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ABSTRACT

This report discusses a 1990 video teleconference on communication aids and assistive devices for children with cognitive impairments, sponsored by the U.S. Department of Education's Office of Special Education Programs. The target audiences (parents, disabled individuals, local education agencies and organizations that serve or support special education students, employers, public television stations, and vendors) and structure of the teleconference are described, including the promotion, selection of technology products/vendors and the agenda. The results of evaluations by receiving sites of the print materials and teleconference elements such as panelists, presentations, and usefulness of information are provided. The report summarizes findings from the evaluation that indicate areas in which the teleconference could have been improved, including the desire for more product-specific video demonstrations. A final section of the report discusses conclusions and recommendations for future teleconference activities in the areas of promotion, scheduling, programs, video segments, and technology selection. Appendices include a draft script of the teleconference and the evaluation form that was sent to receiving sites. (CR)

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ED 404 809

**TELECONFERENCE ON  
COMMUNICATION AIDS FOR  
COGNITIVELY IMPAIRED CHILDREN**

**Grant No. H180A80002-89A**

***FINAL REPORT***

EC 305327

**EDUCATIONTURNKEYSYSTEMS<sup>i</sup><sub>nc</sub>**

256 NORTH WASHINGTON STREET  
FALLS CHURCH, VIRGINIA 22046

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**September 30, 1990**

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### Appendices:

- A: Draft Script
- B: Evaluation Form

## I. INTRODUCTION

In April 1989, Education TURNKEY Systems, Inc. (TURNKEY), in conjunction with the Central Educational Network (CEN) and WCET-TV in Cincinnati, conducted the first national video teleconference on assistive devices for handicapped students. Sponsored by the U. S. Department of Education's Office of Special Education Programs (OSEP), that teleconference showed clearly that video teleconferencing is an effective way to reach a large number of persons efficiently. The success of the 1989 teleconference led OSEP to fund a second teleconference for the spring of 1990. This teleconference focused on communication aids and assistive devices for cognitively impaired children. A third teleconference, this one funded by the U. S. Department of Education's National Institute on Disability and Rehabilitation Research (NIDRR) was conducted in June 1990.

The bulk of this report focuses on the May 1990 OSEP-sponsored video teleconference. In some instances, however, lessons learned from the later NIDRR-sponsored teleconference may be incorporated into the discussion.

This summary report describes: (a) the general nature of the teleconference and its participants; (b) the teleconference agenda; (c) the results of the evaluation of the teleconference; and (d) a discussion of recommendations for any future video teleconferences on similar topics.

## II. TELECONFERENCE STRUCTURE

The video teleconference was directed at a number of discrete target audiences, including:

- interested parents, disabled individuals, local education agencies, employers, and other interested organizations;
- state and local organizations that serve or support special education students or disabled individuals;
- public television stations, employers, and other institutions; and
- developers, vendors, and distributors of communication aids and assistive devices.

Public television stations, state networks, and individual school districts served as hosts for the teleconference, while selected distributors of assistive devices contributed to the teleconference agenda.

Broadcast between 1:30 pm and 4:00 pm (eastern daylight time) on May 10, 1990, the teleconference was transmitted over the WESTAR IV satellite (Channel 23, 4160 mhz).

### A. PROMOTION

Using the roster of nearly 150 public television stations that served as participating sites for the 1989 video teleconference, we promoted the 1990 teleconference activities. Each station was formally invited to participate and to host studio "wrap-around" activities. Such groups as the National Special Education Appliance (Apple Computer), the Council for Exceptional Children's state affiliates, state adaptive technology centers (e.g., FDLRS), and several state education agencies (e.g., California) were particularly active, not only promoting the teleconference but facilitating "wrap-around" activities at host sites. In addition, we sent project mailings to approximately 40 national associations with regional affiliates that have interest in the topic of assistive technology. These mailings were followed up by telephone contacts asking that information on the teleconference be disseminated to association constituents.

## B. TECHNOLOGY VENDORS

The selection of technology products/vendors to provide video segments grew from a simple to a complex process between 1989 and 1990.

For this year's teleconference, letters were sent to a data base of assistive technology vendors maintained by TURNKEY and CEC. In addition, invitations to nominate products were disseminated at the annual TAM Conference and such other technology conferences as FICC. Approximately 15 firms expressed interest in participating. Given the general coverage and topics in this conference, it was decided that two or three products from each of the vendors which constituted a "family" would be demonstrated rather than a single product. It was decided that firms would not be required to give discounts for group buys since many of the PTV stations indicated a lack of interest in this area. Six firms were finally selected.

The strong vendor interest in participating in the teleconference was apparently the result of increased sales generated by the 1989 teleconference. One firm reported a tenfold sales increase during the month following the 1989 teleconference. Another firm traced more than \$15,000 sales of a \$49.95 software package directly to the teleconference.

