of individuals who are deaf-blind, and the individuals who are deaf-blind themselves.
Development or Adaptation of Innovative Technologies to Enhance Learning and Development of Children with Disabilities

GRANT NUMBER: RN91076008
BEGINNING DATE: 1/30/91 ENDING DATE: 1/30/92

ABSTRACT
PURPOSE: This project will develop a Software Interface for students with learning disabilities (LD) to provide individualized enhanced video and auditory cues for reading and mathematics. The goals are to: 1) pilot the development of the Software Interface for creating Multi-Access Text Environments (MATEs) to enable students with learning disabilities to accommodate for individual perceptual deficits by creating specific encoding and decoding cues for reading and mathematics; 2) create a computerized diagnostic assessment test to identify visual perceptual and auditory strengths and weaknesses; and 3) design individual prescriptive MATEs for students with learning disabilities.

METHOD: The project design is based on three principles: 1) cost effectiveness to school districts; 2) utilization and adaptation of existing computer technology; and 3) need to decrease the amount of special education support services required by students with learning disabilities and increase their ability to function independently. Objectives include: identifying and categorizing visual and auditory perceptual and integration problems as well as memory and attention abilities of students with LD; creating individual prescriptive protocols for assessing visual and auditory perceptual abilities; and providing an enhanced computer learning environment.

ANTICIPATED PRODUCTS: Three computer programs, READIT, CHECK, and GUIDE, will be developed as a result of this project.

Integrated, Computerized Systems for Eco-Behavioral Classroom Observation: Assessment Tools for SEA and LEA Personnel

GRANT NUMBER: H180B00005
BEGINNING DATE: 7/1/90 ENDING DATE: 6/30/92

ABSTRACT
PURPOSE: This project will develop a software product which would make observational assessment instruments in special education research available to LEA personnel responsible for assessment, placement, evaluation, school improvement, and research.

METHOD: The product will be based on existing software but converted and expanded into a user-friendly, state-of-the-art software system operating on laptop computers with hard-disk drives. The process will include needs analysis, product development, field trial, product refinement, and marketing and dissemination.

ANTICIPATED PRODUCTS: The result will be a flexible and compatible laptop software system that makes accessible to LEA personnel the Code for Instructional Structure and Student Academic Response, Ecobehavioral
for Complex Assessments of Preschool Environments, and the Mainstreaming Version of CISSAR.

An Examination of Cognitive Challenges and Pedagogical Opportunities for the Development of Multimedia Information Systems

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GRANT NUMBER: H18000011
BEGINNING DATE: 9/1/90  ENDING DATE: 8/31/92

ABSTRACT
PURPOSE: This project will study the effect of multimedia instruction on student learning, especially for children having learning problems.

METHOD: The research will study both the cognitive challenges and pedagogical opportunities from the perspective of students with mild disabilities. Research on procedures for helping students who have difficulty with certain aspects of learning cope with the increased navigational and attentional challenges of multimedia will be conducted during the 1st year of this grant. Further studies will be conducted in order to assess the "value added" that the pedagogical opportunities provide.

ANTICIPATED PRODUCTS: The outcome of this project will include a set of empirically tested computer interface and instructional design principles that are critical to the development of multimedia instructional environments for children with learning problems.

Development and Evaluation of Multimedia Prototypes to Provide Individualized Multisensory Instruction

PRINCIPAL INVESTIGATOR: Hazan, Paul L.
Johns Hopkins University
Applied Physics Lab
Johns Hopkins Road

GRANT NUMBER: H18000007
BEGINNING DATE: 7/1/90  ENDING DATE: 6/30/92

ABSTRACT
PURPOSE: This project will design, field-test, and evaluate the effectiveness of an advanced multimedia instruction prototype containing instructional modules and lessons.

METHOD: Computer-assisted instruction methods will be integrated with videodisc and CD-ROM technology to provide a multisensory, interactive, and individualized learning environment. Research and evaluation will be conducted to determine the use and effectiveness from the points of view of teachers and students.

