

## DOCUMENT RESUME

ED 462 773

EC 308 835

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 TITLE Technology and Media Services. Discretionary Projects Supported by the Office of Special Education Programs under the Individuals with Disabilities Education Act, Fiscal Year 2001.

INSTITUTION ERIC Clearinghouse on Disabilities and Gifted Education, Arlington, VA. ERIC/OSEP Special Project.; Council for Exceptional Children, Arlington, VA.

SPONS AGENCY Special Education Programs (ED/OSERS), Washington, DC.

ISBN ISBN-0-86586-393-8

PUB DATE 2001-00-00

NOTE 99p.; For the Fiscal Year 2000 edition, see ED 450 510.

CONTRACT ED-99-CO-0026

AVAILABLE FROM ERIC Clearinghouse on Disabilities and Gifted Education. ERIC/OSEP Special Project, 1110 North Glebe Rd., Arlington, VA 22201-5704 (Stock no. R5495). Tel: 800-328-0272 (Toll Free); Tel: 703-620-3660; Fax: 703-620-4334; e-mail: ericec@cec.sped.org; Web site: <http://ericec.org>.

PUB TYPE ERIC Publications (071) -- Reference Materials - Directories/Catalogs (132)

EDRS PRICE MF01/PC04 Plus Postage.

DESCRIPTORS Accessibility (for Disabled); Captions; Cultural Enrichment; \*Disabilities; Early Intervention; \*Educational Media; \*Educational Technology; Elementary Secondary Education; Federal Aid; Federal Legislation; Federal Programs; Grants; Instructional Materials; Postsecondary Education; Preschool Education; Program Descriptions; Research and Development; \*Special Education; State Programs; Technological Advancement; Television; Theory Practice Relationship; Videotape Recordings

IDENTIFIERS Individuals with Disabilities Educ Act Amend 1997; \*Office of Special Education Programs

## ABSTRACT

This book is a directory that describes about 1,100 discretionary grants and contracts supported by the Research to Practice Division of the Office of Special Education Programs. The projects are grouped into sections representing the seven program areas of the Individuals with Disabilities Education Act (IDEA) Amendments (1997), Part D. This fourth volume of four total, describes projects concerned with technology and media services. These projects are intended to (1) support educational media activities designed to be of educational value to children with disabilities; (2) provide video descriptions, open captioning, or closed captioning of television programs, videos, or educational materials; (3) distribute captioned videos or educational materials; (4) provide free educational materials, including textbooks, in accessible media for students who are visually impaired and print-disabled in elementary, secondary, postsecondary, and graduate schools; and (5) provide cultural experiences through appropriate nonprofit organizations, such as the National Theater of the Deaf. The projects are grouped by funding competitions and include grant number, title, project director, beginning and ending dates, and contact information. An abstract usually describes the project's purpose, proposed

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method, and proposed products. Four indexes are provided: a project director index, an organization index, a state index, and a subject index. (CR)

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DISCRETIONARY PROJECTS SUPPORTED BY  
THE OFFICE OF SPECIAL EDUCATION PROGRAMS UNDER  
THE INDIVIDUALS WITH DISABILITIES EDUCATION ACT

FISCAL YEAR 2001

# TECHNOLOGY AND MEDIA SERVICES

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THE OFFICE OF SPECIAL EDUCATION PROGRAMS  
UNDER THE INDIVIDUALS WITH DISABILITIES EDUCATION ACT

FISCAL YEAR 2001

# TECHNOLOGY AND MEDIA SERVICES

PREPARED BY  
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THE ERIC/OSEP SPECIAL PROJECT  
ERIC CLEARINGHOUSE ON DISABILITIES AND GIFTED EDUCATION  
THE COUNCIL FOR EXCEPTIONAL CHILDREN



U.S. DEPARTMENT OF EDUCATION  
OFFICE OF SPECIAL EDUCATION PROGRAMS  
RESEARCH TO PRACTICE DIVISION

OSEP Discretionary Projects: **Technology and Media Services**  
ISBN 0-86586-393-8

Published 2001 by  
The Council for Exceptional Children  
1110 N. Glebe Road, Suite 300  
Arlington, VA 22201-5704

Stock No. R5495

This publication was developed by the ERIC/OSEP Special Project, which is operated by the ERIC Clearinghouse on Disabilities and Gifted Education, under Contract ED99CO0026 between the Council for Exceptional Children and the Office of Special Education Programs (OSEP), U.S. Department of Education. The ERIC Clearinghouse on Disabilities and Gifted Education is operated under a contract with the Office of Educational Research and Improvement (OERI), U.S. Department of Education. The contents of this publication do not necessarily reflect the views of OSEP, OERI, or any other agency of the U.S. government..

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# TECHNOLOGY AND MEDIA SERVICES

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## INTRODUCTION

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This directory, which is presented in four separately published sections, describes almost 1,100 discretionary grants and contracts supported by the Research to Practice Division of the Office of Special Education Programs, which administers the discretionary programs authorized by the 1997 Amendments to the Individuals with Disabilities Education Act (IDEA). Projects are grouped into the following four sections representing the seven program areas of IDEA, Part D:

**1: Research, Innovation, and Evaluation** (which covers two programs: *Research and Innovation* and *Studies and Evaluations*)

**2: Personnel Preparation**

**3: Technical Assistance, Dissemination, Parent Information, and State Improvement** (which covers three programs: *Technical Assistance and Dissemination*; *Parent Training and Information*; and *State Improvement Grants*)

**4: Technology and Media Services**

This section of the directory, "Technology and Media Services," presents projects that aim to: (1) support educational media activities that are designed to be of educational value to children with disabilities; (2) provide video description, open captioning, or closed captioning of television programs, videos, or educational materials; (3) distribute captioned and described videos or educational materials; (4) provide free educational materials, including textbooks, in accessible media for visually impaired and print-disabled students in elementary, secondary, postsecondary, and graduate schools; and (5) provide cultural experiences through appropriate nonprofit organizations, such as the National Theatre of the Deaf.

Within this section of the directory, the projects are grouped within the programs and competitions under which they were funded. Within each competition, the projects are arranged in order from the earliest to the most recent. Access to the project information is enhanced by several indexes, which include:

- Project Director Index
- Organization Index
- State Index
- Subject Index

# 84.327A

## Steppingstones of Technology Innovation for Students with Disabilities

Grant Number: H327A990078

### ECCTS III: The Early Childhood Comprehensive Technology System

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*Ending Date:* 9/30/02

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*Purpose:* The major goals of this project are to: 1) disseminate information related to this project; 2) replicate and validate the original Early Childhood Comprehensive Technology System (ECCTS) II research findings in a range of typical rural and urban education settings; and 3) study implementation and maintenance of the project in replication sites. ECCTS III will study the effectiveness ECCTS II is likely to have in sustained use, focusing on factors related to children, families, professional staff, access to the regular curriculum, and policy.

*Method:* The major objectives of ECCTS III include tasks related to dissemination, replication, product development, and project management. Each objective incorporates data collection, analysis, and evaluation of tasks. Both quantitative and qualitative measures will be used for evaluation. Project staff will provide replication sites with ongoing staff development training and support for teachers, professional staff, and Technology Teams (Tech Teams). The on-site Tech Teams will be trained to provide continuing support and staff development at each site and will themselves receive continuing support from ECCTS III staff. Two groups of educational programs (Special Education Cooperatives and Joint Agreements, and other related agencies) will participate in partnerships with ECCTS staff: Group 1 will have five sites and Group 2 will have four sites. Group 1 sites will receive more on-site training from the ECCTS III team than Group 2 sites, thereby providing a means to test conditions needed to establish and maintain ECCTS. Group 1 sites' activities will be modeled on the on-site tasks identified in ECCTS II during the collaborative research association between Kids). Group 2 sites' training will be modeled on an Outreach Replication model used successfully by Macomb Projects. Both Group 1 and 2 sites will receive continuous follow-up and support from the ECCTS III team because the research phase demonstrated the need for a long-term support period. Follow-up training and consultation will occur on-site as well as by e-mail, phone, videotape exchange, World Wide Web-site discussion, and return visits to the Macomb project site. During the third year, maintenance of the system will be supported and studied, with a maximum of two new Group 2 sites added.

*Products:* Dissemination activities will include traditional methods and media including face-to-face presentations, written materials, television, videotape, and strategies made possible by Web site and Internet capabilities. Target audiences will be identified so that efforts can be focused specifically at school boards, administrators, State Departments of Education, teachers, support staff, families, consumers, legislators, and others. A Web site

home page will be developed and maintained. Product development will include a detailed blueprint for further dissemination and implementation of the system as well as videotapes and staff development modules targeted at the groups cited above.

*Grant Number:* H327A000005

### **The KidTools Support System**

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*Purpose:* This project will develop and test performance support software for children to enhance their school survival skills through the use of computer tools. The software will include a library of tools provided as easy-to-use templates for children, ages 7-13, to personalize and use in school and at home by identifying behaviors and skills, developing implementation strategies, preparing metacognitive cues, and printing self-monitoring cards.

*Method:* The KidTools Support System developed by the project will include: two software tool programs for children (elementary and middle school levels); a hypermedia database of information on the tool strategies and resources for educators and parents; an orientation module with introductory material and video demonstrations; and a website containing interactive versions of the information database, links to resources, software, and discussion lists for users. An iterative process of software development, testing, and refinement will be used with involvement of various groups throughout the project.

*Products:* The software will include tools for self management, time management, study skills, and organizational skills. Following development, the project will disseminate the materials and test results while undertaking impact research.

*Grant Number:* H327A000014

### **Project STATUS - Phase 2**

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*Purpose:* Project STATUS (Student Technology Assessment Through Unique Strategies) Phase 2 will subject the findings of Phase 1 to rigorous field-based research and evaluation to validate the effectiveness and process for use of videoconference technologies to provide rural areas with access to assistive technology (AT) assessment and services.

*Method:* Videoconference technology is a viable and effective medium for a variety of purposes, including providing local school personnel in remote or dispersed locations with access to assistive technology assessment, training, and technical assistance. Phase 1 of Project STATUS addressed the critical need for access to assistive technology assessment and services through the use of videoconference strategies. Using this technology-based approach, children in even the most rural parts of the state have been given access to qualified AT professionals. During Phase 1, Project STATUS organized and conceptualized how assistive technology assessment and services could be provided utilizing videoconference technology. Phase 2 will refine and validate the findings. Phase 2 will investigate seven aspects of using videoconferencing for assistive technology assessments and services: 1) validation of the quality of AT assessment reports; 2) delineation of specific procedures and protocols for the use of videoconference technologies to provide direct services; 3) role of videoconference technologies in providing comprehensive AT services; 4) collection and analyses of student impact data; 5) determination of the effectiveness of the use of videoconference technologies for follow-along services; 6) analysis of the cost effectiveness of the provision of AT services utilizing videoconference technologies; and 7) identification and testing of the utility of new or improved forms of videoconference technology for conducting AT assessments.

*Products:* This project will develop the potential of increased access to AT services for innumerable children. The same technology can then be applied to an extensive number of other specialized services, such as occupational and physical therapy, speech therapy, mental health services, or even nursing services. Many specialized services that are currently tied to staff or separate settings could then be brought to children in their less restrictive home school environment.

*Grant Number:* H327A000020

### **Learning to Drive a Wheelchair over the Internet: A Phase II Steppingstones Project**

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*Purpose:* This project will investigate the effectiveness of using virtual reality to help children learn to drive a motorized wheelchair, thus gaining functional skills which transfer or generalize to the natural environment.

*Method:* The project will update the successful network-based approach for teaching orthopedically impaired children to drive motorized wheelchairs safely in the natural environment. Upgraded software using newer technology will provide better and more realistic graphics, will eliminate the need for a head-mounted display, and will allow two or more participants to enter the same virtual world to interact both visually and by voice while they move through that environment. Rigorous field-based research and evaluation will determine the intervention's effectiveness in educational settings.

*Products:* The project will develop a tutorial and training program for use at other locations. A CD-ROM version of the training program will be developed and disseminated to enable non-network users to train by themselves. Dissemination efforts will be made to work toward implementation of the procedures in interested school districts.

*Grant Number:* H327A000023

### **Development and Refinement of Web-Based Tools**

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*Purpose:* This project will develop and evaluate a comprehensive set of web-based tools for helping special education teachers select continuous progress measures for their students; manage the data that come from implementation of those measures; and collaborate with parents, peers, and consultants on the analysis of existing intervention programs and the development of revised intervention features. This project will produce three integrated, web-based services for teachers of infants and toddlers, preschoolers, and elementary-age students with disabilities.

*Method:* The project will use three significant technologies to improve outcomes for infants, toddlers, preschoolers, and elementary students with disabilities: 1) proven continuous progress monitoring procedures developed by the investigators of the project; 2) established software programs for creating a web-based presence for teachers using these measures; and 3) collaborative computing, knowledge management, and universal user interface design to produce a resource that helps teachers do easily what they previously were unable to do.

*Products:* The web-based services developed by this project will give teachers access to: assessment formats, stimulus materials, and guidelines for using continuous-progress measures; secure, easy-to-use resources for recording assessment data and for generating reports of individual children's development and achievement; and resources for sharing data and generating ideas for further assessment and intervention among teachers, parents, school-district personnel, and national consultants.

*Grant Number:* H327A000027

### **Project INTERSECT: Internet Texts with Electronic Resources, Supportive Enhancements, and Comprehension Tools (Phase 2)**

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*Purpose:* The inability of many students with disabilities to comprehend the text materials assigned by teachers has a negative impact on their literacy skills, their abilities to succeed academically in general education courses, and their chances of performing successfully on tests reflecting local, state, and national curriculum standards. The goals of Project INTERSECT (Internet Texts with Electronic Resources, Supportive Enhancements, and Comprehension Tools) are to improve the literacy of secondary students with reading and/or learning disabilities,

increase their success in the general education curriculum, and enhance their participation in educational reform through the creation and distribution of World Wide Web-based digital texts specifically designed to meet their comprehension and information acquisition needs.

*Method:* To accomplish these goals, Project INTERSECT (Phase 2) has adopted three objectives: 1) to measure and describe the impact of World Wide Web-based, "supported-text" materials on the literacy skills and academic achievement of secondary-level at-risk readers; 2) to increase the understanding of which students, teachers, and learning environments are most likely to benefit from use of World Wide Web-based, "supported-text" materials; and 3) to improve the design and construction of future World Wide Web-based "supported-text" materials by using evaluation data to inform the principles and criteria recommended to the field.

*Products:* Information gathering during Phase 2 will be used to improve texts in the INTERSECT library, and will provide guidance to the field on effective design principles for online digital texts meeting the needs of students with reading/learning disabilities. Phase 2 is also designed to identify the characteristics of teachers, students, and learning environments where use of online reading materials, supported with embedded resources, are effective for promoting school success.

*Grant Number:* H327A000034

### **BASICS: Baby Awareness and Support through Interactive Computer Systems**

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*Purpose:* This project responds to the needs of multi-risk families who have hospitalized infants with established or significant risk conditions due to biological insult or syndromes that result in developmental delay. The project will provide information via an interactive computer system (ICS) that allows for multimodal access with the goal of supporting the safe transition of the infant into community-based services with supported referral and printed materials that can be given to the family or early childhood professional.

*Method:* The project will develop five ICS packages using formative evaluation, including review, focus groups, and service providers. All packages will be activated using touchscreen technology and will have voice-over in English and Spanish. Captioned text will accommodate hearing-impaired individuals and touch areas will accommodate persons with motor impairments.

*Products:* The project will develop five ICS packages: 1) a package that contains a sequence of pictures that follows the development of the premature infant, provides information on ways of handling infants that support development, and directs families to resources in the hospital and the state, as well as to national organizations; 2) a community service package that will introduce families to the Kentucky Early Intervention System; 3) a package that introduces families to the health-care professionals taking care of the baby; 4) a package for siblings that teaches about the new baby in their family; and 5) a package that provides a walk through a virtual garden for families to take a break from the intensity of the hospital unit.

*Grant Number:* H327A000035

**Monitoring Authentic Problem Solving: MAPS to Enhance  
Outcomes for Students with Disabilities: Phase 2**

---

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*Purpose:* Based on a multimedia assessment system, MAPS (Monitoring Authentic Problem Solving) helps students with disabilities overcome barriers relating to strategies for applying skills to solving mathematical problems using real-life situations, strategies which are often used as a basis for student assessment. Students with disabilities typically have not developed good strategies for applying such skills yet must participate in state accountability programs, most of which use text-based presentation and response formats.

*Method:* The MAPS system assists students by relying on multimedia presentations of mathematical problem-solving situations and response formats, which avoid text and which more accurately estimate problem-solving capacity for students with disabilities. MAPS automatically scores and interprets problem-solving performances and provides ongoing student feedback as well as producing teaching recommendations matched to individual needs. To ensure that MAPS promotes its intended outcomes, rigorous field-based experimental studies will be conducted to identify which components account for the effectiveness of the outcomes.

*Products:* The project will produce a manual that teachers can use to implement MAPS, a corresponding video to help teachers understand the system and to advertise the availability of the system and its benefits, and a brochure that also advertises the availability of the system. The project will work with an educational publisher to market the system and make presentations about MAPS to ensure widespread dissemination.

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*Grant Number:* H327A000036

**Disseminating and Replicating an Effective Emerging  
Literacy Technology Curriculum: ELiTeC**

---

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*Purpose:* This project, ELiTeC (Emerging Literacy Technology Curriculum), will disseminate information related to the development of the curriculum, replicate and validate the project's research findings in a range of typical rural and urban educational settings, and study implementation and maintenance at replication sites. The project is based on prior effective early childhood models for technology curricular integration.

*Method:* Three groups of multiple, complex sites, both rural and urban, will be used in the model development. The first site will receive more on-site training and follow up from the ELiTeC team than the second group, providing a means to test the conditions needed to establish and maintain the curriculum. Sites in the second group will be modeled on an outreach model used successfully for 21 years. The third group's sites will be studied to determine teacher modifications and the conditions necessary for maintenance. Project staff will provide replication sites with ongoing staff development training and support for teachers, professional staff, and families. Follow-up training and consultations will occur on-site, by e-mail, phone, videotape exchange, and on the project's web site.

*Products:* Dissemination will be done via face-to-face presentations, publications, television, videotape, and web site. Targeted audiences will include school boards, administrators, state departments of education, teachers, support staff, families, consumers, and legislators. A detailed blueprint for further dissemination and implementation of the model will be developed, in addition to videotapes and development modules.

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*Grant Number:* H327A000038

**ClassWide Peer Tutoring-Learning Management System (CWPT-LMS) Technology  
Supporting Literacy, Accountability and Access to General Education  
Curriculum—Phase 3—Implementation and Validation Research Project**

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*Ending Date:* 7/31/03

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*Purpose:* Phase Three of this project will investigate the implementation of the ClassWide Peer Tutoring-Learning Management System (CWPT-LMS) in multiple, complex settings and evaluate contexts within which it may be effectively used and sustained in local elementary schools. Based on a multi-level, ecological-interaction framework for investigating contextual factors, both a national urban and a regional rural investigation will be conducted.