## C. AGENDA

The agenda for the 1990 video teleconference followed the general structure of the 1989 teleconference:

1. Introduction/Moderation: Dr. George Hall, Director of PBS's Office of New Technology Initiatives, provided a brief summary of the teleconference's purposes, introduced the panelists, and moderated the teleconference throughout.
2. Panel Discussion: Four nationally recognized experts addressed important teleconference issues:
  - Susan Elting, Director of the Center for Special Education Technology, discussed available information resources on communication aids for cognitively impaired children.
  - Carl Cameron, Project Director of the Center for Human Disabilities at George Mason University, described the types of

technologies used in transition programs and their typical funding sources.

- Rosie Bogo, President of Hartley Courseware, Inc., discussed the integration research findings on assistive technology in product design.
  - Charles Blaschke, TURNKEY's President, addressed prospective Federal and state funding sources for communication aids and software.
3. Panel Projections: Panelists provided their insights on the types of advances that might be expected over the next two years to improve the quality of education for cognitively impaired students.
  4. Question-and-Answer Period: A number of pertinent questions were called in from remote viewing sites.
  5. Technology Demonstrations: Six different technology products were demonstrated in video segments. In each segment, a member of the teleconference panel and a representative of the product's distributor examined important features of the product.

Although a draft script was developed for the teleconference (see Appendix A), it was not rigidly adhered to. Rather, it was used primarily as a general guide and to establish program timing. In this way, the spontaneity of a live broadcast was maintained (although some of the components, notably the product video presentations, were pre-taped).



### III. EVALUATION

As part of the print materials sent to each of the teleconference receiving sites, an evaluation form was included. This form, shown in Appendix B, collected data on participant perceptions of the various elements of the teleconference presentation on a scale ranging from one (poor) to five (excellent). Below we present the results of this evaluation.

#### A. PRINT MATERIALS

As indicated above, a considerable amount of print material was sent to each participating site prior to the teleconference. The materials included:

- summaries of the 1989 OSEP research symposium prepared by the Center for Special Education Technology at CEC;
- funding and related resources prepared by CEC, NARIC, NICHCY, and TURNKEY; and
- vendor brochures.

These materials were well received by teleconference participants, with 98 percent of respondents rating their usefulness at three, four, or five -- 80 percent rated them at four or five. In general, we may conclude that the nature and volume of print materials accompanying the teleconference were appropriate.

It was reported, in a small number of cases, that the print materials failed to reach the host sites in time for reproduction and distribution to participants. Future teleconferences should take note of this shortcoming and, perhaps, allow greater time to ship materials as well as conduct telephone follow-up to ensure that the materials have been received in a timely manner.

#### B. TELECONFERENCE ELEMENTS

The teleconference evaluation called for participants to rate various aspects of the teleconference. Below we summarize these responses.

## 1. PANELISTS

The four experts who appeared on the teleconference panel -- Charles Blaschke, Rosie Bogo, Carl Cameron, and Susan Elting -- made individual presentations on selected topics and participated in a spirited panel discussion. These panelists were extremely well received, with more than 90 percent of the evaluation respondents rating them three, four, or five (55 percent rated them four or five). No respondents gave the panelists a poor (i.e., one) rating.

## 2. PRODUCT VIDEO SEGMENTS

The individual video presentations on selected technology products were the highest rated component of the teleconference. Ninety-four percent of the respondents gave the video presentations three, four, or five ratings; nearly 80 percent rated them four or five.

## 3. QUESTION-AND-ANSWER SESSION

Incorporated into the teleconference was a live, telephone question-and-answer session which allowed participants from around the country to raise issues with the panel of experts. This was the least well-received component of the teleconference. Although more than 63 percent of the respondents gave it a three, four, or five, only about 26 percent rated it four or five.

This response suggests that future teleconferences should either eliminate the question-and-answer session entirely or modify it so that it maintains greater relevance to most of the viewing audience. While the live aspects of the questions gave the teleconference a certain attractive spontaneity, it might be more useful to use screened and preselected questions that track the teleconference objectives more closely.

## 4. PRESENTATION CLARITY

More than 94 percent of the respondents gave the teleconference presentations average or better ratings for clarity, with 55 percent rating the presentations four or five. No respondents gave a poor rating for presentation clarity.

## 5. LEVEL OF INFORMATION

Eighty-four percent of the respondents gave three, four, or five ratings to the teleconference with regard to the level of the information presented; 55 percent rated it four or five. While this rating is somewhat lower than other teleconference elements, it is still quite good considering the difficulty associated with presenting information at a level of detail satisfactory to tens of thousands of viewers coming from many different perspectives and levels of expertise.

## 6. USEFULNESS OF INFORMATION

About 84 percent of the respondents also rated the usefulness of the information average or better, with 59 percent giving it a four or five rating.