ANTICIPATED PRODUCTS: The fully tested multimedia products will be disseminated to Beta test sites across the nation. Three prototype multimedia instructional modules and exemplary lessons that teachers can use in the classroom, will be designed, developed, field-tested, and evaluated.
Microcomputer Interaction to Enhance Young Disabled Children's Development and Family Expectations

GRANT NUMBER: H180R10012
BEGINNING DATE: 1/1/92 ENDING DATE: 12/31/93

ABSTRACT

PURPOSE: The purpose of this project is to quantifiably demonstrate the impact of interactive microcomputers on the development of young children with disabilities and on satisfaction in parenting.

METHOD: The study will involve 45 children, 18 months to 5 years old, who attend early intervention programs and have a wide range of disabilities including orthopedic impairment with severe motoric limitation, mental retardation, Down syndrome, and related impairments in speech. Fifteen children who use microcomputer assistive technology and software programs will be compared with 30 children with similar disabilities who are not engaged in microcomputer activities. Children in both groups will be assessed with respect to a wide range of developmental functions (including expressive and receptive language, motivation in learning, and social interaction with peers and adults) at the beginning and end of the 12-month treatment and data collection period. Parents' satisfaction and active and reciprocal interaction with their children will also be assessed.

ANTICIPATED PRODUCTS: Written and audiovisual materials will be disseminated to educators, policy makers, professional associates, and parents with the aim of expanding the use of this technology to larger numbers of children, their parents, and teachers.

Effective Use of Technology to Meet Educational Goals of Children with Disabilities

GRANT NUMBER: H180R10020
BEGINNING DATE: 12/1/91 ENDING DATE: 11/30/93

ABSTRACT

PURPOSE: This project will study how assistive technology can be used to achieve educational goals for children with moderate to severe disabilities.

METHOD: A modified naturalistic inquiry approach will be used to collect qualitative data from three sources: children in early intervention programs who are just beginning to use technology applications; children and youth who have been using technology since they were in early intervention programs; and early intervention staff members, administrators, and families whose children use technology applications. Evidence will be collected on the contribution of assistive technology to allow children greater access to learning environments and to enhance the range and effectiveness of learning experiences. Data collection procedures will include observations, videotapes, interviews, questionnaires, records, child products, and assessment measures.

ANTICIPATED PRODUCTS: Anticipated products include a final report, journal articles in professional and parent publications, an overview videotape, a series of case study tapes, and one or more live interactive television shows.
Access to a Common Ecology

PRINCIPAL INVESTIGATOR:
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216-672-2477

GRANT NUMBER: H180P00050  ENDING DATE: 1/31/93
BEGINNING DATE: 2/1/91

ABSTRACT
PURPOSE: The purpose of this project is to develop a switch mechanism that can be used by persons with disabilities for environmental control, augmentative communication, and mobility access.

METHOD: The switch mechanism will be taped to a muscle group over which a person has control and will operate based on the sound a muscle makes when it contracts and expands. Individuals will not be required to engage in motor movements which detract from their social interactions, nor will they be required to develop new movement patterns to access switch technology.

ANTICIPATED PRODUCTS: The most significant outcome is the experimental switch mechanism that operates with the individual at a more basic level than switches currently extant.

The Use of Interactive Video-Assisted Assessment with Youth Who Use Sign Language

PRINCIPAL INVESTIGATOR:
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813-974-2006

GRANT NUMBER: H180B00004  ENDING DATE: 2/28/92
BEGINNING DATE: 9/1/90

ABSTRACT
PURPOSE: This project will use interactive video-assisted assessment to improve the evaluation of generalizable skills in learners who depend on sign language to communicate.

METHOD: Performance scores of subjects who have taken both written and video-assisted assessments will be compared. In addition, differences in the time of assessment administration will be analyzed. Finally, two types of interactive video assessments (sign-only and situational context plus actors who sign) will be compared for effectiveness.

ANTICIPATED PRODUCTS: It is expected that the use of interactive video technology will greatly enhance reliability of data collection and scoring and will reduce the time of administration.

Assistive Technology Use in School, Home, and Community Settings: Documentation and Analysis of the State of the Practice

PRINCIPAL INVESTIGATOR:
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GRANT NUMBER: H180R10004  ENDING DATE: 9/30/93
BEGINNING DATE: 10/1/91

ABSTRACT
PURPOSE: The project will investigate how assistive technology is currently being used by school-age individuals with disabilities; the types of accommodations necessary in order for technology use to be successful; and the potential benefits, drawbacks, and outcomes of its use.