*Method:* A total of 22 elementary schools (14 urban, 8 rural) will participate (22 principals, 280 teachers, and 8,500 students — 980 students with disabilities in all). A delayed, control-group design with case studies will control rival hypotheses and illuminate individual cases. This design is acceptable to teachers because all eventually use the CWPT-LMS, as the control group becomes an experimental group one year later. Schools will be randomly assigned to treatment. Investigated are use in geographically, ethnically diverse urban and rural schools, diverse hardware platforms, and diverse general education curricula. Classroom teachers, parents of children with disabilities, and persons with disabilities will participate in the planning, design, and evaluation.

*Products:* The primary outcome will be a "blueprint" to be used in dissemination and utilization of the CWPT-LMS approach. The completed dissemination "blueprint" will consist of Core Components; Support Components; and Replication Components. Another outcome will be new information on the contextual factors that either promote or hinder utilization. Impact data will be collected yearly to determine student outcomes, quality of implementation, level of teacher use and participation, consumer satisfaction, and the adaptations made to the model in rural, suburban, and urban elementary schools. Of primary importance will be large-scale

demonstration of the successful linkage of technology components to curriculum and progress monitoring in ways that encourage effectiveness, usability, and accessibility.

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*Grant Number:* H327A000040

### **Implementing Curriculum-Based Standards for Students with Disabilities via Online Instruction**

---

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*Beginning Date:* 8/01/00  
*Ending Date:* 7/31/02

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*Purpose:* This project will use web-based instructional technologies to deliver exemplary modules for instructing students with disabilities on national curriculum standards. The project will adapt an online instructional model developed by the Online Academy at the University of Kansas to develop the modules.

*Method:* The project will engage national experts in determining which national curriculum standards or frameworks potentially have the greatest impact on the education of students with disabilities. Those standards will be translated into online instructional modules and made available nationally. Further, involvement of state education agencies and institutions of higher education will be sought to engage practicing professionals and preservice programs in implementing the online modules, educating not only the students but also those who teach them.

*Products:* The module design will include: 1) a template model with student activities; 2) an electronic instructional management system; and 3) an electronic portfolio for use by teaching professionals in building a record of professional growth and accountability.

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*Grant Number:* H327A000041

### **Kids Learning in Computer Klubhouses (KLICK!)**

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*Purpose:* The project's primary goal will be the development, description, modification, and evaluation of the feasibility of a successful after-school clubhouse known as KLICK! (Kids Learning In Computer Klubhouses). The clubhouse is designed to offer engaging, authentic, and technology-rich activities to students with disabilities in urban, suburban, and rural settings.

*Method:* In the KLICK! clubhouses, students will engage in project-based learning activities that will promote their literacy, communication, collaboration, and academic skills, and they will design projects that use various

technology applications that are useful to the school and the broader community. The KLICK! methodology will be developed through a series of design experiments to meet the needs of students with disabilities and to help them become more active participants in their education and community.

*Products:* Descriptions of the project, position papers, and research reports will be written by the co-principal investigators, and a web site containing project artifacts will be maintained at the clubhouse. The clubhouse will be linked to the College of Education homepage and a strong attempt will be made to publish the project artifacts to reach a wider audience within the field of education. The investigators will pursue presentation of their findings at national and state conferences as well.

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*Grant Number:* H327A000044

**The FORUM Projects: A Partnership of Gallaudet University and Local School Programs to Use Emerging Technologies to Bridge Barriers**

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*Purpose:* This project will train teachers of the deaf to integrate technology in their thinking about teaching, rather than as an "add on" problem to be solved. It will also train teachers of the deaf and regular education teachers to use technology as a device to overcome the barriers between deaf or hard-of-hearing children and their classmates as well as the world around them.

*Method:* Teachers will be trained in the summer months at five locations around the United States to integrate technology into their teaching and to prepare preliminary projects which will eventually be posted on the project's web site. During the school year teachers will receive consulting support from the project team as they refine their ideas and develop more elaborate projects to support the education of deaf children in their public school programs.

*Products:* The project will create web libraries, electronic pen pals, and virtual discussion groups, and will integrate other forms of technology as resources for teachers of the deaf and deaf students who do not participate directly in the project. Through these interactive media, teachers will be able to create virtual and inclusive classrooms from multiple locations, and they will be able to share ideas and solutions to problems. Eventually, the project hopes, through these methods, to create a virtual deaf community online.

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Grant Number: H327A000045

### **The “E-description” Project: Extended, Enhanced, and Educational Descriptions**

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*Purpose:* This project will develop and evaluate a new audio description methodology—“E-description”—specifically designed to provide access to and improve the educational impact of curriculum materials.

*Method:* The CPB/WGBH National Center for Accessible Media (NCAM) will adapt broadcast description methodologies for use with classroom media to improve blind students’ access to and participation in curricula. Descriptive Video Service (DVS) was developed by WGBH and launched over the Public Broadcasting Service (PBS) in 1990 to make television broadcasts and movies on video accessible to people who are blind and visually impaired. The service allows viewers to hear carefully crafted, concise descriptions of key visual elements (actions, settings, facial expressions, graphics) along with a program’s or movie’s dialogue. The development of the methodology for “E-description” will build on current research on cognition in blind children. Working with a team of advisors, NCAM will explore the potential of description to help children understand curriculum materials and maximize learning.

*Products:* Project results will serve all blind children but will most notably address challenges faced by mainstreamed blind students and general education teachers.

Grant Number: H327A000056

### **Interactive Technology for Generalizing Literacy, Mobility and Purchasing Skills to Community Settings**

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*Purpose:* The primary objective of Project SHOP is to create an engaging, interactive video-based instructional CD-ROM that will later be used to teach functional community skills to students with moderate to severe disabilities.

*Method:* Activities for the first year of the project will focus on video design and production. Second year activities will focus on developing and evaluating the CD-ROM. Up to ten individuals with disabilities will work as project interns, and individuals with disabilities will be hired as actors for the video sequences. The CD-ROM will consist of ten-minute interactive instructional episodes, one each in the skill areas of 1) employment; 2) functional literacy; 3) mobility; and 4) purchasing. Social skills (e.g., appropriate interactions with shoppers and employees) and safety skills (e.g., appropriate responding to dangerous areas of the store) will be embedded in

all episodes. Episodes will show engaging stories of individuals' with disabilities experiences in a community supermarket. The stories will include a series of decision points and will include a preliminary assessment of generalization of skills to a community grocery store.

*Products:* The project participants who will be involved in the formative evaluation of the CD-ROM include parents, students with disabilities, and their teachers. Three expert consultants will also participate in the formative evaluation activities via a World Wide Web site developed for this project. This World Wide Web site will be used to disseminate ongoing information about the project.

*Grant Number:* H327A000059

### **Development of Speech Recognition and Computer Communications as a Support for Deaf and Hard-of-Hearing Students**

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*Purpose:* The overall goal of the project is to develop procedures to adapt new speech recognition technology to provide real-time speech-to-text transcription to support deaf and hard of hearing high school and middle school students in mainstream classrooms.

*Method:* The project has four major activities: 1) perform development work to provide a system that enables an intermediary captionist, in following classroom discourse, to produce text at the rate of approximately 100 words per minute; 2) develop a system for computer communications, which includes software for displaying text, a local area network, and three different display devices, that is specifically designed for speech-to-text support services; and 3) develop materials and procedures to train support personnel to use speech recognition and the computer communications system.

*Products:* The project will result in a speech-to-text transcription program, and will provide knowledge regarding the needs of students and service providers and regarding the readiness of the system for the classroom by conducting focus groups and running pilot trials in classrooms.

*Grant Number:* H327A000060

### **Accessible Graphing Scientific Interactive Calculator**

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*Purpose:* Many high schools use a graphing scientific calculator to assist students in math and science courses. These calculators, with a built-in screen, display graphs and perform scientific functions. The calculators are a valuable tool for high school teachers and students and are used widely in higher math (Algebra I and beyond) and science courses. Unfortunately, the graphing scientific calculators are not accessible to visually impaired students. This project will design, develop, test, and evaluate a system to provide better access to graphs and scientific expressions for visually impaired students.

*Method:* The Accessible Graphing Scientific Interactive Calculator project will use the Immersion Corporation haptic (forced feedback) FEELit Mouse as the graph peripheral. It will also use stereo sound to represent the graph(s) and synthetic speech to provide feedback to the visually impaired student. Visually impaired students and their teachers and parents will be involved throughout the project.

*Products:* In addition to the project's development of a system to provide better access to graphs and scientific expressions for visually impaired students, the project will increase the knowledge base in interactive graph analysis and interactive scientific calculation research for visually impaired people.

*Grant Number:* H327A000063

### **Literacy Access On-Line**

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*Purpose:* The project will research the effectiveness of the "Literacy Explorer," an Internet-based literacy tool for dyads of facilitators and students with disabilities, grades four to eight. The objectives of the project are the following: 1) continue accessibility/usability field testing of prototype with regional literacy facilitators; 2) refine prototype and continue formative evaluation, incorporating field-test findings; 3) conduct efficacy and feasibility research during field testing with regional and national parent alliance groups and reading experts; and 4) refine the prototype and make summative evaluation statements based on activities in Objectives 1, 2, and 3.

*Method:* Based on Phase I development efforts, George Mason University and the Parent Educational Advocacy Training Center are in the final stages of developing the on-line literacy prototype reading tool called "Literacy Explorer." Found in the context of a World Wide Web-based learning environment known as Literacy Access OnLine, this prototype was developed to address the unique literacy needs of both struggling readers and their literacy facilitators. "Literacy Explorer," an Electronic Performance Support System, demonstrates a simultaneous learning environment for both the literacy facilitator and the student. Incorporating findings from reading experts in the rapidly developing field of literacy instruction, "Literacy Explorer" simulates an expert system for non-expert facilitators and provides an array of literacy learning experiences for children struggling with reading and writing.

*Products:* The availability of an assistive technology like the "Literacy Explorer" on the World Wide Web will allow literacy instruction to be available for everyone. The project will disseminate results of its research and evaluation, make a beta version available to national audiences, and explore options for CD-ROM development.

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Grant Number: H327A000071

**Early Childhood Technology Integrated Instructional System (EC-TIIS)**

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*Purpose:* The Early Childhood Technology Integrated Instructional System (EC-TIIS), a Steppingstones of Technology Innovation Phase I—Development project, will improve technology services to young children with disabilities by offering access to effective family and professional development materials in a World Wide Web-based system of nationally available learning opportunities organized in an easy-to-use, accessible format.

*Method:* The project will develop and refine a technology-based approach and test its feasibility for: 1) improving results of education, and 2) improving access to and participation in the general curriculum for young children with disabilities. EC-TIIS will develop a unique teaching/learning World Wide Web site community that will combine training content from tested and effective early childhood technology-related projects into a series of workshops designed to provide needed knowledge and skills to adults responsible for educational programs for young children. This content will be organized into nine on-line workshops: 1) "Classroom Environment," 2) "Adaptations," 3) "Curriculum Integration," 4) "Technology Assessment," 5) "Software," 6) "Emergent Literacy," 7) "Expressive Arts," 8) "Science/Math/Social Studies," and 9) "Family Participation." These workshops contain salient topics related to young children with disabilities ages three to eight and appropriate technology applications across a wide range of topics related to the general curriculum (i.e. appropriate activities for young children). The target audience includes families, program staff, therapists, related services staff, educators, faculty, students, and the full range of audiences addressed in IDEA 97. The workshops can be used by individuals, in staff development activities, and in coursework at the undergraduate and graduate levels. The feasibility of the features, design, content, use, and effectiveness of the World Wide Web site will be addressed through advisory panel review and field testing at four universities.

*Products:* EC-TIIS products will include a World Wide Web site with a series of workshops designed to provide needed knowledge and skills to adults responsible for educational programs for young children. The World Wide Web site will ultimately provide an option for users to design their own customized workshops, which will then be added to the World Wide Web site offerings. The World Wide Web site will promote dynamic material in the form of timely updates as new information becomes available and will be continued as an instructional commitment when the project is completed.

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*Grant Number: H327A000074*  
**Realtime Online Captioning for Remote Classrooms:  
 Phase 2, Research in Effectiveness**

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*Purpose:* This project will conduct a series of case studies to establish the effectiveness of a system for providing real-time captioning via the Internet to rural and isolated schools. This remote, online captioning system (RROCS) will be studied to determine how well it works for students with a variety of learning challenges in a range of instructional settings. The project will also study how the captioning affects student comprehension.

*Method:* The model for RROCS is grounded in two propositions: access to and engagement with instructional content are necessary in order for learning to occur, and academic performance increases as students engage with instructional content. The previous model of the system was field-tested through implementation of the real-time captioning system in two non-classroom settings. This project will conduct a series of case studies, multiple baseline single subject studies, participant observations, and focus groups with study participants assessing RROCS's effectiveness. Four waves of experimental studies will be conducted.

*Products:* Information from the research will be used to better understand the context in which RROCS is used. The resulting information will be useful in refining the system and developing better curriculum support materials for classrooms where it is being used.

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*Grant Number: H327A010005*  
**The Cornerstones Project, Phase II**

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*Purpose:* This project of the National Center for Accessible Media (NCAM) is a Phase II continuation of a Steppingstones Project and builds on development and formative evaluation conducted in Phase I. It makes use of technology to improve literacy in children who are deaf or hard of hearing by delivering a digital curriculum as an enhancement to public television programs. The Cornerstones approach offers teachers materials customized for deaf students that immerse children in technology-infused, research-based, literacy instruction.

*Method:* Phase 2 of the Cornerstones project will employ a rigorous scientific paradigm, within the constraints of typical classrooms, to evaluate the effectiveness of the Cornerstones approach to improve literacy of children who are deaf or hard of hearing. Literacy objectives for students will focus on learning a large repertoire of

vocabulary words in print, learning about words conceptually and understanding multiple aspects of each word, and increasing background knowledge to facilitate comprehension of written materials. The project will evaluate the feasibility and value of the technology in the classroom and explore the value of the approach for teachers and parents in improving home-school literacy connections.

*Products:* Cornerstones materials — videos, interactive activities, and lesson guides for teachers — are designed to be delivered to the classroom or the home via any digital means: digital television, the Internet, or through a CD-ROM or DVD. NCAM will promote the Cornerstones Project as a model that demonstrates the educational potential of technology to build literacy skills and that serves the needs of parents, teachers, and administrators concerned with the literacy development of students who are deaf or hard of hearing. The project also provides a model for public television, demonstrating how educational materials can have a broader impact by adding features for special populations.

*Grant Number:* H327A010007

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**Field Testing the Learning Toolbox: An Instructional Resource Website for  
Secondary Students with Mild Disabilities, Teachers, and Parents**

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*Purpose:* This project will field test The Learning Toolbox, a Website designed to assist secondary students with learning disabilities and ADHD to become more effective learners using research-based strategies. The Learning Toolbox is designed for independent use by students, special and general education teachers, and parents.

*Method:* The project Website, The Learning Toolbox, will disseminate the positive results of a previously funded project on a curriculum for college students with mild disabilities. During the first year of the project, the Website will be field tested using the criterion of usability (i.e., whether the strategies on the Website are put into practice by students, teacher, and parents). The results of the field testing will be disseminated at the end of the second year.

*Products:* The project should lead to more effective use of technology for improving the participation of students with disabilities in meeting the rigorous academic demands of the general education curriculum, passing high-stakes tests, and successfully meeting the academic requirements of postsecondary education. The Website will be disseminated through the linkages established over the course of the project, and the findings will be posted as reports on the Website as well as disseminated through conventional means (articles and presentations).

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*Grant Number:* H327A010012

### **TELE-Web: Technology Enhanced Learning Environments on the Web**

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*Purpose:* This project will describe, modify, and evaluate research-based practices that have been incorporated into a technology application, Technology Enhanced Learning Environments on the Web (TELE-Web). TELE-Web is Internet-based software designed to accelerate and scaffold the literacy learning of students with disabilities in the core academic subjects (reading, writing, social studies, and science).

*Method:* TELE-Web offers multiple levels of support for teachers and students, including text-speech functions, drawing functions, a spelling program, writing and publishing programs, mapping functions to support reading and writing, software to promote the development of word recognition, phonemic awareness and comprehension, and book chat rooms. Participants will include 18 general education teachers and 18 resource room teachers as well as their 200 general education students and 100 students with learning/behavioral disorders, mental impairments, or developmental delays. Responses of students and teachers will be evaluated and the effectiveness of the program will be studied longitudinally to determine the program's efficacy in terms of accelerating literacy achievement.

*Products:* Descriptions of the project, position papers, and research reports will be written by the principal investigators and will be published for wide audiences within the education field. Project staff will state levels. Additionally, TELE-Web can be easily and widely disseminated on the Internet to teachers, students, researchers, and teacher educators. By maintaining a professional development network, the project will support professional development as it relates to literacy and technology, as well as furthering project dissemination.

*Grant Number:* H327A010015

### **Steppingstones Student Compass On-line: Navigating to Success**

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*Purpose:* This project will develop a hand-held electronic data tool that will support middle school students with mild disabilities as they progress in the general education classroom. The device, Student Compass On-Line (SCO), will assist students in collecting information related to their daily performance and prompt them to employ cognitive, self-regulation, task-attack, goal-setting, and problem-solving strategies to improve their academic, teamwork, and social skill performance during general education instructional activities.

*Method:* The electronic data tool will run on affordable mobile computers and will become more widely available as computer technology becomes more powerful and less expensive. The SCO device will allow students to monitor their own performance in areas such as homework, class preparation, attendance, discipline, teamwork competencies, and social skills. The first major component of SCO will include performance data, which will include data fields related to academic performance, such as state performance assessment scores, and non-academic performance areas, such as class preparedness and social skills. The Instructional Strategies Bank will be a repository for effective learning strategies, graphic organizers, performance rubrics, story prompts, and vocabulary practice methods. The third component will consist of cues or messages to guide students through specified instructional procedures, specific learning tasks, and study guides. It will include a calendar to remind students of regular activities. The fourth module will contain report templates such as daily goal attainment, recognition certificates, management forms, and parent letter templates. Students using the SCO will help in the process of identifying and disseminating learning strategies that have worked in their classrooms. By giving students responsibility and access to their own learning processes and strategies, SCO will encourage greater participation by consumers traditionally excluded from education theory and practice.

*Products:* Teachers whose students will be using SCO will be encouraged to share best practices with one another in electronic learning communities, and project results will be disseminated on educational intranet and Internet sites. Traditional methods of information sharing will not be overlooked: the project will offer numerous professional development activities across the state of Maryland and will present at national conferences and publish in education journals.

*Grant Number:* H327A010019

## **The Role of Speech Output Technology for Beginning Communicators**

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*Purpose:* This Phase 2 project will determine whether voice output communication aids (VOCAs) with either synthetic or digitized speech output are more efficient than devices without speech output, and whether synthetic speech is more efficient than digitized speech output in supporting requesting in beginning communicators under optimal conditions. In addition, the project will monitor the impact of various conditions on learners' vocalizations, which will provide urgently needed data on the impact of aided augmentative and alternative communication aids (AAC) systems on beginning communicators' natural speech development.

*Method:* The project will evaluate whether speech output (synthetic and digitized) is a causal factor in promoting requesting and vocalizations in beginning communicators. The project will conduct rigorous field-based research and evaluation by comparing the efficacy of the approach using low-tech devices (demonstrated to be efficacious in Phase 1) with VOCAs (high-tech devices that emerged as promising in Phase 1). Participants between 10 to 14 years of age will be recruited through Boston Public Schools and Alachua County Schools in Florida. Participants will have little to no functional speech (as determined by informal teacher interview), severe mental retardation, and pervasive support needs in all major adaptive skill areas (e.g., self-care, social skills, communication, home living, community use, self direction, health and safety). Six participants will be recruited for each of the studies.