### C. OVERALL RATING

In general, the teleconference received very high marks from evaluation respondents.

When asked to rate the video teleconference for general satisfaction or helpfulness, approximately 85 percent rated the teleconference at average or better (three, four, or five), with 53 percent giving it a four or five. Similarly, more than 96 percent of the respondents found the teleconference "very valuable" or "somewhat valuable" (63 percent found it "very valuable").

For purposes of comparison, the following table shows the average rating for each of the teleconference elements:

<u>Element</u>	<u>Average Rating</u>
Print Materials	4.00
Panelists	3.55
Product Video Segments	4.12
Question-and-Answer Session	2.73
Presentation Clarity	3.63
Level of Information	3.47
Usefulness of Information	3.51

The product video segments and the print materials were the highest rated components, while the question-and-answer session was the lowest rated and the only component getting a sub-average rating.

#### D. OPEN-ENDED RESPONSES

Participants were given the opportunity, as part of the teleconference evaluation, to suggest: (1) areas in which the teleconference could have been improved; and (2) other technology-related topics which could be addressed by future teleconferences. Below we summarize the more salient responses.

##### 1. AREAS OF IMPROVEMENT

The most frequently cited area for potential improvement was the desire for more product-specific video demonstrations, with particular emphasis on demonstrations showing product use in real-world (e.g., in school) situations. Still others indicated that, while the number of product video presentations was adequate, this might have included more technical detail, as well as more footage of use with children. One respondent suggested that the likely dates of availability for future products should be mentioned clearly. At least one respondent indicated that, rather than having all product videos in the last half of the teleconference, we might improve the pacing and interest of participants by interspersing panel segments with the product video presentations.

A number of respondents said that the panel presentation was either too long in general or contained too much lecture and not enough interplay among members. Still another respondent believed that the panel was too staged and lacked spontaneity.

As indicated above, the question-and-answer session was the least well-received component of the teleconference. Paradoxically, a number of respondents to the evaluation wanted to see more of it. One respondent suggested obtaining questions in advance and integrating them into the teleconference agenda.

One respondent decried the heavy emphasis on physical disabilities, blind, and deaf, while another criticized the undue weight given to learning disabled and mentally retarded. It is important to strike a balance which will maintain the interest of the teleconference's target audience.

Two respondents -- both organizers of university-based receiving sites -- suggested that the date of the teleconference at the end of the semester made it difficult to attract as large a crowd as might be possible if it were held in mid-April.

Minor comments were recorded with regard to the signer, with one respondent indicating a strong belief that the entire teleconference should be captioned.

A small number of sites (predominantly in the northeast) experienced poor reception for parts of the teleconference. We believe that this can be traced to severe weather in some parts of the country on the afternoon of the teleconference.

## 2. FUTURE TELECONFERENCES

A number of respondents suggested that the teleconference covered such a broad spectrum of topics and products that the viewer could not get enough detail on the specific products of interest to them. They would like to see individual teleconferences dedicated to specific handicapping conditions, highlighting successful and unsuccessful implementation experiences.

Other areas which received frequent mention as possible future teleconference topics are funding of assistive devices for preschool-aged children. A number of other areas were mentioned, including:

- environmental controls for severely handicapped;
- training models;
- transportation alternatives;
- non-verbal students; and
- devices aimed at post-secondary education.

While some of these suggestions have merit, not all fall easily within the OSEP mandate.

#### IV. CONCLUSIONS AND RECOMMENDATIONS

Drawing upon results of the evaluation as well as observations during the course of the teleconferences (both 1989 and 1990), the project team has arrived at a number of important conclusions and recommendations for future teleconference activities.

##### A. PROMOTION

Promotional activities are critical to the success of any national video teleconference targeted at educators. Fortunately, a number of very useful promotional channels are available.

Although local public television agencies serving education are the primary distribution mechanism for a teleconference, it is important to use a grassroots promotional approach, involving educational associations and their constituents, as well as assistive device centers. It is noteworthy that a number of public television stations have issued a standing request that we inform them immediately of any future teleconferences and ensure their involvement.

Promotional material about any teleconference should be as specific as possible regarding the target audience, topics to be addressed, and related information. During the 1989 teleconference, we included a variety of technology families to demonstrate applications for a variety of exceptionalities; hence, the target audience was rather general and the presentation was focused on low-level users or individuals with minimal knowledge about the technology. As expected, we had very few complaints about irrelevant material. During the 1990 teleconference, we attempted to focus on specific types of technology for use with cognitively impaired children. Although the promotional material clearly delineated the topics and expected target audience, some participants felt that the topics were not germane to their specific areas of responsibility or that the level of discussion was too technical. It was clear that many of these individuals expected the 1990 teleconference to be as general as the earlier one.