Page 10-7
METHOD: Strand One will consist of a large scale survey effort to document the status of assistive technology use in Pennsylvania, a state with an established service delivery system in this area. Regular and special education teachers, support personnel, administrators, family members, and local augmentative specialists will be surveyed on issues such as differences in technology applications and effectiveness based on geographic setting, student age, and resource availability. Strand Two will use qualitative research methods (participant observation and interviews) to focus on school, home, and community use of technology by eight students who use devices for expressive communication. In Strand Three, single-subject research studies on six students will investigate the effects of technology on student involvement in school, home, and community settings; on academic achievement; and on self-concept. The effectiveness of various instructional strategies used to teach students to use assistive devices will also be explored.

ANTICIPATED PRODUCTS: Research reports will be written and disseminated to professionals. Videos and print materials in a less technical format will be developed for consumers and practitioners.

An Investigation of the Effects of Repeated Listening Experiences on the Intelligibility of Speech Synthesis

GRANT NUMBER: H023B10039
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: This research project will investigate the effect of repeated listenings on the intelligibility of individual vocabulary items produced by two commercially available speech synthesizers. Speech synthesis technology is currently used as an assistive device by many children and adults with disabilities, including persons who are nonspeaking or visually impaired or who have severe reading disabilities.

METHOD: The study will investigate the effect of the following factors on the single word intelligibility of speech synthesizers: the effect of the speech synthesizer used (Echo II+ or DECtalk); the number of learning sessions (1-6 sessions); and the frequency with which a vocabulary item is heard ("novel" or "repeated"). Novel vocabulary will be presented only once during the entire six sessions; repeated vocabulary will be presented once during each of the six sessions. The design will be repeated across two age groups: children (CA = 7-10) and adults (CA = 18-35). All subjects will be native speakers of English, have pure-tone air-conduction hearing loss of less than or equal to 25-db HL, have normal speech articulation, and have had no more than five minutes previous experience with the speech synthesizers used in the study. After a work is presented to the subjects using the speech synthesizer, subjects will be asked to report the work that they heard. Frequencies and proportions of words correctly identified by subjects will be calculated and a mixed analysis of variance will be used to analyze the results.

ANTICIPATED PRODUCTS: Results will be disseminated through presentation at a conference on technology applications in special education, and through publication in special education journals and newsletters targeted to individuals who make use of speech synthesis technology.
Multiple Output Sensory Trainer (MOST): A Multimedia Input/Output System Tailored to Meet the Needs of People with Disabilities

GRANT NUMBER: H180C00008
BEGINNING DATE: 8/1/90 ENDING DATE: 7/31/92

ABSTRACT
PURPOSE: This project will develop the Multiple Output Sensory Trainer (MOST), a computerized multimedia input and output system tailored to meet the needs of individuals with disabilities.

METHOD: The prototype proposed focuses on a system to optimally serve the needs of people with visual impairments. The prototype will be structured for this population, but its flexible architecture will enable other aids to be attached. Teachers will be able to quickly create lessons on the MOST system for use with other students with disabilities.

ANTICIPATED PRODUCTS: The project will result in a tool that will enable individuals with disabilities to use multimedia adaptive aids in an optimal configuration to meet their specific needs.

Analysis of Technology Assistance in Field-Based Settings

GRANT NUMBER: H180R10007
BEGINNING DATE: 11/1/91 ENDING DATE: 10/31/93

ABSTRACT
PURPOSE: The project has three purposes: to determine how assistive technologies are used in education and related settings with children with disabilities; to evaluate the benefits and barriers encountered by children, parents, and service providers; and to collect information related to a broad range of outcomes to evaluate the short- and long-term effects of assistive technologies.

METHOD: The project will work with six assistive technology centers in Indiana and Tennessee to orchestrate archival records analysis and field-based data collection efforts. Surveys and interview protocols will be developed and used to obtain information from students with disabilities (grades K-12), parents, teachers, administrators, related service personnel, engineers, and rehabilitation personnel. Computer-based direct observation systems will also be developed and used. Information will be collected on outcomes including academic achievement, curriculum structure and content, technology integration strategies, teacher-pupil interactions, communication skills, and attitudes.