*Products:* The project will determine which type of technology, in a defined range of “optimal” real world contexts, will result in more efficient requesting and vocalizations among beginning communicators.

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*Grant Number:* H327A010022

### **Instant Access to Refreshable Braille in the Inclusive Classroom**

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*Purpose:* While refreshable braille technology is available, a system for providing and integrating this technology into the general education classroom is not. This project will develop and document a system for integration of portable braille notetakers with refreshable braille in classrooms, involving a total of 15 students and 15 school teams in New York State.

*Method:* Advances in technology have introduced an innovative alternative to hardcopy braille, called “refreshable braille,” providing instant braille access to material stored electronically. Textbooks may be scanned into the computer and saved onto a single 3.5” floppy disk, or may be provided by the publisher in electronic format. Refreshable braille displays use moveable small pins that raise and lower as needed to form braille characters. After a line of text is read, the user can “refresh” the display by pressing a button, and read the next line. Refreshable braille displays are built into portable braille notetakers that can be used for both reading and writing. Project objectives include: 1) provide refreshable braille systems and training; 2) convert print learning materials to electronic format; 3) conduct a formative evaluation; and 4) disseminate project materials and findings.

*Products:* The outcome of this project will be a replicable system for implementing refreshable braille in the general education classroom, which will lead to improvements in education for students who use braille.

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*Grant Number:* H327A010033

### **InReach: Using Technology to Ensure Effective Transition from NICU to Part C Services**

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*Purpose:* This project will expand the collaborative work completed by Utah’s Part C (early intervention) lead agency, two tertiary neonatal intensive care units (NICUs), and the Early Intervention Research Institute. In this project, innovative technology will be developed to make the transition from NICU to Part C available to all NICU infants who qualify for Part C services.

*Method:* The project will use innovative technology to support the joint Individualized Family Service Plan (IFSP) process using a desktop conferencing system. A DVD video will be developed to inform parents and NICU staff about Part C services, and a Website will be established where families can see the infant in the NICU and receive updates.

*Products:* The project will develop and pilot the NICU transition/joint IFSP model, expand and demonstrate the usefulness of the transition process in additional NICUs and community Part C agencies, and disseminate the findings regionally and nationally. Evaluation will determine whether the model improves parents' ability to understand their infants' strengths and needs, increases the collaboration between NICU and the Part C system, and enables more Part C-eligible infants to make a smooth transition from the NICU into community Part C services.

*Grant Number:* H327A010039

### **Computer ACE Reading, Phase 2 (ACE = Accelerated Community Empowerment)**

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*Beginning Date:* 9/01/01  
*Ending Date:* 8/31/03

*OSEP Contact:* Dave Malouf  
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*Purpose:* "ACE (Accelerated Community Empowerment) for Reading" is a literacy improvement program developed for students with disabilities in communities with high levels of need. In a Phase 1 Steppingstones grant, the project developed computer software training protocols and promising replications in Philadelphia and Micronesia. The original program gave students daily individual reading practice with community tutors, emphasizing a "feedforward" philosophy that ensures high levels of success and boosts self-efficacy through a personal videotape, carefully edited to show "future" capability of reading performance. This combination of community resources and technology has been highly effective in teaching literacy-related skills. Computer ACE Phase 1 was a response to multiethnic schools where the needs are so great that currently effective programs must be supplemented with low-cost methods to increase the rates of engagement (practice) by students in literacy-related activities. The purpose of Computer ACE Phase 2 is to conduct a systematic research investigation of the Phase 1 multimedia-based package to improve literacy-related skills of elementary students with disabilities and with culturally and linguistically diverse backgrounds.

*Method:* The project will take place over two years. The first year will emphasize implementing the package with students in elementary schools in three diverse regions (Micronesia, Hawaii, and Kentucky); providing intensive training to teachers and community members; and collecting data. The project will test two hypotheses: 1) does Computer ACE improve reading and other literacy skills more than regular classroom instruction?; and 2) what significant programmatic adjustments will Computer ACE require in linguistically diverse settings? The dependent variables (outcome measures) will include fluency and engagement in passage reading, sight word recognition, and phonemic skills, plus changes in tutoring/supervision protocols and changes to the package specific to the location. Both qualitative and quantitative data will also be collected in such areas as: 1) comprehension, motivation, and self-perceived competency by students; 2) changes in teachers' (and community members') knowledge and practices related to literacy instruction through the use of technology; 3) the extent to which the package is incorporated as part of general classroom instruction of after-school programming; and 4) the impact on the family. The focus of Year Two will be to complete that data collection and analysis, to explore some formative studies to generate new hypotheses, and to establish the basis for Phase 3 (implementation research).

*Products:* The products from this project will include the Computer ACE 2 package of training materials. Findings will be distributed widely via the Internet, replication packages, multimedia presentations, journal articles, and so on.

*Grant Number:* H327A010044

### **Effectiveness of Assistive Technology in Promoting Playfulness in Young Children**

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*Beginning Date:* 8/01/01  
*Ending Date:* 7/31/03

*OSEP Contact:* Peggy Cvach  
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*Purpose:* This project uses the "Let's Play" service model (a caregiver-centered, assistive technology-supported, play-based service) to establish physical and human environments that promote play and playfulness in children with disabilities. The project will also determine the feasibility of using the model's approach in early intervention settings.

*Method:* Through field-testing of the assistive-technology, play-based service (AT/Play), the project will attempt to answer the following questions: is this approach effective in developing a supportive human and material environment that promotes play and playfulness in children with disabilities, and is it feasible to include the AT/Play approach with other early intervention services. To answer these questions, the project has designed a three-phase method using both qualitative and quantitative methodologies. It will identify strengths and weaknesses of the approach and analyze data in various ways to provide for a comprehensive analysis.

*Products:* The primary product will be a refinement and description of the AT/Play approach defined in the "Let's Play" service model. This and other project products documenting the model will be disseminated to parent and professional organizations that serve families with infants and toddlers with disabilities by means of publications and conference presentations. The "Let's Play" Website will contain educational materials updated and refined as results become available, and the site will add other components such as areas to share "best" uses of play materials and other AT devices. The information gleaned by this project will also be used to adapt and replicate the AT/Play approach for use in early intervention systems elsewhere.

*Grant Number:* H327A010048

### **A Technological Approach for Pregnancy Prevention among Youth with Disabilities (TAPP)**

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*Beginning Date:* 8/01/01  
*Ending Date:* 7/31/03

*OSEP Contact:* Dave Malouf  
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*Purpose:* This project will develop a new technological teaching strategy for teaching pregnancy prevention and responsible living to youth with mild mental disabilities. The primary target audience is secondary students with disabilities, and the secondary audience includes educators, service providers, and policy makers.

*Method:* The project will collect and analyze information regarding the incidence of pregnancy and parenting among youth with disabilities and develop an interactive CD-ROM related to pregnancy prevention. Use of curricular materials developed specifically for learning needs of youth with high-incidence disabilities will enhance their educational development and impact programs which address pregnancy prevention and responsible adult roles.

*Products:* The CD-ROM, after field testing and evaluation, will be disseminated to a number of groups that do not currently disseminate information regarding the needs and provision of specialized services on teaching pregnancy prevention to youth with disabilities. These groups include: school systems with programs for youth with disabilities, programs under the auspices of state departments of human resources and their local affiliates, hospitals, and other nonprofit organizations.

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*Grant Number:* H327A010051

**Project Homework Helper: Using Web-Based Courses, CD-ROMs,  
Video Conferencing with Deaf Students**

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*Beginning Date:* 9/01/01  
*Ending Date:* 8/31/03

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*Purpose:* This project will develop and refine a technology-based approach to increasing homework skills through Internet-based courses and videoconferencing, and test its feasibility with deaf and hard-of-hearing students, primarily from minority families.

*Method:* Project staff will develop Internet-based "homework helper" courses that will be available online, along with CD-ROM homework lessons. Staff will network 10 teachers with videoconferencing and train a total of 60 teachers to develop their own online lessons tailored to the specific needs of their students. Lessons developed by the project will be structured to meet the linguistic, idiomatic, and vocabulary needs of the population of students who are deaf or hard of hearing, thereby making the curriculum accessible.

*Products:* This project will directly impact about 360 deaf students and will affect hundreds more nationwide and worldwide. A total of 60 teachers will be trained and mentored to develop Web-based homework lessons for their deaf students. Dissemination plans include access to the Website with homework lessons designed by project teachers and courses, all of which will be widely available to teachers worldwide. Project teachers will give workshops and collect ethnographic data on the students doing homework. These data will be compiled into online "student homework ethnographies" and the results will be published in professional journals. A manual on how to develop homework lessons for deaf students will also be available on the World Wide Web for access by all teachers.

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# 84.327C

## Video Description Projects

*Grant Number:* H327C010001

### Narrative Television Network Broadcast, Satellite, and Cable

*Project Director:* Stovall, Jim  
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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will permit Narrative Television Network (NTN) to provide accessible television and movie programming to blind and visually impaired Americans.

*Method:* NTN will provide video description for Cable in the Classroom educational television programming by utilizing its relationships with Nickelodeon, Discovery Networks, CNN, Weather Channel, and Court TV, and through agreements with TBS, TNT, Lifetime Television for Women, and GoodLife TV. More than 700 hours of new, accessible programming will be aired via national broadcast and cable networks, and videos will be made available through Libraries for the Blind and schools for the blind across the U.S., as well as the Internet.

*Products:* Through this project, NTN will open the world of educational programming to children and adults, and will allow children who are blind or have low vision to engage in age-appropriate activities that include the watching of television.

*Grant Number:* H327C010004

### Video Description of Television and Film Programs by the Media Access Group at WGBH

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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* JoAnn McCann  
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*Purpose:* Descriptive Video Service (DVS), a service of the Media Access Group at WGBH, will make cable and commercial television programs and films accessible to the U.S.'s 13.5 million people who are blind or visually impaired.

*Method:* DVS will maintain a significant presence on the basic cable service, Turner Classic Movies (TCM). It will also expand its presence on cable by introducing new partners: Lifetime, a cable network for women;

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Nickelodeon, the top-rated children's cable network; and Turner Entertainment Network (TNT) in the first year. DVS also has a firm commitment from Fox broadcasting, one of the four commercial networks. DVS will work with Fox to bring the debut of video description to commercial television. A minimum of 313 hours of programming will be described.

*Products:* DVS will continue to reach out to blind and visually impaired viewers and those close to the blind community with materials in accessible formats as well as provisions for gathering feedback and evaluation on the program selection, educational value of the programming, methods used for description, etc. DVS will also continue an aggressive campaign in progress to educate the television and film industry about the availability of description and to promote video description to the general television audience.

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## 84.327D

# Dramatic and Theatrical Experiences for Individuals Who Are Deaf or Hard of Hearing

*Grant Number: H327D000006*

### **Establishing a Deaf National Conservatory of Theatrical Training**

*Project Director:* Waterstreet, Ed  
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*Beginning Date:* 3/01/00  
*Ending Date:* 2/28/05

*OSEP Contact:* Ernest Hairston  
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*Purpose:* This project will expand theatrical and cultural experiences for persons who are deaf and hard of hearing.

*Method:* The project will broaden the theatrical and general cultural experiences of deaf and hard of hearing persons in the United States. Working collaboratively with widely acclaimed deaf and hearing actors and artists, Deaf West Theatre Company (DWT) will provide training in drama and theatrical production to actors and artists who are deaf and hard of hearing, in order to cultivate their skills, develop self-esteem and cultural pride, and create a legacy of Deaf culture.

*Products:* The project will provide outreach activities including professional and technical assistance to regional and local programs through the establishment of a clearinghouse of information and as a provider of technical assistance to deaf theater companies throughout the nation. The project will also produce and promote a series of videotaped performances for distribution and national and regional broadcasting.

*Grant Number: H327D010001*

### **Dramatic and Theatrical Experiences for Individuals Who Are Deaf or Hard of Hearing**

*Project Director:* Goehring, Gerald  
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*Beginning Date:* 2/01/01  
*Ending Date:* 1/31/05

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*Purpose:* This project will focus on providing deaf and hard of hearing individuals with: 1) training in drama and theatrical production; 2) meaningful employment and professional development opportunities through

performance in touring productions, demonstrating the artistry and intellect of people who are deaf or hard of hearing to the majority hearing population; 3) outreach activities such as workshops, lectures, classes, and residencies that teach the skills of tolerance and respect necessary to bridge gaps between hearing and Deaf cultures; and 4) video production which preserves archival footage for historical purposes and opens pathways to new audiences through video sales.

*Method:* Specific National Theatre of the Deaf (NTD) activities will include, in addition to the theatrical productions, training programs designed specifically for deaf and hard of hearing artists, managers, administrators, teachers, and students, such as the Professional Training School and Professional Training School, Jr. During production tours, the actors will offer students, educators, and other interested individuals workshops, lectures, and other opportunities to experience theatre arts. NTD will operate a Professional Theatre Program each summer, which will train 30 artists in acting and theatre-related disciplines.

*Products:* In addition to the training and outreach programs mentioned previously, during each of the five years of the project period, the Theatre will produce at least three touring productions which will serve an audience of Deaf and hearing children and adults in venues as diverse as libraries, theatres, classrooms, school auditoriums and cafeterias, parks, and community centers. The productions will be presented approximately 140 times to an audience of about 55,000. NTD will videotape at least one production per year for later use on television or through duplicated cassettes. NTD will also develop a Web site.

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# 84.327E

## Captioning Children's Educational Materials or Accessible Educational Television

*Grant Number:* H327E010001

### Accessible Educational TV — Narrative Television Network

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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will continue the Narrative Television Network's (NTN) Accessible Educational TV project through which accessible television and movie programming are provided to blind and visually impaired Americans. Currently, NTN includes over 1,200 broadcast and cable affiliates reaching over 35 million homes in the United States, providing accessible media to blind and visually impaired individuals via broadcast, satellite, and cable television, video and audio tapes, live theater and museum exhibits, and via the Internet.

*Method:* Through this project, NTN will provide video description for 300 hours of newly accessible, widely available, noncommercial, educational, and instructional television programming approved for broadcast to more than 43 million students nationwide on Cable in the Classroom. In order to shrink the gap between captioned and described TV, NTN will narrate programming that, for the most part, has already been captioned, and NTN will cover any costs to caption programming that has not been previously captioned.

*Products:* This project is seen as a critical step in NTN's effort to provide educational parity in the classroom, and to allow children who are blind or have low vision to have access to the same educational programming as children with hearing impairments and to engage in age-appropriate activities that include the watching of television. Educational videos with narratives added during this project will be made available to library patrons, educational facilities, institutions for the aged, and organizations that serve children and adults with disabilities. Some of the programming will also be made available on demand and free of charge at NTN's Web site and will also be distributed to schools for the blind nationwide.

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*Grant Number: H327E010003*

**Accessible Educational TV: Animal Planet (Mother Nature, Zoo Venture)**

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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

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*Purpose:* Under this project, VITAC will caption and describe a variety of educational programming available to national TV audiences and to schools, reaching students who are deaf or hard-of-hearing as well as those who are blind.

*Method:* The project will assure the quality captioning and video description of approximately 192 hours of televised educational programming on the Animal Planet Network over the three year grant and will expand private-sector support for such programming by using federal funds as an inducement to increase funding support from program producers.

*Products:* After captioning the television programs, VITAC will disseminate information about these programs via its newsletter and press announcements in publications aimed at the deaf community and television industry. A new alliance with media networks will identify those media outlets and radio programs that reach blind and visually impaired viewers to disseminate information about its work.

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*Grant Number: H327E010005*

**Accessible Educational TV by the Media Access Group at WGBH**

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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* JoAnn McCann  
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*Purpose:* Through this project, WGBH will caption and describe nationally distributed instructional television through the Cable in the Classroom program, which serves 44 million students across the country. The project will also allow The Media Access Group at WGBH to continue to caption educational television programs for school use.

*Method:* WGBH will reach out to deaf, hard-of-hearing, blind, and visually impaired students as well as teachers and parents to gather feedback and evaluation on the program selection, educational value of the programming, and methods used for captioning, description, and outreach processes. This feedback will be used to improve services.

*Products:* In the first year of the project, 43 hours of educational programming will be audio described and 12 hours of programming will be captioned. Descriptions will be added to programs already being captioned by the Media Access Group.

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*Grant Number: H327E010006*  
**Accessible Educational TV #2**

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*Project Director:* Duckler, Max S.  
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*Beginning Date:* 10/01/01

*Ending Date:* 9/30/04

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*Purpose:* This project will provide accessible, educational, commercial-free programming suitable for classroom use, bringing nationally distributed offline captioning and video description to deaf and blind students, parents, and teachers throughout the country.

*Method:* Programs to be captioned and described by this project will be provided by the National Educational Telecommunications Association (NETA) and will cross all areas of study, from science to literature, and all grade levels from K-12, and will also include programming for adult learning and general audiences. Court TV will provide programs for captioning and description that are used in their public affairs and Cable in the Classroom initiatives. Other programs will address social issues and choices confronting young people in today's world. All programs slated for captioning and description will be licensed for classroom use.

*Products:* The project will achieve wide distribution of programs through NETA and Court TV. NETA programs, for instance, reach 98% of all U.S. households, and Court TV reaches 80 million homes and 85% of all classrooms. The project will caption and describe 100 half-hour programs of commercial-free, educational programming.

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*Grant Number: H327E010007*  
**Accessible Educational TV #1**

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*Ending Date:* 9/30/04

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*Purpose:* This project will bring nationally distributed, offline captioning and video description of accessible, educational, commercial-free programming suitable for classroom use to deaf and blind students, parents, and teachers throughout the country.

*Method:* Programs to be captioned and described by this project will be provided by the National Educational Telecommunications Association (NETA) and will cross all areas of study, from science to literature, and all grade levels from K-12, and will also include programming for adult learning and general audiences. All programs slated for captioning and description will be licensed for classroom use. Most programs are curriculum-based and supported by teacher guides and materials.

*Products:* This project will achieve the widest possible distribution for captioned and described NETA programs. NETA programs are distributed to over 98 percent of all television households in all states. During the three years of this project, CaptionMax will caption and describe 70 half-hours of NETA programming.

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*Grant Number:* H327E010009  
**Accessible Educational TV**

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*Purpose:* Through this project, the National Captioning Institute (NCI), working with the Narrative Television Network (NTN), will collaborate to provide captioning and video description of half-hour educational television programs.

*Method:* One of the programs to be captioned and described in the project, "Standard Deviants," is an award-winning half-hour educational show, available on broadcast television and cable, that focuses on topics ranging from Shakespeare to foreign languages to computer skills. The other show to be captioned and described is "Clifford the Big Red Dog," also broadcast and available on cable, which is targeted to children ages 3 to 7 and is designed to convey lessons about living and working with others in the community. These two programs will reach a wide and diverse audience of young children and teens, particularly older teens.

*Products:* The project will ensure that a wide range of educational programs is captioned and described for children of all ages. In total, this project will offer 38.5 hours of educational programming to over 43 million youth. The commercial-free programs captioned and described by this project will be licensed for classroom use and can be used without the need for additional caption reformatting or additional description.