## B. SCHEDULING

One of the most difficult and time consuming activities is scheduling the video teleconference. Given the funding cycle of the teleconferences and the amount of promotional and planned time needed, the scheduling of the teleconferences in late spring were the only options. It generally takes a minimum of five to six months to develop and disseminate the promotional materials, develop the program, select panelists, and conduct all other activities prior to the actual teleconference date. Even with such a lead time, many PTV stations cannot schedule a teleconference.

The number of participants who viewed the first teleconference -- in April 1989 -- exceeded those attending the 1990 teleconference largely because many special education teachers and staff were preoccupied with evaluations and the development of IEPs in May 1990, even though the conference was only 13 days later than the previous April conference. The ideal times for conducting video teleconferences, whose target audiences are school instructional staff, appear to be August (in conjunction with in-service training), October and November prior to Thanksgiving, and January through April.

## C. PROGRAMS

A number of aspects of the teleconference program itself must be carefully considered.

The topics to be addressed by the teleconference should be timely. During the 1989 teleconference, the Tech Act was in the process of implementation, with regulations being published during the week of the teleconference. By incorporating Tech Act topics and having the two Senators who sponsored the legislation participate, the teleconference became very timely. In terms of national legislation, the May 1990 teleconference included in this project was not tied to any specific legislation or other activity. A subsequent June 1990 teleconference, supported by NIDRR and conducted by TURNKEY, focused on technology to enhance employability and took place just prior to the passage of the ADA, making it very topical and timely.

The panelists who participate in the programs must know their topics in great detail. Knowledgeable panelists are much more relaxed and do not have to rely on scripts which tend to be distracting. Without exception, the panelists who participated in the two teleconferences were extremely knowledgeable about the topics they addressed.

The format for the question-and-answer period was changed between the 1989 and 1990 teleconferences. This year, the number of questions and answers was increased and they were interspersed within other program elements. While the live viewing audience at WCET-TV felt that this formal format was more successful than the former, as noted above, responses from viewing sites indicated that, generally, the question-and-answer period was the least helpful part of the teleconference. Involving, as they do, considerable time and effort on the part of teleconference staff (e.g., telephone banks, operators), question-and-answer sessions for future teleconferences might well be handled differently -- perhaps by responding to pre-submitted (not live) questions from the field.

#### D. VIDEO SEGMENTS

The best received teleconference component was the the video segments on technology products. Feedback from across the country indicates that between 20 and 30 colleges and universities, as well as some school districts, are currently using the video segments in pre-service and in-service training programs for special education instructional staff. In addition, a number of large school districts (e.g., Fairfax County, Virginia; Atlanta, Georgia) periodically broadcast video segments through their school-wide cable systems for special education teachers to keep them abreast of new advances and developments.

Several producers of video tele-courses also are using segments of the tape. For example, Old Dominion University is conducting a video tele-course on supported employment for the disabled and will be using segments of different vendors' products to demonstrate how employment can be supported through the use of assistive technology. Whittle Communications and the TI-IN Network have requested permission to re-broadcast the teleconference.



The popularity of these components of the video teleconference suggests that the number or duration of the product video segments might be expanded in future teleconferences or that they might be integrated more completely into other teleconference components.

E. TECHNOLOGY SELECTION

Our experience with the teleconferences suggests that the following guidelines should be adhered to in the selection of technologies to demonstrate as part of video teleconferences:

1. A technology product should, in some way, fit with the general theme of the teleconference.
2. The products chosen should include a mix of high tech (usually high cost) products and low tech (lower cost) applications.
3. It is wise to include widely known products which can be adapted for the target population, as well as some less well-known products.
4. Teleconference costs can be reduced if participating technology vendors can provide an existing, broadcast quality videotape which demonstrates the product being used by actual consumers.
5. For project economies, it is best that participating vendors be willing to incur the costs of travel and incidental expenses necessary for participation.

A P P E N D I X A

Draft Script

FIRST DRAFT 3-15-90

**VIDEO TELECONFERENCE: COMMUNICATION AIDS  
AND SOFTWARE FOR COGNITIVELY-IMPAIRED STUDENTS**

Air: May 10, 1990 13:30 to 14:30 Eastern Time  
Taping: May 7 - May 9 (specific Schedule TBD)  
Running Time: 59 Minutes (Teleconference)  
Studio Set Area: Neutral backdrop setting/some devices  
Seating group for panel

Producers: Carl T. Cameron  
Jack Dominic

Director: Taylor Feltner

=====

Up from black

Music over video of students using devices  
(Video to be selected from available tape, April 27, 1989 segment and  
*Scientist at Work*, and preassembled) (1:00)  
Billboard over video (1:30)

"TELECONFERENCE ON COMMUNICATION AIDS AND  
SOFTWARE FOR COGNITIVELY-IMPAIRED STUDENTS"