ANTICIPATED PRODUCTS: Proposed products include the survey and interview protocols, the direct observation system, case studies, and three resource guides.
Designing and Development of Prototype Computer-Based Dynamic Assessment Software Model for Assessing Level and Learning Curriculum Areas

GRANT NUMBER: H180B00015
BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: This project will develop an intelligent computer-based prototype dynamic assessment software program. The prototype will assess multidigit multiplication procedural knowledge of junior high school level children with mild disabilities.

METHOD: The project will assess and forecast teachability among adolescents with mild disabilities and will make assessment more proximal to classroom and curriculum.

ANTICIPATED PRODUCTS: The program produces individual student profiles for each category of multidigit problems and procedures and uses graphics programming technology for split screens and moving displays. The prototype will have direct impact on moving the field through modeling the development of intelligent validated software for assessment of school-related curriculum areas among students with mild disabilities.

Development of a Series of Computer Programs to Teach Memorization of Factual Information Through the Time Delay Prompt Fading Procedure

GRANT NUMBER: H180P00049
BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/92

ABSTRACT

PURPOSE: This project will develop and field-test a series of computer assisted instruction (CAI) programs which implement the constant time delay prompt fading instructional procedure to teach the memorization of factual information to students with learning disabilities.

METHOD: A program for classroom application will be designed and developed based upon 6 years of prior research and development activities. The CAI programs will deliver interactive instruction: they will make decisions about the amount of instruction to be delivered based upon the type and accuracy of student responses. The programs will operate on Apple II, IBM, and Macintosh microcomputers.

ANTICIPATED PRODUCTS: The resulting product will be four computer programs, the Waiting to Learn Series, that teachers will be able to use to develop individualized instructional programs for their special education students. In addition, offline support materials and activities to promote maintenance and generalization of trained content will be developed for teacher and student use.
Educational Implications of Using Assistive Technology: A Qualitative Investigation

GRANT NUMBER: H180R10009
BEGINNING DATE: 10/1/91 ENDING DATE: 9/30/93

ABSTRACT
PURPOSE: This project will investigate the impact of assistive technology used by children with disabilities in educational settings and will disseminate useful information to practitioners and families.

METHOD: Participant observation and unstructured interviewing techniques will be used to collect data on the experiences of students who use assistive technology. Ten students, ages 3 to 18, will be observed primarily in school settings but also at home and in the community over a period of 15 months. They, their teachers, parents, peers, and others will be interviewed to obtain their views on the impact, both positive and negative, of the assistive equipment in their daily lives. Quantitative measures of student cognitive, physical, and social development will also be obtained. The data will be analyzed to produce descriptions of typical experiences and outcomes related to the use of assistive technology and to identify factors that contribute to the effective use of technology in schools.

ANTICIPATED PRODUCTS: Papers and presentations will be prepared for professional and parent audiences, including dissemination to the 48 University Affiliated Programs. Two videotapes, one for parents and one for teachers and teacher trainees, will be produced.

Identifying Emerging Issues and Trends in Technology for Special Education

GRANT NUMBER: HS90008001
BEGINNING DATE: 10/1/90 ENDING DATE: 9/30/93

ABSTRACT
PURPOSE: This project will synthesize information on new trends and issues and then arrange, encourage, and facilitate communications among key experts in special education and technology.

METHOD: A network of participants will be developed and electronically linked. The participants will include experts in special education, technology, and two consortia of educators in special and general education. Evaluative protocols and the database of the electronic system will provide increasing amounts of information feedback to all participants. To facilitate ongoing evaluation, a series of network events, actually minidemonstrations, will be conducted, culminating in an interactive satellite program at the annual technology meeting at INFOMART in Dallas, Texas.

ANTICIPATED PRODUCTS: The outcomes will be in the categories of information and communication. Information outcomes deal with the quality and quantity of information matches, that is, successful exchanges between technology and education. It is expected that participants will be empowered to contribute the best information at their disposal and then to use it. A well-operating communications network will provide the best information and a method for evaluating the outcomes in a timely manner.
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