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# 84.327F

## Closed Captioned Spanish Television Programs

*Grant Number: H327F990005*

### Closed Captioned Spanish Television Programs — CNN en Espanol

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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

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*Purpose:* The National Captioning Institute (NCI), in collaboration with “CNN en Espanol,” will complete closed captioning of more than 460 hours of Spanish-language television programs over a three-year period, in order to meet the diverse cultural and educational interests of Latin American deaf and hard-of-hearing consumers. The two programs on “CNN en Espanol” selected for captioning (“El Mundo Informa” and “Enfoque”) reflect programs that address the diverse interests of the Hispanic viewing audience for access to news and public information.

*Method:* The project will work directly with “CNN en Espanol” to caption these two popular news and public information programs. The project will establish and support a consumer advisory group that will meet annually to provide feedback regarding the quality of captioning, and will deliver cost-effective captioning services that meet the highest quality captioning standards in the industry.

*Products:* “El Mundo Informa” is a half-hour weekly Spanish-language version of “CNN World Report,” the world’s largest television news exchange, providing an unedited forum for reports from broadcasters around the globe. “El Mundo Informa” is seen on “CNN en Espanol” several times throughout the week, in different time periods each day. “Enfoque” is a half-hour weekday program that explores a different topic Monday through Friday. Programming provides viewers with in-depth stories on topics of interest, with a timely wrap-up each weekend. The topics for each weekday include: 1) high fashion and style; 2) developments in science and technology, with an emphasis on achievements and contributions by Latin American scientists, inventors, and researchers; 3) the conflicts between people and nature; 4) the latest developments in medicine; and 5) exotic destinations around the world.

*Grant Number: H327F000001*

### Provide Spanish Language Real-Time Captioning

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*Ending Date:* 9/30/02

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*Purpose:* CaptionMax, Inc. will provide 400 hours of Spanish real-time captioning. This project will enable the Latino deaf and hard-of-hearing community to participate in and enjoy programming providing educational, social, and cultural benefits. This project will also benefit persons with reading deficiencies and those persons learning Spanish as a second language.

*Method:* The project will utilize existing equipment, facilities, and personnel to ensure cost-effectiveness. Examples of topics that will be addressed are: speed of captions, error rates, positioning of captions, and density of content.

*Products:* Arrangements have been made with Telemundo to close caption the following network programs: "Occurio Asi," "CBS Telenoticias National News," and "Noticiero Telemundo." CaptionMax will help create and maintain a bilingual Website serving as an immediate conduit between CaptionMax and the community.

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# 84.327G

## Research Institute on the Use of Assistive Technology in Education

*Grant Number:* H327G000004

### University of Kentucky Assistive Technology Research Institute

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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/04

*OSEP Contact:* Jane Hauser  
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*Purpose:* This project has two major goals: 1) to examine factors related to the planning, development, implementation, and evaluation of assistive technology (AT) services in schools, and 2) to disseminate the findings of the research in ways that will assist school personnel to develop or improve AT policies and practices for students with disabilities.

*Method:* To meet these two goals, research questions will be answered via a series of studies that will be performed on the following topics: 1) the status of AT use in K-12 schools and the role that AT provides in the education of students with disabilities; 2) the policies, procedures, and resources that school districts use to develop and deliver AT services to their students; 3) the ways that AT decisions are made by teams of people who develop Individualized Education Programs (IEPs) for students enrolled in special education programs; 4) the training and technical support that is needed by individuals who are involved with planning and implementing the use of AT devices and services with students; 5) the integration of AT into learning environments and the ways that AT devices and services are used to facilitate instruction and access to the curriculum; 6) the effect that the use of AT devices and services have on the academic, social, and functional performance of students who use them; and 7) the extent to which institutions of higher education are developing AT knowledge and skills in those who are preparing for professional positions in schools. A variety of research designs will be used to obtain data to answer the research questions in each of the above areas. Studies will include national surveys of AT practices of state departments of education, school districts, special education teachers, and institutions of higher education. Case studies will be conducted at benchmark school districts to identify AT promising practices. AT quality indicators will be validated and used as criteria for evaluating AT practices. Interviews and observational studies will be used to examine how AT is being considered when developing IEPs and the ways that professionals and parents interact during that planning process. Interactive research will be conducted via the World Wide Web to identify critical incidents concerning effective and ineffective applications of AT devices and services and to obtain feedback about AT policy options that are identified as a result of policy analysis research that will be conducted. The AT knowledge and skills needed by special education teachers and related services personnel also will be identified and validated.

*Products:* In addition to conventional research articles that will be submitted to professional journals, a number of products that have practical implications for implementing AT practices will be generated as a result of the

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research, such as policy guidelines, forms and instruments to support various AT activities, reports of best practices, AT self-assessment instruments for professionals, and templates for designing and implementing components of AT programs, among others. An accessible, user-friendly World Wide Web site also will be used to report ongoing AT research results, recommendations, and resources. Special interpretive reports that will translate the research results into implications for practice also will be prepared for dissemination. A national symposium and a national interactive teleconference will be conducted to further disseminate results of the research during the dissemination phase of the project.

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# 84.327H

## Research on Educational Captioning

*Grant Number:* H327H000002

### **The Relation Between Eye Movement and Reading Captions and Print by School-Age Deaf Children**

*Project Director:* Jensema, Carl  
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*Beginning Date:* 9/01/00  
*Ending Date:* 8/31/03

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*Purpose:* This research explores how the eye movement patterns of deaf children relate to their skill in reading both captions and printed text, and whether caption reading habits (viewing frequency, type of program, etc.) relate to eye movement and printed text reading skills.

*Method:* The study will be conducted at the Western Pennsylvania School for the Deaf (WPSD), a large school for deaf students who are from a variety of socioeconomic backgrounds. A sample of 100 WPSD students will be selected to participate. Data will be collected from the subjects, their school records, their teachers, and their parents. Each year for three years, the project will collect data related to eye movement and reading skills from the same group of students. SAT-HI (Stanford Achievement Test - Hearing Impaired Edition) is routinely given to WPSD students and their scores are available in the school records. The project will supplement the SAT-HI scores with other tests such as the TERA (Test of Early Reading Ability - Deaf or Hard of Hearing) and the Gray Oral Reading Test-III to help evaluate reading ability. TERA is an appropriate test for deaf children ages 3 years and up, and it focuses on the construction of meaning from print, knowledge of the alphabet and its functions, and understanding of the conventions involved in written language. The Gray Oral Reading Test will assess reading rate, accuracy, and passage comprehension. The subjects will also be surveyed to determine what programs they normally view, and then a sampling of material from such programs will be recorded off the air. The survey will evaluate both caption reading skills and skills in reading information printed on paper. The project will develop its own custom video materials by writing a script and then shooting a video for the script. The video material will be edited and used to make appropriate materials for evaluating both eye movement and program comprehension. The data collected will be entered into computer files and analyzed using StatView, Excel, and several custom-written graphics programs.

*Products:* Formal reports and journal articles will be developed and disseminated. The project will send reports to an in-house mailing list of caption agencies and colleagues who are interested in captioning research. Presentations at professional conventions will be made.

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Grant Number: H327H000003

**Research on Edited Captions for Deaf Children**

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*Beginning Date:* 1/01/01  
*Ending Date:* 12/31/03

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*Purpose:* This project is a collaboration between the CPB/WGBH National Center for Accessible Media at the WGBH Educational Foundation and researchers at Ohio State University to investigate comprehension differences when deaf and hard-of-hearing children watch videos with edited captions versus near-verbatim captions.

*Method:* The project will evaluate effects of edited captions—captions with a slower presentation rate and modified language—on comprehension. For many deaf children, reading is a frustrating experience, and reading captions is challenging. The goal of edited captions is to help children who are not fluent readers have greater success reading captions and understanding a program. The research questions are: 1) Is there a difference in children's comprehension scores between the near-verbatim and edited videos?; 2) Is there an effect due to the type of assessment used?; and 3) What are the children's preferences and attitudes with respect to the captioned programs in the study and to captioned media in general?. The study will use "Arthur," an Emmy-award winning and extremely popular children's program on public television. The project will use the existing "Arthur" programs, developing 16 videotapes for the study, half of the videos edited and half using the original near-verbatim captions. The project will set up after-school "Arthur" Clubs at eight New England schools, involving a total of 38 children. Participating children will be between 7 and 11 years old and must read at a 2.0 reading level or higher. During each session, children will watch an "Arthur" program with either edited or near-verbatim captions, and an examiner will assess each child on his or her comprehension of the story. There will be two types of assessments—one known as QAR, question-answer relationships, and the other a Retell format—to reduce the possibility of the assessment influencing comprehension scores. Approximately three-quarters of the students will be part of a group design and the remaining students will be part of a single-subject design. Both the caption condition (edited or near-verbatim) and the assessment (QAR and retell) will be randomized. To gather qualitative information about children's attitudes towards captioned media, the project will set up a video lending library and ask students about their reasons for choosing particular programs (which will include both near-verbatim and edited tapes).

*Products:* This project will contribute significantly to knowledge on reading captions and comprehension. If the research results support the project's hypothesis, this research would argue for a second stream of captions on selected children's television programs, in addition to the original "near-verbatim" captions. Media with edited captions could be a new source of age-appropriate materials that have text which matches children's reading abilities.

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# 84.327J

## Video Description Projects

*Grant Number:* H327J000001

### **Narrative Television Network: Broadcast & Cable**

*Project Director:* Stovall, Jim  
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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* JoAnn McCann  
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*Purpose:* Through this project, Narrative Television Network (NTN) will continue to provide accessible television and movie programming to blind and visually impaired Americans.

*Method:* NTN has grown to include over 1,200 broadcast and cable affiliates reaching over 35 million homes in the United States. NTN provides accessible media to blind and visually impaired children and adults via broadcast, cable, and satellite television, home video and audio tapes, live theatre, and museum exhibits. Through NarrativeTV.com, accessible educational and entertainment programming is available to all visually impaired Americans 24-hours-a-day, on-demand, free-of-charge, via the World Wide Web.

*Products:* This project will allow NTN: 1) to produce over 200 additional hours of accessible programming; 2) to maintain the services of its Audience and Industry Relations Manager; and 3) to maintain accessible Program Guides in large print, Braille, and recorded formats.

*Grant Number:* H327J000002

### **Video Description: NTN Home Video & Web**

*Project Director:* Stovall, Jim  
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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* JoAnn McCann  
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*Purpose:* Narrative Television Network (NTN) will provide accessible media to blind and visually impaired children and adults via broadcast, cable, and satellite television; home video; audio tapes; live theatre; museum exhibits; and free-of-charge, on-demand, 24-hours-a-day access via the Web at NarrativeTV.com.

*Method:* NTN will continue its home video work by producing and distributing 150 hours of narrated television, movie, and educational programming via home video as a free service to libraries, schools for the blind, organizations that serve visually impaired people, and NarrativeTV.com. NTN will continue its relationships and

programming agreements with Viacom, King World, Four Star, Nostalgia Television, MCA Universal, Fox Television, and World Vision Enterprises, and will narrate educational programming from National Geographic Television, Classic Arts Showcase, and American Independent Network. NTN also will narrate educational programming through its new relationship with "Cable in the Classroom," which involves such cable networks as Discovery Channel, Nickelodeon, the Weather Channel, Court TV, and CNN.

*Products:* The project will produce 150 hours of video description to serve individuals with blindness or visual impairments.

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*Grant Number:* H327J000004

**Video Description: Children's Programs on Public, Cable, and Commercial  
Television Networks by Descriptive Video Service**

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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

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*Purpose:* WGBH's Descriptive Video Service (DVS) will make public, cable, and commercial television programs accessible to the nation's blind and visually impaired children as well as other viewers who benefit from described children's programming.

*Method:* Narrated descriptions, depicting visual elements such as actions, settings, body language, and graphics of key visuals will be carefully crafted to fit into natural pauses in a program's dialogue, and will be accessible by selecting the Second Audio Program feature, standard on most stereo televisions and videocassette recorders. DVS will maintain a significant presence on the Public Broadcasting Service (PBS) and basic cable service, Turner Classic Movies (TCM). It will also introduce new cable partners, Nickelodeon and Toon Disney, in the first and second years respectively. DVS will continue to foster relationships with the major commercial networks and work with them to bring the debut of video description to commercial television. DVS will continue to reach out to blind and visually impaired children and their parents with materials in accessible formats as well as provisions for gathering feedback and evaluation. DVS will expand upon an aggressive campaign already in progress to educate the television and film industry about the availability of description and to promote video description to the general television audience. Private foundation support will be sought to supplement the activities in this project. DVS also will continue to encourage television producers and funders of children's programming to include video description in their budgets, emulating a new policy at WGBH requiring description in national production budgets.

*Products:* A minimum of 180 program hours for children will be described, and advocacy for video description will be enhanced.

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Grant Number: H327J000005

**Video Description of Television Programs for Adults**

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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* JoAnn McCann  
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*Purpose:* WGBH's Descriptive Video Service (DVS) will make public, cable, and commercial television programs accessible to the nation's 13.5 million people who are blind and visually impaired.

*Method:* Narrated descriptions, depicting visual elements such as actions, settings, body language, and graphics of key visuals will be carefully crafted to fit into natural pauses in a program's dialogue. This description is received by selecting the Second Audio Program feature, standard on most stereo televisions and videocassette recorders. DVS will maintain a significant presence on the Public Broadcasting Service (PBS) and basic cable service, Turner Classic Movies (TCM). It will also expand its presence by introducing a new cable partner, A&E, in the first year. DVS will continue to foster relationships with the major commercial networks and work with them to bring a debut of video description to commercial television. DVS will reach out to blind and visually impaired viewers with materials in accessible formats as well as provisions for gathering feedback and evaluation. DVS will expand upon an aggressive campaign already in progress to educate the television and film industry about the availability of description and to promote video description to the general television audience. Private foundation support will be sought to supplement the activities in this project. DVS also will continue to encourage television producers and funders of adult programming to include video description in their budgets.

*Products:* A minimum of 180 hours of programming aimed at an adult audience will be described, and advocacy for video description on behalf of individuals with blindness or visual impairments will be enhanced.

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# 84.327K

## Accessible Media for Students with Visual Impairments and Print Disabilities

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*Grant Number:* H327K010002

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### **Accessible Media for Students with Visual Impairments and Print Disabilities**

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Recordings for the Blind and Dyslexic, Inc.  
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Princeton, NJ 08540-6206  
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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* Glinda Hill  
*Voice:* 202-205-9145  
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*Purpose:* This project of Recordings for the Blind and Dyslexic (RFB&D) will research, design, and construct an accessible library of digital textbooks for people with print disabilities. After production of these textbooks, the project will begin a broad-scale distribution of content in digital formats on CD-ROM and over the Internet.

*Method:* The project will identify, through market research or member request, the titles of textbooks to be recorded on analog tape, which will then be transferred to digital media. Incorporating elements of universal design, these digital textbooks will offer flexibility and accessibility to promote greater inclusion and independent learning for students with print disabilities. Students can listen to digital audio texts in a variety of ways and in a variety of locations by using school-based networks and downloading as needed. They can also navigate the materials more easily and control playback speed and content.

*Products:* A limited release of digital audio textbooks will take place in the first year of the project and will be shortly followed by a broad-scale distribution of over 3,000 CD-ROMs of the most frequently requested texts. This is expected to double in the next year. Parallel to this will be the development of a virtual community on the Internet that will allow schools to order and download content, training, and support. RFB&D will actively promote its new digital services within the education, disability, publishing, and library communities and in the general media.

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# 84.327L

## Closed Captioned Television Programs – Local News and Public Information

*Grant Number:* H327L990001

### Closed Captioned Television Programs—Local News and Public Information

*Project Director:* Shedd, Tammie  
Visual Audio Captioning  
9803 Sharon Ct.  
Fairfax, VA 22032-1000  
*Voice:* 703-278-9110; *Fax:* 703-934-9139  
*E-mail:* jshedd@radix.net

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* The project will provide start-up costs for real-time captioning for persons who are deaf or hard of hearing, in order to improve their quality of life by providing daily hours of captioned local, state, and national news. It will develop and implement strategies for ensuring equal access and treatment for eligible project participants who are members of traditionally underrepresented groups and it will train expert real-time captioners.

*Method:* This project will provide real-time captions for local news programming during the following hours: 12:00 p.m. to 12:30 p.m. Monday through Friday, 6:00 p.m. to 6:30 p.m. Monday through Sunday, 11:00 p.m. to 11:35 p.m. Monday through Friday, and 11:00 p.m. to 11:30 p.m. Saturday and Sunday. These captions will reach over a million households in the greater Cleveland, Ohio area.

*Products:* The news services captioned by this project will inform and help bring persons who are deaf or hard of hearing into the mainstream of society and serve as educational media to all other individuals who can benefit from closed captioning, including those who are learning English as a second language, who are learning literacy, or who have disabilities.

*Grant Number:* H327L990002

### Closed Captioned Local News Programs WFTV-9 ABC

*Project Director:* Howell, William  
Media Captioning Services  
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Carlsbad, CA 92009-1426  
*Voice:* 407-599-8314; *Fax:* 407-599-8318  
*E-mail:* captionusa@aol.com

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* This project will provide stenographic real-time and live display captioning for the ABC television affiliate in Orlando, Florida during the following hours: 12 noon-12:30 p.m. Monday-Friday and 5:00-6:30 p.m. Monday-Friday. The captioning of these broadcasts will begin real-time captioning of news in the central Florida

market, providing captioning for deaf and hard-of-hearing viewers of live and critically important breaking news.

*Method:* The project will form a consumer advisory group whose members will be selected from the deaf and hard of hearing community. This group will provide extensive feedback on such topics as caption placement, accuracy, use of color captions, and line length in assisting Media Captioning Services to provide the highest quality captioning.

*Products:* The mid-day and 5:00-6:30 newscasts captioned in this project will ensure that deaf and hard of hearing viewers of the number one TV station in Orlando will have real-time captioning of these important time blocks. WFTV9 serves an area encompassing over 2 million people, in one of the fastest growing areas of the country.

*Grant Number:* H327L990003

### **Closed Captioned Television Programs—Local News and Public Information**

*Project Director:* Carter, Lorraine  
Caption Reporters, Inc.  
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Alexandria, VA 22314  
*Voice:* 703-683-2300; *Fax:* 703-683-5289  
*E-mail:* caption@earthlink.net

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
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*Purpose:* This project has two aims: to expand current levels of captioning to include local news programming, and to provide on-going training and mentoring of stenocaptioners.

*Method:* This project will caption five hours of local news weekly in Toledo, Ohio. On an annual basis, stenocaptioners will be trained and mentored in stress control, dictionary maintenance, new techniques, and new technologies.

*Products:* The project will provide increased exposure to news and local public information for the underserved deaf and hard of hearing community in the Toledo, Ohio area. The project will also result in more capable and professional stenocaptioners. They will be better able to cope with the high level of stress associated with captioning.

*Grant Number:* H327L990004

### **Real-Time Captioning of Local Broadcasting in the Four-State Area**

*Project Director:* Mills, Steven  
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Lawrence, KS 66045  
*Voice:* 620-421-6550  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will provide real-time captioning for local news broadcasts and public affairs programming for rural southeast Kansas and the four-corners area of Kansas, Missouri, Arkansas, and Oklahoma. This project addresses the needs of persons who are deaf or hard of hearing as well as individuals who are learning to read English as a second language.