Audio booth announcement

THE FOLLOWING "IN-SERVICE" PROGRAM CONTAINS INFORMATION FOR EDUCATION ADMINISTRATORS, TEACHERS, AND OTHER AGENCY PROFESSIONALS WHO WORK WITH COGNITIVELY-IMPAIRED STUDENTS. IT IS FUNDED, IN LARGE PART, BY THE U. S. DEPARTMENT OF EDUCATION/OFFICE OF SPECIAL EDUCATION PROGRAMS' PART G RESEARCH AND DEVELOPMENT PROGRAM, WHICH FOCUSES ON A WIDE RANGE OF SPECIAL EDUCATION TECHNOLOGIES. THE CONTENTS OF TODAY'S PROGRAM HAVE BEEN DEVELOPED BY EDUCATION TURNKEY SYSTEMS AND THE CENTRAL EDUCATIONAL NETWORK. THIS PRESENTATION WILL PROVIDE USEFUL AND OBJECTIVE INFORMATION ABOUT COMMUNICATION AIDS AND SOFTWARE FOR COGNITIVELY-IMPAIRED LEARNERS, PARTICULARLY THOSE IN PRESCHOOL, FAMILY LITERACY, AND TRANSITION PROGRAMS. THIS PROGRAM IS NOT SPONSORED BY THE FIRMS WHOSE REPRESENTATIVES WILL APPEAR AND WHOSE PRODUCTS WILL BE SHOWN -- NOR IS IT DESIGNED TO SELL (OR ENDORSE) THE SPECIFIC HARDWARE

AND SOFTWARE DEMONSTRATED. RATHER, ITS PURPOSE IS TO SHARE INFORMATION ABOUT THEIR POTENTIAL VALUE TO EDUCATORS AND OTHER PROFESSIONALS -- TO ASSIST THEM IN MAKING DECISIONS ON THE SELECTION AND USE OF COMMUNICATION AIDS AND SOFTWARE.

Fade music

WELCOME TO THE SECOND ANNUAL NATIONAL VIDEO TELECONFERENCE SERIES ON COMMUNICATION AIDS AND SOFTWARE FOR STUDENTS WITH DISABILITIES. MY NAME IS GEORGE HALL AND I AM THE DIRECTOR OF THE OFFICE OF NEW TECHNOLOGY INITIATIVES AT PBS. DURING THE NEXT TWO AND A HALF HOURS YOU WILL HAVE AN OPPORTUNITY TO:

- (1) LEARN ABOUT RECENT TRENDS AND CURRENT RESEARCH FINDINGS ON THE USE OF COMMUNICATION AIDS AND SOFTWARE FOR COGNITIVELY-IMPAIRED LEARNERS;
- (2) VIEW COMMUNICATION AIDS AND SOFTWARE PROGRAMS, MANY OF WHICH ARE NEW;  
AND
- (3) EXPLORE, WITH A PANEL OF EXPERTS, NEW FUNDING OPPORTUNITIES AND OTHER RESOURCES WHICH ARE IMPORTANT TO SUCCESSFUL USE OF THESE TECHNOLOGIES.

IN APRIL 1989, AN ESTIMATED 60,000 INDIVIDUALS IN MORE THAN 400 LOCATIONS VIEWED THE FIRST NATIONAL VIDEO TELECONFERENCE ON COMMUNICATION AIDS AND ASSISTIVE DEVICES. WHILE MOST EVALUATION REPORTS INDICATED THAT THE TELECONFERENCE WAS HIGHLY SUCCESSFUL -- DUE LARGELY TO ACTIVE PARTICIPATION AND WRAP-AROUND ACTIVITIES BY THE VIEWING AUDIENCE -- WE HAVE CHANGED THE FORMAT SOMEWHAT BASED ON VIEWER SUGGESTIONS, AS WILL BE NOTED LATER. WE ARE PLEASED TO LEARN THAT TWO SOFTWARE PUBLISHERS RECENTLY SPONSORED THEIR OWN VIDEO TELECONFERENCES TO ANNOUNCE NEW SOFTWARE PRODUCTS AND THAT PBS HAS SCHEDULED APPROXIMATELY 20 HOURS OF VIEWING TIME NEXT NOVEMBER TO PREVIEW MORE THAN ONE HUNDRED NON-VIDEO TECHNOLOGY PRODUCTS WHICH COULD BE USED BY STUDENTS AND TEACHERS, GENERALLY, AS PART OF ITS SAT SCREEN PROGRAM. WE ARE ALSO PLEASED TO ANNOUNCE THAT, ON JUNE 7, WE WILL BE CONDUCTING A VIDEO TELECONFERENCE SIMILAR TO THIS ONE, WITH A PRIMARY FOCUS ON ASSISTIVE TECHNOLOGY WHICH CAN BE USED TO ENHANCE JOB PREPARATION AND EMPLOYABILITY.

(Name of firms and devices shown over very brief video segment montage; Taylor to assemble)

ON THE SCREEN ARE THE NAMES OF THE DEVICES, AS WELL AS THE GROUPS, WHO ARE PARTICIPATING IN TODAY'S BROADCAST. MOST OF THESE ASSISTIVE AIDS AND SOFTWARE PROGRAMS WILL BE DESCRIBED IN MORE DETAIL LATER IN THE PROGRAM.

AS A PART OF THIS TELECONFERENCE, APPROXIMATELY ONE AND ONE-HALF HOURS OF VIDEO DEMONSTRATIONS OF SPECIFIC AIDS AND SOFTWARE WILL BE FED OUT FOR LIVE VIEWING -- OR FOR TAPING FOR SUBSEQUENT BROADCASTING BY LOCAL PTV STATIONS TO THE SCHOOLS AND OTHER AGENCIES THEY SERVE. WE BELIEVE THESE SEGMENTS WILL BE USEFUL TO SCHOOL AND OTHER AGENCY SUPPORT STAFF INVOLVED IN SELECTING APPROPRIATE AIDS AND SOFTWARE. LAST YEAR, MANY OF OUR VIEWERS IN THE TEACHER TRAINING COMMUNITY USED OUR SEGMENTS FOR PRE-SERVICE AND IN-SERVICE TRAINING. WE ENCOURAGE YOU TO ALSO DO THIS.

TO PROVIDE GREATER OPPORTUNITIES FOR LIVE QUESTIONS AND ANSWERS, WE HAVE EXTENDED THE TIME IMMEDIATELY FOLLOWING THE PANEL DISCUSSIONS; AND, AFTER A BRIEF BREAK, WE ARE ENCOURAGING VIEWERS TO CONTINUE CALLING WITH THEIR QUESTIONS, WHICH WILL BE ANSWERED BY PANELISTS AND OTHER EXPERTS WHILE THE PRE-RECORDED VIDEO SEGMENTS ARE BEING SHOWN. MOREOVER, BETWEEN SEGMENTS WE WILL ALSO REPORT TO YOU LIVE WITH ANSWERS TO THE QUESTIONS YOU HAVE RAISED MOST FREQUENTLY. THIS IS YOUR TELECONFERENCE, AND WE WISH TO INTERACT WITH YOU AS MUCH AS POSSIBLE.

MANY OF YOU ARE ALREADY GRAPPLING WITH PROBLEMS AND ISSUES RELATED TO THE SELECTION, TECHNICAL SUPPORT, TRAINING, AND FUNDING OF COMMUNICATION AIDS AND SOFTWARE, PARTICULARLY FOR SUCH PROGRAMS AS PRESCHOOL AND TRANSITION STUDENTS. WE ARE FORTUNATE TODAY TO HAVE A NUMBER OF EXPERIENCED PROFESSIONALS TO PROVIDE THEIR PERSPECTIVE.

SUSAN ELTING IS DIRECTOR OF THE CENTER FOR SPECIAL EDUCATION TECHNOLOGY, OPERATED BY THE COUNCIL FOR EXCEPTIONAL CHILDREN AND FUNDED BY THE OFFICE OF SPECIAL EDUCATION PROGRAMS OF THE U. S. DEPARTMENT OF EDUCATION. THE CENTER COMPILED SOME OF THE DATA BASES AND REPORTS SENT TO YOU EARLIER. SUSAN WILL BE HIGHLIGHTING SOME OF THOSE AND OTHER INFORMATION COMPILED FOR THIS TELECONFERENCE LATER ON.

CARL CAMERON IS THE PROJECT DIRECTOR OF THE CENTER FOR HUMAN DISABILITIES AT GEORGE MASON UNIVERSITY IN VIRGINIA. CARL CURRENTLY DIRECTS A TRANSITION PROGRAM FOR MENTALLY RETARDED STUDENTS AND FORMERLY DIRECTED THE MISSOURI LINC CENTER.

ROSIE BOGO IS THE PRESIDENT OF HARTLEY COURSEWARE, INC., WHICH IS ASSOCIATED WITH JOSTENS LEARNING CORPORATION. SHE DESIGNED THE FIRST PROGRAM FOR SPECIAL EDUCATION STUDENTS TO BE APPROVED BY THE NATIONAL DIFFUSION NETWORK, DEPARTMENT OF EDUCATION IN THE EARLY 1970 AND HAS WORKED CLOSELY OVER THE LAST TWO DECADES WITH THE SPECIAL EDUCATION COMMUNITY IN DESIGNING PROGRAMS FOR EARLY CHILDHOOD AND ADULTS WITH LEARNING DISABILITIES. YOU WILL HAVE AN OPPORTUNITY TO REVIEW SOME OF HARTLEY'S NEW PROGRAMS AFTER THE PANEL DISCUSSION.