*Method:* The project will be carried out through a cooperative agreement between the University of Kansas and KOAM-TV. The project will implement a telecommunications system that accommodates captioning of local television news broadcasts and public affairs programs and will provide real-time captioning for selected programming and off-line captioning of selected locally produced programming. It will develop a plan for on-going training to expand the base of local stenocaptioners and implement an evaluation process to monitor the operations of the project and the accuracy of the captioning services. The project will establish an advisory panel to provide on-going feedback regarding the quality of captioning services.

*Products:* The project will establish an on-going service delivery system to provide reliable and quality real-time captioning of news and other selected local programming of KOAM-TV that is of local interest to consumers who are deaf or hard of hearing.

*Grant Number:* H327L990006

### **Closed Captioned Local News Programming — Expand Realtime Captioning on KABC-TV Los Angeles**

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Carlsbad, CA 92009-1426  
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*E-mail:* nicole@mediacaptioning.com

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will provide stenographic real-time and live display captioning for a local station in Los Angeles during the following time frames: 1) 5:30 a.m.-7:00 a.m. Monday-Friday and 2) 4:00-5:00 p.m. Monday-Friday. This project will enable deaf and hard-of-hearing viewers to have real-time captioning of all morning and evening KABC-TV newscasts.

*Method:* This project will meet the need to have sufficient stenocaptioning personnel in place who are familiar with local names and terminology and who can provide real-time captioning on an emergency basis to a high level of accuracy. The project will develop additional real-time stenocaptioning personnel who can caption programming on a regular basis and assist with emergency captioning when necessary.

*Products:* Viewers of KABC-TV will have all morning and evening newscasts real-time captioned, totaling 1,304 hours per annum of local news on this station

*Grant Number:* H327L990008

### **Closed Captioned Television Programs**

*Project Director:* Leonard, Charles  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will work in close cooperation with a local television station in Grand Rapids, Michigan, to provide access for the deaf and hard-of-hearing audience to local news broadcasts in a viewing area of nearly 1 million households.

*Method:* The project will provide closed captioning of local news television programming and will provide deaf and hard-of-hearing viewers accessibility to these programs during the week and on weekends. The project will expand the closed captioning of approximately 520 hours per year of local news programs over the three-year period, and it will seek input from the deaf community through the project's consumer advisory board. It will increase private sector support for closed-captioned programming by using federal funds as an inducement for funding support from the station.

*Products:* The output of this project's regularly scheduled hours of captioned local news and public affairs programming each week on WOOD-TV will fulfill viewer demands for more captioned programming. The project intends to promote and publicize the closed-captioned news service in order to create greater awareness and expand the audience size.

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*Grant Number:* H327L990009

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### **Closed Captioning for Local News and Public Information**

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Kentwood, MI 49512  
*Voice:* 616-940-9444  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* This company will work in close cooperation with a television station in Grand Rapids, Michigan to provide access for the deaf and hard of hearing audience to local news broadcasts in a viewing area of nearly 1 million households.

*Method:* The project will provide closed captioning of local news television programming and will provide deaf and hard-of-hearing viewers accessibility to these programs during the week and on weekends. It will expand the closed captioning of approximately 494 hours per year of local news programs over the three-year period. It will seek input from the deaf community through the project's consumer advisory board and increase private sector support for closed-captioned programming by using federal funds as an inducement for funding support from the station.

*Products:* The output of this project's regularly scheduled hours of captioned local news and public affairs programming each week will fulfill viewer demands for more captioned programming. The project will promote and publicize the closed-captioned news service to create greater awareness and expand the audience size.

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Grant Number: H327L990012

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**Closed Captioned Television Programs — Local News and Public Information**

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*Project Director:* Shedd, Tammie  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
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*Purpose:* This project will provide real-time captions for a local television station's 6:00 a.m. to 7:00 a.m. Monday through Friday newscast and another's 10:00 p.m. to 11:00 p.m. Monday through Sunday newscast. These captions will reach 1,172,000 households in the greater Cleveland, Ohio, area.

*Method:* This project will train personnel to become expert real-time captioners and it will improve the quality of life for the deaf and hard of hearing by providing daily hours of captioned local, state, and national news and public service announcements.

*Products:* The news services captioned by this project will inform and help bring persons who are deaf or hard of hearing into the mainstream of society and serve as educational media to all other individuals who can benefit from closed captioning, including those who are learning English as a second language, who are learning literacy, or who have disabilities.

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Grant Number: H327L990013

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**Providing Real-Time Stenographic Captioning Services to KTUL in  
 Tulsa, Oklahoma, and KCPT in Kansas City, Missouri/Kansas**

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 P.O. Box 3593  
 Lawrence, KS 66046-0593  
*Voice:* 785-842-9994; *Fax:* 785-842-9993  
*E-mail:* AnneCSK@cs.com; KalaCSK@cs.com  
*Website:* <http://www.captionservices.com>

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will train new real-time stenographic captioners and provide real-time stenographic captioning for news broadcasts on a Tulsa, Oklahoma, television station. The project will also provide real-time captioning for weekly public information programs in Kansas City, Missouri, and Kansas City, Kansas.

*Method:* Training will be developed for two court reporters to work as real-time stenographic captioners. Captioners will provide real-time captioning services during the three years of the project to reach the more than 3,000,000 viewers in the combined markets of Oklahoma City and Kansas City, over 250,000 of whom are deaf or hard of hearing.

*Products:* The project will increase access to local community news for viewers who are deaf or hard of hearing, who are learning English as a second language, who are learning to read, or who are viewing in noisy environments. Access will be given to both daily news broadcasts and weekly public information programming.

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Grant Number: H327L990017

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**Closed Captioned Local News and Public Information — WHEC-TV**

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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* Through this project, the National Captioning Institute (NCI), in collaboration with WHEC-TV in Rochester, New York, will provide closed captioning of local news and public information programs over the three years of the project.

*Method:* This project will allow NCI to real-time caption three new local news programs on WHEC-TV, offering a full range of early morning, early evening, and late evening newscasts that are accessible to the area's deaf and hard-of-hearing population.

*Products:* The reach of the television station where the captioning will occur includes over 90,000 people in the Rochester, New York, area who are deaf or hard of hearing. By adding three new local news programs to the one that is already being real-time captioned on the station, a full range of daily newscasts will provide access to information for the deaf community, as well as for those who are learning English or have learning disabilities.

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Grant Number: H327L990018

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**Closed-Captioned Local News and Public Information: WOKR-TV**

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*Project Director:* Parker, Darlene  
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1900 Gallows Road, Suite 3000  
Vienna, VA 22182-3865  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
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*Purpose:* Through this project, the National Captioning Institute (NCI), in collaboration with WOKR-TV Rochester, New York, will provide closed captioning for local news and public information programs.

*Method:* The news programming to be captioned will include a weekday early morning news program, a prime time news show, an 11:00 p.m. news broadcast, and a regularly shown program on multicultural affairs and community events.

*Products:* The news shows being captioned are broadcast to an audience of over 1 million people in the Rochester area, with a population of over 90,000 deaf or hard-of-hearing individuals. The captioned shows will culturally benefit this community as well as those people who are learning to read, who are learning English, or who have learning disabilities.

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*Grant Number: H327L990019*  
**Live Real-Time Captioning of News and Public Affairs  
 Programming for the Pacific Northwest**

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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will expand live, real-time captioning for news and public affairs programs in Oregon and expand the project staff's capacity to provide high-quality captions

*Method:* The project will provide captions for the Portland, Oregon, city council, The City Club of Portland, a public broadcast program, and for KEZI, a local television station. Through its real-time captioning services, the project will increase access to news and information through television news broadcasts, expand the amount of information available to citizens regarding key issues of concern through captioning local government meetings and locally produced programs.

*Products:* The project will work with community leaders who have hearing impairments, to reflect their input and build new relationships with them and with the hearing-impaired community, giving them vital access to needed and otherwise inaccessible information. Benefits will also accrue to children and adults who need development with literacy and vocabulary and who are learning English.

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*Grant Number: H327L990020*  
**Closed Captioned Television Programs: Local News and Public Information**

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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will enable Visual Audio Captioning (VAC) to provide real-time captioning of area news programs broadcast on WOIO-TV in Cleveland, Ohio.

*Method:* VAC will collaborate with WOIO-TV in Cleveland, Ohio to provide real-time captions for the weekday afternoon and early evening news broadcasts and daily late-evening news programs, reaching over 1,172,000 households. The project will also train captioners to become expert real-time captioners.

*Products:* The news services captioned by this project will inform and help bring persons who are deaf or hard of hearing into the mainstream of society and serve as educational media to all other individuals who can benefit from closed captioning, including those who are learning English as a second language, who are learning literacy, or who have disabilities.

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# 84.327M

## Technology Research to Practice

*Grant Number:* H327M000003

### **The Computer Reader/Word Processor as a Compensatory Aid for Middle School Students with Learning Disabilities**

*Project Director:* Jamison, Patricia J.  
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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* Ingrid Oxaal  
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*Purpose:* As the national school reform efforts raise the bar for academic performance for secondary students, the student with learning disabilities (LD) is put at increasing disadvantage. This is particularly true of secondary students with serious reading and writing deficits. The purpose of this study is to evaluate the use of a computer reader and word processor technology with a group of middle schools students with reading and writing disabilities.

*Method:* Specifically, the study will evaluate the Kurzweil 3000 computer reader and TextHELP! software, which were specially designed for individuals with disabilities. Twenty-five students with learning disabilities enrolled in five middle schools will be given access to a computer for use in their social studies and English coursework beginning in the second semester of seventh grade and continuing through the second semester of eighth grade. A comparison group of 25 students will also participate.

*Products:* The project will: 1) determine the impact of the computer reader/word processor package on measures of academic achievement of students with learning disabilities during seventh and eighth grades in two content areas; 2) determine the impact of the use of the technology on students' reading and writing skills; 3) evaluate teacher satisfaction with the technology; and 4) describe the differential effects of the use of the technology for various subgroups of students with learning disabilities.

*Grant Number:* H327M000013

### **Improving Communication and Coordination of Assistive Technology Services for Students with Orthopedic Impairments**

*Project Director:* Van Wyck, Michael  
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*Beginning Date:* 11/01/00  
*Ending Date:* 10/30/03

*OSEP Contact:* Louise Tripoli  
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*Purpose:* This project will improve the assessment for and implementation of assistive technology (AT) for students in the Orthopedically Impaired (OI) Program in the Bibb County (Georgia) Program for Exceptional Children.

*Method:* The project will achieve five objectives: 1) set up a multi-point, computer-based video conferencing network through the county's existing wide area network, with an associated database for managing program, student, and family data; 2) improve the implementation and maintenance of AT for students by promoting collaborative teams including staff, families, students, and consultants; 3) establish a mentoring and training system for OI staff that is supported by the conferencing network; 4) integrate the families of the students in the program into the network by helping develop supports, providing training, and supplying network access; and 5) develop mechanisms for monitoring the outcomes of the program and continuously improving the systems.

*Products:* The project will achieve the following outcomes: 1) establish a secure, on-line conferencing network, starting with 10 nodes and growing to 20 by the end of the project; 2) establish a database that can track data related to both the system and the students; 3) develop transdisciplinary collaborative teams using a systematic framework to analyze students' needs and implement accommodations; 4) increase the number of mainstream classes planned for OI students by 15% per year; 5) increase the ratio of standardized academic test scores for OI students as compared with their mainstream peers by 15% per year; 6) reduce the loss of student access to their AT to three days or less per year; 7) promote the resolution of 50% of documented home-based barriers to students' use of AT every year; 8) document 25% improvement in school function, as measured using valid, AT-sensitive outcome measures; 9) set up and maintain mentoring dyads among all network participants; 10) provide 75% of requested AT training for network staff each year, with minimum of 80% participant satisfaction ratings; 11) maintain high levels of interaction among mentoring dyads, with total interactions increasing 25% from the beginning figures; 12) set up a Parent Support Network with a parent coordinator to help develop it into a self-sustaining entity; 13) train parent mentors to help other parents work as collaborators with the school; 14) increase parent/teacher communication 50% by the end of the second year; and 16) develop an advisory board to maintain continuous improvement in the system.

*Grant Number:* H327M000014

### **Assistive Technology for Law to Practice for Early Intervention Children with Disabilities**

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*Beginning Date:* 1/05/01  
*Ending Date:* 1/04/04

*OSEP Contact:* Jane Hauser  
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*Purpose:* This project focuses on the assistive technology needs of children, specifically applied to technology use and access, technology-integrated curriculum, and improving transitions for young children with regard to assistive technology needs. The project will serve children receiving early intervention in eastern Oregon.

*Method:* The first priority will be to develop, revise, and implement a process to consider and provide for assistive technology needs through the development of an Assistive Technology Plan, which includes the following elements: referral, evaluation, extended assessment, plan development and implementation, review, and transition planning. The second priority will be the implementation of assistive technology planning with a specific focus on integrating software, peripherals, access, and individual assistive technology needs into curriculum designed to increase developmental levels for children with disabilities. The final focus will be to increase the

quality of transitions for children from Early Childhood Special Education to elementary school with regard to assistive technology needs, by focusing on training, policy development, and interagency agreements.

*Products:* The expected outcomes will include an Assistive Technology Plan for early intervention children, computer work stations at all Early Intervention classroom sites, and an Internet connection at each site. An equipment lending library, software library, and transition planning process will be developed. The targeted results will include improved assessment, plan development, and provision of technology-integrated services and/or devices to children. Transitions will reflect intentional attention to the assistive technology needs of children with no decrease in the provision of services and/or devices.

*Grant Number:* H327M000015

**From Research to Practice: The Use of Microcomputer  
Technology to Enhance Infants' Lives Project**

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*Beginning Date:* 9/01/00  
*Ending Date:* 8/31/03

*OSEP Contact:* Jane Hauser  
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*Purpose:* This school-based project will bring the research of microcomputer technology, in conjunction with the use of adaptive switches and pediatric software, into practice in the Early Start Infant Programs. The project will address the fact that the results of research and development efforts are not applied in practice and will help students to achieve their full potential.

*Method:* The project will focus on leadership and planning, access to appropriate technology, training, ongoing technical support and coaching, collaboration, and adequate teacher time. The project's technology model will be offered in the Early Start Centers, in the community, and in the infants' homes. Training will be offered to the teachers and parents of the infants.

*Products:* The integration of a comprehensive model for microcomputer technology into an existing public school structure will significantly increase the efficiency and quality of instruction, while decreasing the amount of teacher time needed to achieve instructional objectives. In addition, it will enhance the quality of life for the infants and their families.

*Grant Number:* H327M000018

**Reading Instruction Every Adolescent Deserves: Technology  
Research to Practice Project (Project READTECH)**

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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* Beverly Brightly  
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*Purpose:* This collaborative effort among the Kansas City, Kansas (KCK) Public Schools, the Ewing Marion Kauffman Foundation, and the University of Kansas will develop, implement, evaluate, and sustain a professional development program that will further integrate the use of a research-based technology application into the education of at-risk learners and students with disabilities in the middle school environment.

*Method:* The project will offer: 1) the integration of a multimedia reading program (Scholastic's Anchored Instruction-Based READ 180) into the instruction of general and special education students in seven middle school buildings and one intensive special education program called the Bridges Program; 2) an intensive professional development program; 3) an ongoing and responsive classroom technical assistance program; 4) a collaborative effort with Kansas City Public Schools School-Wide reform efforts including several literacy projects and community partnerships; 5) online staff development to sustain ongoing training and classroom technology implementation beyond the life of the project; and 6) an intensive evaluation program measuring teacher technology use and student outcomes related to literacy.

*Products:* The seven middle school buildings and the Bridges Program (203 general education and 44 special education teachers) will integrate the READ 180 software program into their reading instruction across both general and special education students. Similarly, an effective staff development program will be implemented to further integrate effective instructional practice, including the use of technology tools to better serve the educational needs of all learners. To complement this training program, the University of Kansas will create an interactive online training program to introduce the READ 180 software and supplement face-to-face teacher training efforts.

*Grant Number:* H327M000019

### **Assistive Technology in the Schools**

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*Beginning Date:* 1/01/00  
*Ending Date:* 12/31/03

*OSEP Contact:* Jane Hauser  
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*Purpose:* This project will identify, implement, and evaluate research-based approaches for using technology to improve the educational outcomes of elementary students with disabilities in the Williamsville Central School District in western New York.

*Method:* Within the three-year project, research-based approaches to assistive technology (AT) will be implemented within the six elementary buildings of the district. These methods will meet the unique needs of this suburban district, be systematically integrated into existing structures, and will continue after the project ends. The project will partner with local universities to build the capacity of school district personnel to screen, evaluate, apply, modify, and coordinate elements of successful AT interventions.

*Products:* The project will develop new, more relevant methods of providing students, parents, teachers, therapists, and school administrators with: 1) access to the ever-expanding knowledge base on educational and assistive technologies; 2) screening and evaluation procedures to address the AT needs of students; and 3) training on the use of AT in the classroom. Knowledge gained will be shared with all school stakeholders: children, teachers, educational aides, administrators, family members, and therapists in western New York as well as across the state and nation.

# 84.327N

## Open-Captioned Educational Media: Video Selection, Captioning, and Distribution

*Grant Number:* H327N010001

### **Open-Captioned Educational Media: Video Selection, Captioning and Distribution**

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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/06

*OSEP Contact:* Ernest Hairston  
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*Purpose:* The National Association of the Deaf's Captioned Media Program (CMP) will evaluate, caption, and distribute media for persons who are deaf and hard of hearing. The mission statement of the CMP is "Entering the twenty-first century, the ultimate goal of the CMP is to permit media to be an integral part in the lifelong learning process for all stakeholders in the deaf and hard-of-hearing community: adults, students, parents, and educators."

*Method:* The Captioned Media Program will contribute to the delivery of high-quality instruction as it provides open captions for learning materials for educators and deaf persons. The open captioning will be done using proportionally spaced upper- and lower-case letters, which is more effective than monospaced letters for beginning and remedial readers and for multicultural students' emerging literacy. Videos selected for classroom use will be at an appropriate language level and captions will be appropriately paced.

*Products:* The project will provide captions for materials reviewed and recommended by teachers and other professionals, parents, and/or deaf and hard-of-hearing consumers. Increased emphasis in collection building will be placed on filling multicultural needs. The project will also provide a free source of captioning information and training for beginning captioning agencies, media producers/distributors, schools, and others.

# 84.327P

## Closed Captioned Sports Programs

*Grant Number: H327P000007*

### Closed Captioned Sports Programs: Fox and FX

*Project Director:* Karlovits, Joseph  
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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will allow VITAC to continue to caption a variety of sports programs available to audiences on broadcast and basic-cable television networks. The project will continue the captioning of 754 hours of sports programs in a cost-effective manner.

*Method:* VITAC will continue and expand the captioning of nationally televised programs that closely match the preferences of the captioning audience. The project will expand private sector support for captioned programming by using federal funds as an inducement to increase funding support from program producers. The project, through its Caption Viewers Advisory Panel, will continue to seek support from the deaf community and to inform the community about the captioning work of the project.

*Products:* VITAC will continue its live captioning of over 700 hours of Fox Sports program and 54 hours of sports programs on the FX Network. Because of outside funding from the networks whose programs are being captioned, the amount of programming that can be captioned can be increased without an increase of federal funding.

*Grant Number: H327P000008*

### Closed Captioned Sports Programs: NBC, USA, Global, and RHS

*Project Director:* Karlovits, Joseph R.  
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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

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*Purpose:* This project will caption a variety of sports programs available to audiences on broadcast and basic-cable television networks, thus meeting a daily need of millions of American citizens who have not had access to the spoken narrative of televised sports programs.

*Method:* This project will provide sports captioning on the following networks: NBC Sports, USA Network sports, the EC Sports Network, and the Global Sports Network. It will continue and expand the captioning of

nationally televised programs that closely match preferences of the captioning audience, expand private-sector support for captioned programs by using federal funds as an inducement to increase funding support from program producers, and continue to seek input from the deaf community through VITAC's Caption Viewers Advisory Panel and to inform the deaf community about this project.

*Products:* The project will continue the following annual captioning capacities: 316 hours of NBC sports programs, more than 75 hours of sports on the USA Network, 142 hours on the EC Sports Network, and 13 hours on the Global Sports Network.

*Grant Number:* H327P000012

### **Closed Captioned Sports Programs: NFL Films**

*Project Director:* Karlovits, Joseph  
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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* JoAnn McCann  
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*Purpose:* Through this project, VITAC will caption a series of programs about professional football produced by NFL Films. These timely pieces will be made available to audiences on broadcast and basic-cable networks.

*Method:* The project will expand the capability of VITAC to caption nationally televised programs that closely match preferences of the captioning audience. Through its Caption Viewers Advisory Panel, VITAC will continue to seek input from the deaf community and inform that community about this project.

*Products:* VITAC will annually caption 346 programs produced by NFL Films, which amounts to over 220 hours of film. NFL Films will offer support to help fund caption preparation and off-line encoding costs, which will increase the amount of programming that can be captioned.

*Grant Number:* H327P000014

### **Closed Captioned Sports Programs: Fox and Turner**

*Project Director:* Okrand, Marc  
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*Beginning Date:* 10/01/00  
*Ending Date:* 9/30/03

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project of the National Captioning Institute (NCI) will involve a collaboration with the Turner Entertainment Network and the Fox Broadcasting Company to provide 343 hours of closed-captioning services for basketball games and other sports programming. The project will increase the availability of closed-captioned sports programming for people who are deaf or hard of hearing, including teens and Spanish-speaking populations.

*Method:* The project will provide almost 325 hours of captioning each grant year for National Basketball Association pre-season and regular season games, and playoffs airing on TBS and TNT (Turner networks). Fox

will help caption 20 hours of sports programs each year. The Fox shows are targeted to youth ages 12 to 17. Captioning will be done off-line in real time.

*Products:* In all, this project will offer captions for almost 400 hours of sports programming annually to as many as 100 million households.

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*Grant Number:* H327P000016

### **Providing English and Spanish Language Real-Time Captioning of Sports**

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*Project Director:* Hansel, Mike  
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*Beginning Date:* 10/27/00  
*Ending Date:* 9/30/03

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*Purpose:* This project of Real-Time Captioning (RTC) will provide low-cost closed captions for real-time English-language and Spanish-language televised sports programming. The English-language programs will be televised nationally on the NBC television network and Spanish-language programs will be broadcast on Telemundo, a national Spanish-language network.

*Method:* RTC will caption almost 400 hours of live sports events for NBC and Telemundo in order to demonstrate the importance of captioning all types of sporting events and to make a greater number of programs accessible to the deaf and hard-of-hearing communities. It will advertise the availability of these captioned programs through community newsletters, publications for the deaf community, other publicity-related events, and the efforts of its consumer advisory board.

*Products:* This project will meet the needs of the deaf community within the English-language and Spanish-language communities. Some of the events to be captioned will include the Wimbledon competition, the Breeders Cup, Triple Crown horse races, National Basketball Association games, Sportsworld programs, and Futbol Telemundo.

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# 84.327Q

## Congressionally Mandated Activity

Grant Number: H327Q010001

### Reading Rockets: A Multimedia Literacy Project

*Project Director:* Gunther, Noel  
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*Website:* <http://www.readingrockets.org>

*Beginning Date:* 7/01/01  
*Ending Date:* 6/30/04

*OSEP Contact:* Jane Hauser  
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*Purpose:* "Reading Rockets" is a multimedia project that will disseminate research findings on early diagnosis, intervention, and effective strategies for teaching reading to young children with reading disabilities. "Reading Rockets" aims to reach teachers, parents, child care providers, school administrators, policy makers, and others who care about helping at-risk children learn how to read.

*Method:* The "Reading Rockets" project includes the following: 1) a one-hour documentary on reading instruction, to be narrated by Morgan Freeman, airing in the spring of 2002; 2) an ambitious, comprehensive reading World Wide Web site ([www.readingrockets.org](http://www.readingrockets.org)) offering practical information, expert advice, and resources on reading; 3) a five-part educational series focusing on innovative strategies to teach reading, featuring children's book authors such as Kate Duke, Rosemary Wells, and William Joyce; 4) a series of teleconferences produced in conjunction with the National Association of State Directors of Special Education; and 5) a bilingual print guide.

*Products:* This project plans to: 1) extend the life of the "Reading Rockets" World Wide Web site and provide additional features on the site; 2) produce a sixth-half hour program in the educational TV series; 3) broadcast the entire educational series on public television; 4) launch an intensive outreach effort, including the creation of a local outreach initiative that will serve as a model for national replication; 5) launch a more extensive promotional effort for the documentary and World Wide Web site; and 6) produce public service announcements featuring children's book authors and famous astronauts, to be aired on public TV stations.

# 84.327S

## Closed Captioned Daytime Television Programs

*Grant Number:* H327S010003

### Captioned Daytime Television: Spanish Language Programming

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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

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*Purpose:* This project aims to meet the needs of a vastly underserved portion of the U.S. population—deaf and hard of hearing Spanish-speaking television viewers.

*Method:* CaptionMax will provide offline closed captions for “La Corte del Pueblo” and “Cine de la Tarde” for Telemundo Network. All the programs in this project are Spanish-language programs airing during daytime hours and all will be captioned in Spanish.

*Products:* This project will continue and expand the variety of closed captioned daytime television programming available on a national basis. CaptionMax will bring accessible daytime programming to Spanish-speaking deaf and hard of hearing people, the fastest growing and an underserved segment of U.S. population.

*Grant Number:* H327S010008

### Closed Captioned Daytime Television Programs - 1

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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* JoAnn McCann  
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*Purpose:* The nonprofit National Captioning Institute (NCI) will collaborate to provide 1,887 hours of closed captioning services each year for this project. The mix of programming planned will be of interest to a diverse audience, as evidenced by a recent NCI survey of deaf and hard-of-hearing television viewers.

*Method:* Captioning will be provided through partnerships with: 1) MSNBC, an all-news cable television network; 2) Oxygen Media, which provides diverse programming targeted specifically to women; 3) AMC, with programming devoted to classic films as well as original productions about American film; and 4) Ovation, with

informational and educational programs featuring authors, the theatre, artists, composers, architecture, and musicians.

*Products:* This project will offer closed captioning for 1,887 hours of daytime programming to over 71 million households.

*Grant Number:* H327S010010

### **Closed Captioned Daytime Television Programs - 2**

*Project Director:* Okrand, Marc  
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*Beginning Date:* 10/01/01  
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*OSEP Contact:* JoAnn McCann  
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*Purpose:* The National Captioning Institute (NCI) will collaborate with four cable networks—ESPNews, CNN en Espanol, Outdoor Life Network (OLN), and Speedvision Network—to provide 1,651 hours of closed captioning services each year for this project, including 52 hours of Spanish-language captioning per year. The mix of programming planned for this project is of great interest to a diverse audience, as evidenced by a recent NCI survey of deaf and hard of hearing television viewers.

*Method:* ESPNews is an all-news sports cable television network. CNN en Espanol provides continuous Spanish-language news coverage of major world events, worldwide business news, global weather updates, as well as sports and feature programming. OLN is a 24-hour cable basic network that focuses on expeditions and adventure, wildlife and environmental issues, and other outdoor sports and activities. NCI will also be partnering with Speedvision, a 24-hour cable network providing in-depth and authoritative automotive, marine, aviation and motorcycle coverage.

*Products:* This project will offer 1,651 hours of daytime programming to over 38 million households.

*Grant Number:* H327S010014

### **Closed Captioned Programming on Fox News Channel**

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Carlsbad, CA 92009-1426  
*Voice:* 760-431-2882; *Fax:* 760-431-8735  
*E-mail:* mediacap3@earthlink.net

*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* Media Captioning Services (MCS) will provide stenographic real-time and live display captioning services for Fox News Channel daytime news programming.

*Method:* Viewers of Fox News Channel, which reaches more than 60 million homes, will have captioning for Fox's live weekday daytime programming, which features in-depth news coverage, live breaking news, and fair and balanced coverage of the day's events.

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*Products:* This project will assure continued access for deaf and hard-of-hearing viewers to Fox News Channel, to enable them to be kept well informed about today's world during key daytime hours.

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*Grant Number:* H327S010015

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### **Closed Captioned Programming on CNN**

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*Project Director:* Ferrier, Patricia  
Media Captioning Services  
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*E-mail:* mediacap2@earthlink.net

*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
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*Purpose:* Media Captioning Services (MCS) will provide stenographic real-time and live display captioning services of CNN (Cable News Network) daytime news programming.

*Method:* Viewers of CNN, which reaches more than 81 million homes, will have weekday and weekend captioning of CNN's daytime programming, which features in-depth news coverage; live breaking news; and specialized daily reports on business, finance, medicine, and science.

*Products:* This project will assure continued access for deaf and hard-of-hearing viewers of CNN, to enable them to be kept well informed about today's world during key daytime hours.

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**84.327T**  
**Cultural Experiences for Deaf or  
 Hard of Hearing Individuals**

*Grant Number: H327T010003*

**More Dreams to Sign**

*Project Director:* Yeh, Mary; Calhoun, Wendy Jonas  
 Bethesda Academy of Performing Arts  
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 Bethesda, MD 20817  
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*Beginning Date:* 1/01/02  
*Ending Date:* 12/31/04

*OSEP Contact:* Ernest Hairston  
*Voice:* 202-205-9172  
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*Purpose:* The Bethesda Academy of Performing Arts (BAPA's) project, "More Dreams to Sign," is intended to: 1) improve the quality and value of BAPA's integrated (deaf and hearing) Deaf Access Companies (Senior Deaf Access and Junior Deaf Access) and Hand in Hand (adult) Company productions; 2) promote awareness of deafness, deaf culture, and the achievements of the deaf among actors, audiences, teachers, school children, and the public, with a special emphasis on the educational market; 3) promote appreciation of other cultures by producing plays based on folk tales from other cultures, and inviting deaf and hearing guest artists from those cultures to act, direct, and conduct workshops; 4) involve and promote the advancement of individuals with disabilities in project planning and implementation; and 5) provide quantitative and qualitative data on growth of awareness of deaf culture among audiences who view Deaf Access Company and Hand in Hand Company productions.

*Method:* BAPA's Deaf Access Program will work to build academic, artistic, and social skills, and self-confidence in deaf students. Through theatre, the program will open the culture of the deaf to people in the hearing world, and vice versa.

*Products:* Building on the successful "Dreams to Sign" project, the "More Dreams to Sign" project will design and implement cultural activities for deaf, hard-of-hearing, and hearing youth and adults, including theatrical productions, tours, workshops, videos, a book, documentaries, broadcasting, and educational materials.

*Grant Number: H327T010004*

**Lexington Performing Arts Project**

*Project Director:* Keane, Kevin  
 Lexington School for the Deaf Foundation  
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 Jackson Heights, NY 11370  
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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* Ernest Hairston  
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*Purpose:* The goals of the Performing Arts Project are to improve deaf children's literacy and educational outcomes, provide vocational opportunities for young deaf adults, and raise the awareness of the public about the talents and accomplishments of deaf people.

*Method:* With New York City Community District 25 and the Alvin Ailey Dance Foundation as key partners, Lexington School for the Deaf will integrate deaf and hard-of-hearing children with hearing children, and the deaf and hard-of-hearing adults with hearing adults, in dance education and theatrical productions. The project will use the Mediated Learning Experience (MLE) approach to educating deaf children.

*Products:* The expected outcomes of this project are the following: 1) educational outcomes will improve for the deaf students who participate directly in project activities; 2) young adults will increase their vocational skills; and 3) 2,000 new members of the hearing public will come each year to the Lexington Performing Arts Center to enjoy and appreciate performances that highlight the accomplishment and talents of deaf people. Videos will be produced of both the dance and theatrical productions and will be disseminated within the educational community to heighten awareness of the project and encourage its adoption as a model.

*Grant Number:* H327T010008

### Theatre Bridge

*Project Director:* Wales, Alexandria; McCarty, Tim  
*Quest:* Arts for Everyone  
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 Lanham, MD 20706  
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*E-mail:* cleopatrajk@yahoo.com

*Beginning Date:* 12/01/01  
*Ending Date:* 11/30/04  
*OSEP Contact:* Ernest Hairston  
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*Purpose:* Quest: Arts for Everyone, in partnership with Gallaudet University, will provide a variety of cultural activities to enrich the lives of deaf and hard-of-hearing people. By enlightening the general public and by conducting advocacy activities, the Theatre Bridge partners will increase training and employment opportunities in the arts for people who are deaf and hard of hearing.

*Method:* The Theatre Bridge Project will: 1) produce professional theatrical productions that feature casts and production staff of deaf, hard-of-hearing, and hearing people; 2) provide scholarships for deaf and hard-of-hearing individuals to attend the Quest Academy, which features eight-week courses in theatre and dance and places strong emphasis on visual theatre; 3) provide schools, assisted living centers, and independent living centers serving under-represented or economically disadvantaged populations with reduced-fee or no-cost performances by Quest's touring company, "Road Signs," whose performances celebrate deaf culture through sign mime, A-B-C stories, poetry, songs performed in sign language, and dance; 4) conduct an annual retreat for aspiring deaf and hard-of-hearing playwrights; 5) support approximately 100 American deaf and hard-of-hearing artists to participate in the Deaf Way II Arts Festival and Artists' Symposium that will take place at the John F. Kennedy Center for Performing Arts, Smithsonian Institution, Clarice Smith Center for the Performing Arts at the University of Maryland, and Gallaudet University to celebrate the visual, performing, and literary arts of deaf and hard-of-hearing people; 6) encourage professional theatres in the Washington metropolitan area through the League of Washington Theatre's Accessibility Committee; and 7) promote training and employment opportunities in the arts for deaf and hard of hearing Marylanders through the Maryland Governors' Advisory Committee on Careers in Arts for People with Disabilities.

*Products:* Quest will report progress of the Theatre Bridge Project to the ArtsBridge National Task Force and National Council. Quest will also disseminate information about the project through its biannual newsletter, World Wide Web site, and articles in newsletters and journals.

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*Grant Number:* H327T010010

### **The Impact of Theatrical Experiences on the Total Development of the Individual Who is Deaf or Hard of Hearing**

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*Project Director:* Scherer, Patricia  
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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/04

*OSEP Contact:* Ernest Hairston  
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*Purpose:* This project will explore the impact of theatrical experience on the total development of individuals who are deaf or hard of hearing by providing training, knowledge, and skill development that will lead to the enhancement of the adult experience, irrespective of hearing status or cultural background. The project will also develop awareness and appreciation by the hearing public of the artistic contributions to society by persons who are deaf or hard of hearing.

*Method:* The project will develop and produce an annual professional adult play with parts for children, an annual children's play, and a biannual play for teenagers. Children who are deaf or hard of hearing across the state of Illinois will be involved in two ten-week theater and dance workshops and an annual summer drama camp. An original professional show about deafness and deaf culture will run weekly in conjunction with a Children's Museum on Deafness developed by the project.

*Products:* As a result of the project's activities, children, teens and adults will receive training in all aspects of theater by professional adults who are deaf, hard of hearing, and hearing. The project will help them develop their cognitive, artistic, vocational, and social skills; will present information about children's literature, American Sign Language and its application to the arts, and the cultural aspects of deafness; and will develop a fuller appreciation for literature and the performing arts. Project activities will be held in public, private, and residential schools in inner city and suburban areas.

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*Grant Number:* H327T010017

### **Deaf Youth Drama Program**

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*Project Director:* Seago, Billy  
Seattle Children's Theatre Association  
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*Beginning Date:* 1/01/02  
*Ending Date:* 12/31/04

*OSEP Contact:* Ernest Hairston  
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*Purpose:* The primary objective of this program is to provide opportunities for Deaf and Hard-of-Hearing youth to develop personally and artistically through theatre education and theatre arts training taught by Deaf theatre professionals.

*Method:* The program will conduct the following activities: 1) local residencies in Puget Sound area schools, culminating in the "Deaf Kids Drama Festival," at Seattle Children's Theatre (SCT); 2) statewide outreach residencies, preceded by an interactive video conference, also culminating in a performance for family, friends, and the community; 3) summer classes and conservatories for Deaf and Hard-of-Hearing children, teens, and young adults, with the conservatories including a professional quality theatrical production; and 4) development of a structured national model, demonstrating the program and disseminating information to target communities nationwide. The primary participants in the Deaf Youth Drama Program (DYDP) are in grades K-12. However, this program serves their hearing peers, families, and the Deaf and Hard of Hearing communities as well.

*Products:* The following outcomes are expected from this project each year: 1) more than 150 Deaf and Hard-of-Hearing students in the Puget Sound region served through the local residencies and "Deaf Kids Drama Festival"; 2) more than 150 Deaf and Hard-of-Hearing students served throughout Washington state through the interactive video conferencing and outreach residencies; and 3) more than 25 Deaf and Hard-of-Hearing students from throughout western Washington served through the summer classes and conservatory. In addition, the following outcomes from the project will occur over the course of the three-year project: 1) establishment of three to four similar programs throughout the country; 2) increased awareness of Deaf and Hard-of-Hearing culture in Washington State; and 3) increased academic and personal achievement among Deaf and Hard-of-Hearing program participants.

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# 84.327U

## Closed Captioned Television Programs

Grant Number: H327U990001

### Closed Captioned Television Programs: Syndicated Programs

*Project Director:* Idoni, Linda  
WGBH Educational Foundation  
The Caption Center  
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Boston, MA 02134  
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*E-mail:* Linda\_Idoni@wgbh.org

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* The Caption Center, a nonprofit service of the WGBH Educational Foundation, will closed caption approximately 339.5 hours annually of nationally syndicated classic, or "evergreen," television programming for the benefit of the nation's deaf and hard-of-hearing audience. This project will increase the availability of a wide range of closed captioned syndicated "evergreen" television programs which are enjoyed by individuals who are deaf or hard of hearing and their families. In addition to providing access to syndicated programs for this population, this project also makes it possible for individuals who can hear to enhance their literacy skills whether they are just learning to read, or are native speakers of other languages who are learning English as a second language.

*Method:* The Caption Center will produce captions in its Los Angeles facility, with additional staff and technical resources available at its Boston and New York facilities. All three offices are fully equipped and all personnel are in place so that The Caption Center can begin captioning programming at once. The caption-viewing audience will continue to communicate with this project via e-mail, letters, phone calls, TTY, and Internet bulletin boards.