AND LAST, CHARLES BLASCHKE IS THE PRESIDENT OF EDUCATION TURNKEY SYSTEMS, WHICH MONITORS TECHNOLOGY TRENDS IN SPECIAL EDUCATION. CHARLES WILL BE SHARING WITH US SOME RECENT SURVEY FINDINGS AS WELL AS INFORMATION ON NEW FUNDING SOURCES.

SUSAN ELTING, HOW MANY STUDENTS HAVE LEARNING DISABILITIES AND OTHER COGNITIVE IMPAIRMENTS?

(Susan could rely on the most recent Congressional Report indicating the growth of LD over the last decade to almost 50 percent. An important point is that only a small percentage of communication aids and assistive devices have been designed for these populations; most have been designed for use with the physically disabled, which is a relatively small proportion of children being served in special education programs.)

MODERATOR: ROSIE BOGO, AS A PARTICIPANT IN THE ANNUAL TECHNOLOGY SYMPOSIUM AND AS A SOFTWARE PUBLISHER/DEVELOPER, HOW EASY IS IT FOR A DEVELOPER TO INTEGRATE RESEARCH FINDINGS INTO PRODUCT DESIGN, AND WHAT MORE DO WE NEED TO KNOW FROM A RESEARCH PERSPECTIVE?

(Rosie should focus, initially, on early childhood research and design characteristics as well as what types of communication aids and/or built-in

hardware features (e.g., sound) are important. She could conclude with questions which she, as a designer/developer, has for which current research has little to say and invite comments from the viewing audience during the Q&A session.)

MODERATOR: CHARLES BLASCHKE, WHAT ARE THE MAJOR SPECIAL EDUCATION PROGRAMS FOR WHICH COMMUNICATION AIDS AND SOFTWARE PRODUCTS REPRESENT POTENTIAL SOLUTIONS FOR PROGRAM INVOLVEMENT?

(Charles will summarize the recent results of an SEA survey, reported in the Annual Report to Congress, which identified preschool, transition, and programs for the mentally retarded as major program improvement areas, other recent survey findings on the growth of these programs, and trends related to technology use in these programs. He will also identify some of the major reasons for technology use in these areas.)

MODERATOR: CARL CAMERON, WE HAVE NOT HEARD MUCH ABOUT TRANSITION PROGRAMS. BASED UPON YOUR EXPERIENCE AND RESEARCH, WHAT ARE THE MAJOR PROGRAM IMPROVEMENT AREAS FOR TRANSITION STUDENTS, AND WHAT TYPES OF TECHNOLOGY SOLUTIONS APPEAR TO WORK WELL WITH THE COGNITIVELY IMPAIRED?

(Carl should summarize the results of the SEA survey, as reported in the Annual Report to Congress, identify some of the programs and communication aids which appear to work well, referencing "snippets" from pre-recorded tapes, and referencing products which will be viewed later as segments.)

MODERATOR: CHARLES BLASCHKE, WHAT ARE THE FEDERAL AND STATE FUNDING PROSPECTS FOR PROGRAMS AND THE PURCHASE OF COMMUNICATION AIDS AND SOFTWARE FOR USE BY STUDENTS AND TEACHER IN THEM?

(Charles will summarize recent and proposed funding levels for major special education programs (e.g., EHA Part B, Preschool Incentive Grants (Section 619), and Adult Literacy). He will also identify relatively unknown funding sources and the types of program configurations they can support, including the Job Training Partnership Act, the new JOBS Program, Head Start programs

which are increasingly focusing on parent education, Chapter 1, and Chapter 2 programs, among others.)

MODERATOR: CARL, WHAT ARE SOME IMPORTANT FUNDING SOURCES FOR TRANSITION PROGRAMS AND SOFTWARE PURCHASES?

(Carl will identify and describe.)

MODERATOR: SUSAN ELTING, THE CENTER FOR SPECIAL EDUCATION TECHNOLOGY HAS PROBABLY COMPILED THE BEST DATA BASES OF RESOURCES AVAILABLE TO OUR VIEWERS RELATING TO COMMUNICATION AIDS AND SOFTWARE USED WITH COGNITIVELY-IMPAIRED STUDENTS. COULD YOU PLEASE IDENTIFY THESE RESOURCES, WHAT TYPES OF INFORMATION THEY PROVIDE, AND HOW OUR VIEWERS CAN CONTACT THEM?

(Susan should focus on state and local resources which are involved in relevant software evaluation activities, guides that have been developed and are available, and directories that are published by the Center.)