*Grant Number: H327U990002*

### **Closed Captioned Television Programs: National News and Public Information, ABC and CBS Networks**

*Project Director:* Karlovits, Joseph  
 VITAC Corporation  
 101 Hillpointe Drive  
 Canonsburg, PA 15317-9503  
*Voice:* 724-514-4000; *Fax:* 724-514-4111  
*E-mail:* Joe-K@vitac.com

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* VITAC will caption a variety of national news programs available to audiences on two broadcast-television networks: ABC and CBS.

*Method:* The objectives throughout the three years of the project are the following: 1) to continue the quality captioning of ABC News and CBS news programs, special reports, and emergency coverage; 2) to continue and expand the captioning of nationally televised programs which closely match preferences of the captioning audience; 3) to expand private sector support for captioned programming by using federal funds as an inducement to increase funding support from program producers; and 4) to continue to seek input from the deaf community through VITAC's Caption Viewers Advisory Panel, and to inform the deaf community about this project.

*Products:* The project will provide closed captioned television programming which has become a part of the daily routine for millions of citizens who are deaf and hard-of-hearing. It will continue to be the primary source of news, information, and entertainment for many people, and a cultural experience which hearing and non-hearing members of the same family can share on equal footing.

*Grant Number: H327U990003*

### **Closed Captioned Television Programs: Children's Programs**

*Project Director:* Karlovits, Joseph  
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*Voice:* 724-514-4000; *Fax:* 724-514-4111  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* This project will provide deaf and hard-of-hearing Americans with access to hundreds of hours of TV series for children being released nationally. VITAC's specific objectives are: 1) to assure the quality captioning of 220 hours of children's TV programs in Year One of the project; 2) to expand the captioning of nationally televised programs which closely match preferences of the captioning audience; 3) to expand private sector support for captioning programming by using federal funds as an inducement to increase funding support from program producers; and 4) to continue to seek input from the deaf community through VITAC's Caption Viewers Advisory Panel, and to inform the deaf community about this project.

*Method:* VITAC will caption a wide variety of first-run children's programs available to national TV audiences. Programming will be captioned from FOX Children's Network. Programs such as "The Magic School Bus," "Life with Louie," and "Goosebumps" will be captioned. Additional programming will be captioned from The Program Exchange: Space Kidettes and King Leonardo.

*Products:* The children's programs captioned by this project are primarily designed to entertain; however many programs are also designed to educate. The ability of deaf students to compete will be increased because they will have access to the same powerful tools as their hearing counterparts.

*Grant Number:* H327U990004

### **Closed Captioned Television Programs: Children's Programs**

*Project Director:* Karlovits, Joseph R.  
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*Voice:* 724-514-4000; *Fax:* 724-514-4111  
*E-mail:* Joe-K@vitac.com

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* Through this project, and with support from four major distributors of children's programming, VITAC will caption new children's television programs and reformat repeat programs.

*Method:* In the first year of the project, VITAC will caption over 170 hours of new children's television programs. VITAC has obtained support from the four distributors of programs which will enable it to greatly increase the amount of programming which can be captioned. It will work to expand the captioning of nationally televised programs based on the preferences of the captioning audience and it will expand private-sector support for captioned programming. All of the programs will be captioned in "pop-on" style.

*Products:* In addition to providing thousands of hours of captioning for the children's programs, VITAC will inform the deaf community of its services via newsletters, press releases, a web site, and personal appearances by spokespersons.

*Grant Number:* H327U990005

### **Closed Captioned Television Programs: Syndicated Television Programming**

*Project Director:* Karlovits, Joseph R.  
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Canonsburg, PA 15317-9503  
*Voice:* 724-514-4000; *Fax:* 724-514-4111  
*E-mail:* Joe-K@vitac.com

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* This project will allow VITAC to caption a variety of "evergreen" classic programs available to audiences through syndication, allowing them access to this cultural experience and allowing both hearing and non-hearing individuals to experience it on equal footing.

*Method:* In the first year of the project, VITAC will caption over 350 hours of classic television programs. VITAC has obtained support from three major distributors of syndicated programs which will enable it to greatly increase the amount of programming which can be captioned. It will work to expand the captioning of nationally televised programs based on the preferences of the captioning audience and it will expand private-sector support for captioned programming. All of the programs will be captioned in "pop-on" style and will be done with sensitivity to non-dialogue concerns such as music, sound effects, and even silences; the overall goal will be for the non-hearing viewer to get the same information and emotional experience as the hearing viewer.

*Products:* In addition to providing thousands of hours of captioning for the “evergreen” programs, VITAC will inform the deaf community of its services via newsletters, press releases, a web site, and personal appearances by spokespersons.

*Grant Number:* H327U990006

### **Closed Captioned Television Programs: National News & Public Information, CNN Headline News**

*Project Director:* Karlovits, Joseph R.  
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*E-mail:* Joe-K@vitac.com

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* Through this project, VITAC will caption over 5,700 hours of CNN Headline News and continue to expand the captioning of nationally televised programming that closely matches the preferences of the captioning audience.

*Method:* In the first year of the project, VITAC will caption over 110 hours each week of CNN Headline News’ round-the-clock news coverage available to cable television audiences. It will expand private-sector support for captioned programming by seeking private support to ensure that the amount of captioned programming remains constant. All of the programs will be captioned in “pop-on” style.

*Products:* In addition to providing thousands of hours of captioning for Headline News programs, VITAC will inform the deaf community of its services via newsletters, press releases, a Web site, and personal appearances.

*Grant Number:* H327U990007

### **Closed Captioned Television Programs: National News and Public Information**

*Project Director:* Karlovits, Joseph R.  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
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*Purpose:* Through this project, VITAC will close-caption the full variety of national news programs available to audiences on the NBC network.

*Method:* Each year, VITAC will continue to caption over 1,600 hours of NBC news, special reports, and emergency coverage on NBC.

*Products:* This grant will meet the urgent daily needs of millions of American citizens who are deaf or hard of hearing to have access to televised news reporting. The project will continue to seek input from the deaf community about preferences and it will inform the community of its services through its advisory panel, newsletters, a web site, and spokespersons.

Grant Number: H327U990008

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### **Closed Captioned Television Programs: Syndicated Television Programming**

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*Project Director:* Karlovits, Joseph R.  
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 101 Hillpointe Drive  
 Canonsburg, PA 15317-9503  
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*E-mail:* Joe-K@vitac.com

*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* Through this project, VITAC will caption a variety of “evergreen” classic television programs made available to audiences through syndication.

*Method:* In the first year of the project, VITAC will caption over 450 hours of classic television programs. It will work to expand the captioning of nationally televised programs based on the preferences of the captioning audience and it will expand private-sector support for captioned programming. All of the programs will be captioned in “pop-on” style.

*Products:* In addition to providing thousands of hours of captioning for the “evergreen” programs, VITAC will inform the deaf community of its services via newsletters, press releases, a Web site, and personal appearances by spokespersons.

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Grant Number: H327U990009

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### **Closed Captioned Television Programs: Children’s Programs**

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*Project Director:* Idoni, Linda  
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 The Caption Center  
 125 Western Avenue  
 Boston, MA 01234  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
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*Purpose:* This project of The Caption Center will continue and expand the availability of closed captioned children’s programming. It will maintain quality standards and refine its captioning operation to ensure the accurate transmission of caption data for all major feeds, whether pre-recorded or automatic live-encoded.

*Method:* The project will caption 411 hours annually of the most popular children’s programming. Program currently captioned will continue without interruption and new programs will be selected on the basis of their popularity and availability. Partnerships will be established with producers of children’s programming on broadcast and cable television.

*Products:* The life of the programs captioned through this project will be extended through “after market” caption data: subsequent broadcast, online services, and distribution through home video, CD-ROM, and DVD. The project will also aggressively promote the benefit of captioned children’s programs to the traditional deaf and hard-of-hearing audiences, as well as to new audiences, including children learning to read or struggling to learn English.

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*Grant Number:* H327U990010

### **Closed Captioned Television Programs: National News and Public Information**

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*Project Director:* Spellman, Jack  
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 Boston, MA 02134  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* Through this project, The Caption Center will continue its mission of providing the widest possible access to television and video for deaf and hard-of-hearing people by captioning national newscasts, public information programming, and emergency programming on broadcast and cable networks, while maintaining or enhancing the quality of captioning on those programs.

*Method:* This project will allow The Caption Center to continue uninterrupted captioning coverage of news and public information programming on CBS, PBS, A&E, and Knowledge TV and to continue to set quality and service standards for audiences and the captioning industry. Through the project, over 1800 hours of news programming and emergency coverage each year will be captioned.

*Products:* During the project, in addition to the captioned programming, The Caption Center will provide various outreach activities to promote the availability of captioned news and public information programs, and to build awareness of the service and the availability of The Caption Center's resources.

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*Grant Number:* H327U990013

### **Closed Captioned News and Public Information - Two**

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*Project Director:* Chao, Gene; Finkelstein, Karen  
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 Vienna, VA 22182-3865  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
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*Purpose:* The National Captioning Institute (NCI), in collaboration with three major television news networks, will close-caption a selection of national news and public information programs over a three-year period, increasing the availability of closed-captioned national news and public information programs.

*Method:* The project will select a mix of news and public information programs for captioning that meets the diverse cultural and educational interests of deaf and hard-of-hearing consumers by identifying their needs and establishing close working partnerships with broadcasters. Fifty percent of the costs of captioning these shows will be shared by the collaborating producers and networks, showing their commitment to making television accessible to people who are deaf or hard of hearing. Captioning will be done using real-time and live-display technologies.

*Products:* As a result of this project, a wide range of news and public information programs will be made accessible to people who are deaf or hard of hearing. The applications of captioned TV and videos will extend

beyond the deaf community to other populations: young children learning to read, remedial readers, children and adults with learning disabilities, illiterate adults, and those learning English as a second language.

*Grant Number:* H327U990014

### **Closed Captioned Children's Television - Two**

*Project Director:* Chao, Gene; Gray, Stephanie  
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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

*OSEP Contact:* JoAnn McCann  
*Voice:* 202-205-8475  
*E-mail:* joann.mccann@ed.gov

*Purpose:* The National Captioning Institute (NCI), in collaboration with five major producers and broadcasters of children's television programs, will close-caption a variety of children's programs to increase the availability of closed-captioned programming for children who are deaf and hard of hearing and their families.

*Method:* NCI has combined children's television programs from five major networks and companies to create a mix of captioned shows that is intended to meet the diverse educational, cultural, and entertainment interests of children who are deaf and hard of hearing. The shows will include various "Cable in the Classroom" programs as well as cartoons and other original programs. Costs of captioning these shows will be shared by the collaborating producers and networks, evidence of their commitment to making television shows more accessible to children.

*Products:* Each year of the project, over 500 hours of children's programming will be captioned. The availability of captioned children's programs that will result from this project will add to the resources available to support the application of captioned TV in reading and literacy education.

*Grant Number:* H327U990016

### **Closed Captioned News and Information - One**

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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

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*Purpose:* The National Captioning Institute (NCI), in collaboration with a variety of television news producers and broadcasters, will close-caption hours of national news and public information programs over a three-year period, increasing the availability of closed captioned national news and public information programs.

*Method:* The project will select a mix of news and public information programs for captioning that meets the diverse cultural and educational interests of deaf and hard-of-hearing consumers by identifying their needs and establishing close working partnerships with broadcasters. The costs of captioning these shows will be shared by the collaborating producers and networks, showing their commitment to making television accessible to people who are deaf or hard of hearing. Captioning will be done using real-time and live-display technologies.

*Products:* As a result of this project, a wide range of news and public information programs will be made accessible to people who are deaf or hard of hearing. The applications of captioned TV and videos will extend beyond the deaf community to other populations: young children learning to read, remedial readers, children and adults with learning disabilities, illiterate adults, and those learning English as a second language. All told, about 100 million Americans can benefit from captioned television.

*Grant Number:* H327U990017

### **Closed Captioned Syndicated Television**

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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

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*Purpose:* The National Captioning Institute (NCI), in collaboration with seven major television producers and broadcasters, will complete closed-captioning of more than 831 hours of syndicated off-network or "evergreen" television programs over the three-year period of the grant.

*Method:* NCI has combined programs from the various networks and companies to create a mix of captioned shows that is intended to meet the diverse cultural and entertainment interests of viewers. As a result of this project, a wide range of off-network and popular, previously broadcast programs or series with long shelf lives will be made accessible to people who are deaf or hard of hearing. To deliver cost-effective captioning services, NCI will use prerecorded production methods and establish funding partnerships with broadcasters to share the cost of captioning to make television accessible to people who are deaf or hard of hearing.

*Products:* This project will increase the availability of syndicated television programs for people who are deaf or hard of hearing. Approximately 217 hours of syndicated programming will be captioned each year of the project.

*Grant Number:* H327U990018

### **Closed Captioned Children's Television - One**

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*Ending Date:* 9/30/02

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*Purpose:* The National Captioning Institute (NCI), in collaboration with six major producers and broadcasters of children's television programs, will caption a variety of children's programs.

*Method:* NCI will work with various companies producing television programs for children to create a mix of captioned shows intended to meet the diverse educational, cultural, and entertainment interests of children. The programs to be made accessible to children who are deaf or hard of hearing range from classic children's shows to serial favorites and cartoons.

*Products:* This project will increase the availability of closed-captioned programming for children who are deaf or hard of hearing. These captioned children's programs will add to the programs available to support the application of captioned TV in reading and literacy education.

*Grant Number:* H327U990019

### **Closed Captioning of Children's Programs**

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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

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*Purpose:* CaptionMax, Inc. will provide quality off-line "pop-on" style captioning for popular children's programs shown on commercial and public broadcast and cable networks, so that children who are deaf or hard of hearing will have access to these programs.

*Method:* The project will caption two popular and non-commercial programs on The Learning Channel, aimed at children ages 4-8. The aim is to allow the children to gain the ability to read the captions along with the action on the screen to reinforce the development of their language skills. Closed-captioning will be provided for 92 commercial-free, half-hour programs each year, enabling programs in The Learning Channel's "Ready, Set, Learn" time block to be accessible to deaf and hard-of-hearing children and their families.

*Products:* Based on The Learning Channel's level of 80 million subscribers, closed captioning of the two shows will make them available to 8 million deaf and hard-of-hearing individuals and 9.6 million viewers who use English as a second language. To make sure that the target audience is reached, Discovery Communications, their existing advertising/promotional department, and CaptionMax will market the programs captioned through this project.

*Grant Number:* H327U990020

### **Closed Captioning of Syndicated Television Programming**

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*Ending Date:* 9/30/02

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*Purpose:* CaptionMax, Inc., will provide quality off-line, "pop-on" style captioning for popular, previously broadcast syndicated television programming.

*Method:* Working with The Arts and Entertainment Network, CaptionMax will caption 150 hour-long episodes of television programs enjoying lasting popularity.

*Products:* By captioning these syndicated television programs, this project will make a variety of never-before captioned programs accessible to the large deaf and hard-of-hearing population, which will enable them to

directly experience an important part of community life. In addition, by close-captioning these programs, the 30 million Americans for whom English is a second language can use this as a means of improving their language skills, while also benefiting from the subject matter offered.

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*Grant Number:* H327U990022

### **Closed Captioned National News Programming**

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*Beginning Date:* 10/01/99  
*Ending Date:* 9/30/02

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*Purpose:* Media Captioning Services will provide stenographic realtime and live-display captioning services on CNN's national news programming.

*Method:* Each year of the project, 520 hours of CNN's national news programming will be captioned, including in-depth news coverage, live breaking news, and specialized daily reports on business, finance, medicine, and science.

*Products:* Through this project, deaf and hard-of-hearing viewers will be able to keep well-informed via CNN's programming throughout the critical time periods of 5-6 and 10-11 in the evening.

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# 84.327X

## Research Institute on Technology for Early Intervention

*Grant Number:* H327X010003

### **Research Institute on the Use of Technology in Early Intervention**

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*Beginning Date:* 1/01/02  
*Ending Date:* 12/31/06

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*Purpose:* The complexity of issues surrounding the use of assistive technology (AT) to support the development of infants and toddlers with disabilities is the focus of a comprehensive and integrated five-year program of research and dissemination that has a projected result of impacting AT use and the practices of early intervention service providers and families. AT devices/services have the potential for promoting children's opportunities to learn from activities in their homes and in community settings where they and their families spend time. As such, AT, whether low- or high-tech, is a tool that can be successfully used by families to increase their children's learning opportunities.

*Method:* The Institute's research program is guided by a conceptual model that views families at the center of their children's learning and development. Families play a key role in mediating "mismatches" between their children's abilities and the social and physical demands of environmental settings. AT devices/services can be meaningful mediators to the extent that families are informed about, and have easy access to, AT resources. Other factors that may impact AT knowledge and access include policy, community resources and financing, and the perceptions and knowledge about AT held by early intervention service providers and families. These factors, and their interrelationships, comprise the five major areas of the research program: 1) AT use; 2) policy and resources; 3) decision making practices; 4) training and support; and 5) dissemination. A comprehensive program of research will be implemented in each of these areas in order to gain a broad-based view of AT within early intervention programs across the country. More detailed and focused studies will be implemented in two communities in each of a specially selected sample of 12 states (total of 24 communities). The Institute is a collaboration between two universities, Thomas Jefferson University and Arizona State University, which provide the Institute with linked sites in the eastern and western regions of the country.

*Products:* Technology is a major component of the way in which the Institute's objectives will be accomplished. A World Wide Web site is a central feature and will be used for data collection, training and information dissemination, and other functions. Interviews will be computer-assisted so that results may be easily tabulated and analyzed. Teleconferencing, email, listservs, and other traditional modes of communication will be used to promote collaboration among Institute participants.

# 84.327Z

## Center to Support Technology Innovation for Students with Disabilities

*Grant Number:* H327Z010003

### National Technology Innovation Center

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*Beginning Date:* 10/01/01  
*Ending Date:* 9/30/06

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*Purpose:* The American Institutes for Research (AIR), in partnership with the University of Delaware, will create a national center to support technology innovation for students with disabilities. The Center will develop a World Wide Web site that will disseminate information related to the Center, conduct surveys, enable users to search a database of special education resources, and provide password-protected access to discussion forums and training materials that the Center will develop.

*Method:* The University of Delaware's role will be to design and develop the Website. The project will use the Website to disseminate research syntheses and to provide access to reports and documents that can be printed on demand over the Internet. In order to provide users with quick access to the information they need, the project will enter these materials into a searchable database that users will be able to query. The project will use the Website to administer surveys to collect and analyze information and opinions needed to support the work of the Center and its partners. The Website will also announce the Center's annual technology conference. AIR is enlisting the support of several partners including: 1) corporate partners: University of Kentucky, University of Delaware, and SUNY - Buffalo; 2) affiliated partners: Johns Hopkins University, Michigan State University, and University of Utah; and 3) strategic partners: The Council for Exceptional Children, National Association of State Directors of Special Education, and PACER. Some of the partners will conduct research syntheses and other partners will create videos and training materials.

*Products:* This project will design and develop a Website, videos, and training materials to support technology innovation for students with disabilities. Teachers will be able to log on to the Website and complete interactive tutorials that teach and demonstrate how to use the products of the Center. Through the Website, users will obtain access to videos and multimedia training materials that use audio, graphics, and animations to illustrate and disseminate findings of the Center. The Website will also provide online access to software applications that are being used to diagnose, prescribe, and deliver online resources that can help students with disabilities.

## Contracts

*Contract Number:* ED99PO4642

### **Individualized Career Planning and Preparation System**

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*Purpose:* Phase II of this Small Business Innovation Research project will develop a fully functional Web-based planning and communications tool that will enable students with disabilities to direct the creation of their transition plans.

*Method:* Phase I established the feasibility and desirability of adapting an existing Web-based project management tool to meet the information needs of consumers (students with disabilities and their parents/guardians) and educational staff. Phase II will work to: 1) provide timely linkages between students with disabilities and their parents/guardians to community agencies that provide transition services and/or adult services; 2) expedite delivery of transition services, communications among service providers, and movement from one transition service to another related transition service; 3) inform students with disabilities, their parents/guardians, and teachers about available community resources during transition planning; 4) inform teachers and other school personnel about transition planning best practices; and 5) enable short-term resource planning and long-term transition services impact analysis.

*Products:* Phase II will result in a completed and piloted Individualized Career Planning and Preparation System (ICPPS) which students with disabilities can use to create transition plans that reflect their personal needs, goals, and dreams. The ICPPS will meet state educational agency and local school district requirements for data security and confidentiality, incorporate a high degree of input from students with disabilities and their parents, and provide a complete list of the services available from the major service providers of a service delivery region.

*Contract Number:* ED99PO4649

### **Development of Internet-Based Situational Evaluation Resource Tool (SERT) for Students with Learning Disabilities**

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*Purpose:* In this Phase II Small Business Innovation Research project, CYBER Learning Corporation will develop and field test a functional prototype of the Situational Evaluation Resource Tool (SERT) designed in Phase I. SERT will provide a systematic process for the use of validated templates to determine which instructional media will meet the special needs of students with learning disabilities and support the requirements of families and professionals in rehabilitation and special education.

*Method:* The goal of Phase II is to meet the needs of school districts, students, their parents, and involved educators in using Internet instructional materials to improve learning for K-12 students with learning disabilities. Proof of concept for this project will be conducted with teachers whose classrooms include students with learning disabilities. The testing site will be a large urban school district. The Situational Evaluation Resource Tool will assist in planning for the acquisition and re-purposing of Internet instructional technology and media. It is anticipated that SERT would be connected to a database, accessible through an Internet site.

*Products:* Phase II of the project will apply this software application to the review and evaluation of instructional media, focusing on electronic networks and multimedia. The results would lead to the development of additional applications for individuals with disabilities, using a validated software approach.

*Contract Number:* ED99PO4884

**Schedule Assistant: A Portable Visual/Audio Prompting System for Enhancing Independence and Self-Determination in Personal Scheduling and Time Management for Individuals with Mental Retardation**

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*Purpose:* Portable computer technology offers promising new approaches to reducing dependence on others for individuals with mental retardation. Phase I of this Small Business Innovation Research project investigated the utility of Schedule Assistant--a Windows CE-based portable schedule prompting system designed to increase independence and self-determination in time management for individuals with mental retardation. Phase II will build on the successful Phase I results to: 1) complete the Schedule Assistant prompting system, 2) build a companion desktop software utility to help set up and manage multiple Schedule Assistant schedules, and 3) perform expanded field testing of the system to evaluate its applicability for a wide range of activities of daily living and levels of disability.

*Method:* During Phase I the system requirements were identified and a "proof-of concept" prototype of the Schedule Assistant system was developed and tested. The results of the pilot study demonstrated strong support for the contention that such a device can effectively enhance independence for adults with mental retardation in personal scheduling and time management. Use of the Schedule Assistant prototype resulted in statistically significant improvements in schedule accuracy and increased independence when compared to a traditional scheduling approach for 12 subjects when performing a scheduled series of vocational and independent living tasks.

*Products:* Phase II will develop the full Schedule Assistant system for use on a variety of available Palmtop and handheld personal computers. By capitalizing on commercially produced portable PCs, Schedule Assistant will provide a much more cost-effective approach to providing portable independent living aids, because a single hardware unit will be able to operate a variety of independence applications built specifically for the Windows CE computer platform.

*Contract Number:* ED00CO0065

### **Project Child-to-Child -- A Project to Assist Children in Classrooms to Communicate with Their Disabled Peers**

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*Purpose:* This Phase II Small Business Innovation Research project will develop and determine the feasibility of state-of-the-art materials that can be used by children in the classroom to assist them to comfortably and successfully communicate with their classmates who have disabilities. The materials will incorporate research-based content and innovative instructional design for children.

*Method:* During Phase I, one mediated unit was developed and evaluated to determine its feasibility and use with young children in classroom settings. Phase II will build on the development and field-testing done in Phase I and will result in a series of mediated units containing CD-ROM, video, print materials, discussion guides, and activity kits for use in classrooms by children and their teachers.

*Products:* Six mediated units with videotapes, CD-ROM, print materials, follow-up activity kits for children and discussion guides for teachers will be developed for use by children in K-4th grade. The units will be field tested to determine their effects on communication interactions between nondisabled children and their disabled peers, and then revised. The potential commercial application is the placement of a set of these materials in each classroom in the country that has a child with disabilities. Once the sets are in school classrooms, children without disabilities will team to communicate comfortably and successfully with their classmates who are disabled, thus enabling learning, interactions, and friendships between disabled and nondisabled children to grow and flourish.

*Contract Number:* ED00CO0070

### **On-line Delivery of a Blended Arithmetic Curriculum for Special Education Students**

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**Purpose:** An online blended arithmetic curriculum called "Count Me Smart," encompassing both the constructivist methodology (where students discover their own understanding of the underlying principles of math) and back-to-basic methodology (where students learn basic facts and computational skills), will be developed and implemented to teach addition, subtraction, multiplication, and division in this Phase II Small Business Innovation Research project. Each "Count Me Smart" lesson consists of a constructivist conceptual lesson plan; a back-to-basics fluency-building worksheet that students complete independently at their seats or at home; and an online computer "game" that builds conceptual understanding and fact-retrieval fluency.

**Method:** Previous studies determined, and Phase I confirmed, that "Count Me Smart" helps special education students learn and perform addition well. In Phase II, "Count Me Smart" will be tested in three Cleveland Empowerment Zone elementary schools, grades 2-4. Phase II will further prototype, implement, and test the technology as applied to subtraction, multiplication, and division, and will address how to make the technology accessible and easy to use for young students and their teachers. Phase II will address the inclusion of special education students in regular classrooms and the integration of "Count Me Smart" in a practical way so that teachers fully embrace the technology.

**Products:** A successful Phase II will produce a sophisticated, simple-to-use, and inexpensive technology that engages special education students to learn math skills and is ready to market commercially. Because "Count Me Smart" is online and automated, it can be delivered in a cost-effective way to a wide range of customers.

*Contract Number:* ED00CO0076

### **Music Touch: Adaptive Technology for Teaching Music Braille and Musical Concepts**

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**Purpose:** This Phase II Small Business Innovation Research project will develop and organize a comprehensive, multimedia curriculum for teaching music braille. The system will permit teachers with little or no knowledge of music braille to instruct students in its use. Sighted teachers see and hear material to be taught, while blind students feel and hear the same material. The sound becomes the common denominator for communicating. Teachers use what they know (print notation and musical concepts) to teach what they and their students do not yet know--the expression of these concepts in music braille.

**Method:** Hardware and software components will be built on the Phase I foundation. Curriculum materials will be published in print and braille. Multimedia content will be presented on one or more touch-sensitive hardware devices via newly developed software functions.

**Products:** The project will result in a multimedia teaching system for music braille, which can be marketed to schools, training centers, and private teachers who serve blind musicians.

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Contract Number: ED00CO0077

**Disabled Teen E-Zine**

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**Purpose:** This Phase II Small Business Innovation Research project will hire teens with disabilities to create a disabled teen e-zine on the Internet. The e-zine will enable the disabled teens to develop an online community to offer support, education, and entertainment to one another.

**Method:** The target population of this proposal is disabled teenagers from the ages of 14 to 19 years old. The content and themes of the e-zine will be determined by a staff of 15 disabled teenagers. They will also be responsible for hosting the associated chat room and for interfacing with the Web designer to develop a fully accessible e-zine format. Marketing and sales staff will seek out and secure advertisers for the e-zine, thereby ensuring salaries and continued publication. A project manager and a Web designer will be available to consult with the staff to assist them in determining appropriate layouts of the e-zine, timely articles, and interesting columns.

**Products:** This project will result in an increased presence on the Internet by teens with disabilities. It is anticipated that this e-zine will meet with great enthusiasm among disabled teens and parent groups, with a subscription rate up to a thousand by the end of the second year. Commercial applications of this project include increased business activity on the Web that would offer more job opportunities to people with disabilities who might otherwise be unable to work.

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Contract Number: ED00CO0664

**CD-ROM of Visually Represented Songs for Young Deaf Children**

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**Purpose:** Music is an important part of social development for young children and has proven to contribute to mathematic, linguistic, and motor development. Deaf children are not privy to the nursery rhymes and songs that hearing children learn as a part of American culture. This Phase II Small Business Innovation Research project will develop three CD-ROMs for young deaf children, each containing a well-known song that has multiple verses.

**Method:** The songs chosen will use techniques that foster early reading and linguistic skills (e.g., cumulative story, repeated phrases, consecutive events). The story/concept, volume, notes, and rhythm of the songs will be

depicted through graphic representations of each of these aspects, and through analysis and coordination with each other. Text from the songs will follow graphic changes. The child will have the option of viewing video-clips of the song signed in English word order or in an American Sign Language (ASL) version with explanation. An interpreter dressed as Paws, the signing dog (a lead character for other preschool CD-ROM materials), will be filmed for this purpose.

*Products:* Phase II of this project will result in the complete development of three CD-ROMs that impart the story/concept, volume, notes, and rhythm of traditional, early childhood songs to deaf children, along with ASL translations and word-for-word depictions synchronized to the music. Each CD-ROM will contain a song that has multiple verses and reinforces early reading and linguistic skills. Advertising and distribution arrangements, will be established at the conclusion of Phase II.

*Contract Number:* ED01CO0031

### **To Continue the Operation of the Family Center on Technology and Disability**

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*Beginning Date:* 9/27/01

*Ending Date:* 9/26/03

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*Purpose:* The Academy of Educational Development (AED) will operate the Family Center on Technology and Disability (FCTD) to assist other projects, centers, and organizations to provide services related to technology to parents and families of children with disabilities.

*Method:* The Center's responsibilities are to: 1) maintain, expand, and utilize the broad-based network established since 1998; 2) collect, develop, disseminate, and support the use of materials and the database established by the FCTD; and 3) participate in meetings, conferences, and events, to promote the Center and the use of technology nationwide. AED has assembled partner organizations, such as the Alliance for Technology Access (ATA), the Parent Advocacy Coalition for Educational Rights (PACER), the Center for Assistive Technology and Environmental Access (CATEA) and InfoUse, to continue the commitment to and understanding of the world of disability issues, research to practice, and the challenges faced by families as they struggle to find the information and services they need to support their children. This partnership will bring understanding and experience to the task of expanding and enhancing the FCTD network membership and services.

*Products:* The existing group of participating organizations will be transformed into a robust knowledge network.

Contract Number: ED01PO3515

## **Mouse-Like Interface for the Hand/Arm Disabled Individual: Head and Eye Tracking System**

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*Beginning Date:* 9/1/01  
*Ending Date:* 2/28/02

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*Purpose:* Many types of muscular disorders preclude the effective use of a computer mouse, severely limiting access to most computer applications. While arm and hand motion may be limited, head and neck motion might be fully functional. To aid those with restricted arm and hand movement, this project proposes a non-intrusive head tracking method for cursor control, coupled with eye blink recognition to emulate mouse clicking. This project is a Phase I Small Business Innovation Research (SBIR) project focusing on the development of technology for access and success for students and adults with disabilities in education and the workplace.

*Method:* Various head motions would initiate computer programs and emulate mouse motions. Eye blinking would emulate a mouse click, and also be used to change the general output of head motions.

*Products:* The Phase I effort will result in a feasibility demonstration. By the end of Phase II, Cybernet will have developed a relatively inexpensive pre-production prototype that will be ready for the commercial market.

Contract Number: ED01PO3727

## **TalkTiles: A Multi-Sensory Language Development Tool and Communication Aid**

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*Beginning Date:* 9/1/01  
*Ending Date:* 2/28/02

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*Purpose:* TalkTiles is a Phase I Small Business Innovation Research (SBIR) project focusing on the development of technology to provide students with disabilities improved access to educational opportunities. The TalkTiles project will develop a device that serves as a language development tool for children with speech and language-related disabilities and preliterate children.

*Method:* Through manipulation of electronically enhanced wooden letter tiles, children will experience visual, auditory, and kinesthetic representations of letters and words. Phase I objectives include: 1) configuring the speech synthesis hardware to ensure compatibility with the device design; 2) testing the intelligibility of the proposed speech synthesis module used in the device; 3) field testing the speech synthesis module to determine the appeal of synthesized voices to children; 4) designing and building a prototype of the device; and 5) field testing the prototype with a sample of 20 children with speech and language disabilities. This tactile context for language development addresses the concept that young children connect most strongly with their world through touch.

*Products:* Phase I will result in the development and pilot study of a prototype for the TalkTiles device and a design for its evaluation in the Phase II study. Successful completion of Phase I objectives will lead to a fully developed device in Phase II, which will involve extensive evaluations of the product to advise its final design and marketing opportunities. Phase II will result in the development of several prototypes of various alternative designs, and the presentation of the device to speech and language pathologists, assistive device manufacturers, and toy companies for distribution opportunities.

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*Contract Number:* ED01PO3736

### **On-Line Instructional Tools for Teaching Mathematical Problem Solving to Learning-Disabled Students**

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*Beginning Date:* 9/17/01  
*Ending Date:* 3/15/02

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*Purpose:* Learnimation proposes the development of an effective educational design model for Web-based multimedia tools that teach mathematical problem-solving skills to middle school students with learning disabilities. The approach is based upon proven off-line instructional strategies for LD students designed to take advantage of cognitive processes, metacognitive activities, and affective factors in learning. The learning tools will be interactive animated word problems based on real-world scenarios that teach problem-solving strategy as well as specific mathematical skills.

*Method:* In Phase I, the project will: 1) complete instructional design specifications for a browser-based multimedia prototype by effectively translating validated offline learning techniques for children with learning disabilities into the online medium; 2) build a functional application prototype based on those specifications; and 3) assess the validity of the instructional design model and refine it through iterative field-testing in two special education classrooms in New York State.

*Products:* The validated instructional design prototype developed in Phase I will serve as the foundation for a Web-based educational tool that builds problem-solving strategy awareness and offers practice in the application of those strategies in real-world scenarios for students with learning disabilities. With this validated foundation, Phase II will construct the first commercial tool, which will include a series of remediation and simulation scenarios for instruction in high-order processing and an environment that increases a student's confidence in the successful effects of effort, concentration, and persistence. Together Phases I and II will result in the development of an effective learning tool that can be delivered efficiently and inexpensively to any computer with Internet access.

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Contract Number: ED01PO3742

**Home Assessment and Modification as an Early Intervention Strategy**

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 Ending Date: 3/15/02

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*Purpose:* This project will develop a new and innovative home assessment protocol that will enable specialists to provide a full range of home modifications, including assistive technologies and universally designed environmental interventions, to underserved families of preschool and grade school-aged children nationwide. The development of the Children's Home Assessment and Modifications Protocol (CHAMP) and demonstration of its feasibility will be significant steps toward expanding the capacity of experts to provide individualized modifications at reasonable costs even when on-site assessments cannot be conducted.

*Method:* Unlike existing assessment instruments, the planned protocol will provide comprehensive information about the home environment and the housing needs of children. It will enable specialists to diagnose the appropriateness of the home and to identify, design, and specify appropriate modifications regardless of the complexity of the situation or the extent of the modifications needed or desired. Local therapists, case managers, and other care providers will be able to easily implement CHAMP on-site. The proposed modifications subsequently can be installed or constructed by local contractors, handymen/women, or family members.

*Products:* When Phases II and III are completed, the commercialization of CHAMP will ensure that home modification services will be available to children with disabilities nationwide.

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Contract Number: ED01PO3764

**Cursor Control Camera Headset with Voice Recognition Capabilities**

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Project Director: Kirven, P. Douglas  
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Beginning Date: 9/01/01  
 Ending Date: 2/28/02

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*Purpose:* Many people with motor skill impairments are unable to operate a PC keyboard and mouse proficiently. Substitutes for the keyboard and mouse include switches and levers adapted to operate via foot, arm, hand or head; facial gesture recognition; and voice recognition. Because of individual differences in physical mobility and annunciation of speech, the previously listed methods *may not be* physically suitable or may be cost prohibitive. Phase I of this Small Business Innovation Research project will develop a low-cost camera headset tracking device to track the motion of the head.

*Method:* The headset mouse will use a low cost CMOS style PC camera attached to an acoustic headset (allowing word recognition tailored to the degree of dependency of the user). The product will operate on inexpensive

PCs with processors with clock rates as low as 166 MHz. The headset design will be comfortable to wear and easy to use, will provide full control and smooth tracking of the cursor, and will be a low-cost alternative to fill the needs of persons with limited upper-limb motor skills.

*Products:* The anticipated result of Phase I of this Small Business Innovation Research project will be to have a working prototype that will allow smooth tracking and control of the cursor on a PC monitor by tracking objects in the field of view of the headset-mounted camera. This headset will be designed to be extremely user-friendly and will filter out minor involuntary head movements or tremors. Initially, users of the headset mouse will be persons with upper-limb debilities. Pre-school age and developmentally delayed children who lack the motor skills necessary to utilize a standard mouse will also benefit from this device. A large group of persons that may also benefit from the headset mouse would be public service personnel (i.e., emergency dispatch operators) who currently wear audio headsets. It is anticipated that with current technology, the headset mouse will sell for under \$100. The evolution of electronics, including microprocessor chip designs, will further reduce the cost of the product. During Phase II of the project, the headset will be further developed with the incorporation of multiple sets of pop-down menus, including a keyboard.

*Grant Number:* HS97022001

### **Center to Link Local School Districts with Information and Support on the Use of Technology, Educational Media, and Materials**

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*Ending Date:* 9/29/02

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*Purpose:* The goal of the Center to Link Local School Districts with Information and Support on the Use of Technology, Educational Media, and Materials (TMM) is to connect urban schools districts to available and relevant information and support on the effective use of TMM to: identify their needs and formulate plans based on those needs; access information and support in a coherent way that is closely aligned to those needs and plans; and develop the capacity to monitor, document, and evaluate the outcomes.

*Method:* The Center will first identify and assemble all of the entities that can provide relevant information and support to the school districts: a community-based resource group, a national resource bank of experts, and Dept. of Education-supported projects that provide training, technical assistance, materials, and resources. Second, the Center will create mechanisms and processes that identify the information and coordination with the needs of the sites.

*Products:* Center staff will: help design tools and procedures to carry out needs assessments and guide urban districts in forming action plans; utilize effective strategies to identify available and relevant information and support; create new information and support opportunities when needed; facilitate the development of a comprehensive plan to ensure that each district has access to necessary information and support, either within its district or in cross-district venues; create a blueprint to document all information and support activities, describe their impact, and share lessons learned with the wider field; guide districts to monitor and evaluate their own work and the work of the Center.

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