MODERATOR: CARL CAMERON, WHAT ARE SOME OTHER MAJOR NATIONAL INFORMATION RESOURCES?

(Carl should summarize existing data bases and on-line services which are more likely to be relevant for communication aids and software for cognitively impaired; he should also identify appropriate associations (e.g., ACLD, others).

MODERATOR: BEFORE WE GET INTO OUR QUESTION AND ANSWER PERIOD, I WONDER IF ANY OF THE PANELISTS WOULD LIKE TO SHARE THEIR THOUGHTS ON WHAT TYPES OF ADVANCES WE CAN EXPECT IN SOFTWARE AND HARDWARE OVER THE NEXT TWO YEARS TO IMPROVE THE QUALITY OF EDUCATION FOR LEARNING DISABLED STUDENTS AND OTHER GROUPS.

(The Panelists should share their thoughts in generic areas, referring to the products that will be included in the pre-recorded sessions. The topics and products are assigned as follows:

- Rosie Bogo: advances in hardware capabilities that reduce a need for peripheral communication aids, discussed in the context of how Project STAR and Brick-by-Brick build upon these existing and future capabilities.



- Carl Cameron: interactive video and multimedia, referring to MOBIUS' Creative Learning and Laureate Learning's products which will be viewed.
- Charles Blaschke: new input devices such as voice recognition, bar-code technology, and expanded keyboards, referring to Optimum Resource, Tiger Communications, and Unicorn Engineering products.

MODERATOR: CHARLES, I AM SURE THAT OUR DISCUSSIONS THUS FAR HAVE GENERATED SOME QUESTIONS FROM OUR VIEWING AUDIENCE. AT THIS TIME WE INVITE THESE QUESTIONS -- OR COMMENTS - FROM YOU. PLEASE CALL OUR TELEPHONE NUMBER: 513-651-4800.

(Charles will moderate the discussion.)

(At least two pre-planned questions should be on line; WCET project official will be responsible for screening of the questions.)

MODERATOR: WE ARE NOW APPROACHING A VERY IMPORTANT PART OF THIS NATIONWIDE IN-SERVICE TELECONFERENCE ON COMMUNICATION AIDS AND SOFTWARE PROGRAMS FOR COGNITIVELY-IMPAIRED STUDENTS. WE ARE GOING TO SHOW YOU A NUMBER OF VIDEO DEMONSTRATIONS OF SELECTED AIDS AND SOFTWARE. BUT FIRST, LET'S TAKE EXACTLY 10 MINUTES TO STRETCH OUR LEGS AND FLUFF OUR PILLOWS. THEN WE WILL RETURN WITH THE VIDEO DEMONSTRATIONS. INCIDENTALLY, BE SURE TO HAVE YOUR VIDEOTAPE RECORDERS ON AT EACH SITE SO THAT YOU WILL HAVE A WAY OF REVIEWING THE DEMONSTRATIONS AFTER THE SATELLITE FEED IS OVER TODAY.

(Break)

WELCOME BACK TO THIS SPECIAL NATIONWIDE TELECONFERENCE ON COMMUNICATION AIDS AND SOFTWARE FOR COGNITIVELY-IMPAIRED STUDENTS.

WE INDICATED BEFORE OUR BREAK THAT WE WOULD RETURN WITH A NUMBER OF VIDEO DEMONSTRATIONS OF COMMUNICATION AIDS AND SOFTWARE. WE WILL BEGIN THOSE IN A MINUTE. BUT FIRST, WE WANT TO REMIND YOU TO CONTINUE YOUR CALLS. THEY WILL BE ANSWERED LIVE AND THEN SUMMARIZED TO YOU BETWEEN SELECTED SEGMENTS. OUR FIRST PRODUCT IS \_\_\_\_\_

(Go to video pre-recorded video segments.)

STOP

START

MODERATOR: WE CERTAINLY HOPE THAT THE INFORMATION AND DEMONSTRATIONS WE HAVE FED YOU TODAY ON THIS SPECIAL NATIONWIDE TELECONFERENCE HAVE PROVIDED -- AND WILL CONTINUE TO PROVE -- HELPFUL TO YOU IN YOUR PROFESSIONAL WORK AND PLANNING.

BEFORE SAYING GOOD BYE FROM CINCINNATI, LET'S TAKE A LOOK AT THE NAMES OF THE PEOPLE AND ORGANIZATIONS THAT HAVE CONTRIBUTED TO THIS IN-SERVICE EFFORT. FOLLOWING THOSE NAMES WILL BE THE ADDITIONAL LIST OF INFORMATION RESOURCES PROMISED EARLIER BY CARL CAMERON. YOU MAY WANT TO MAKE SOME PEN OR PENCIL NOTES ABOUT THEM. SOME HAVE NOT BEEN INCLUDED IN THE HANDOUTS.

NOW, WE WANT TO THANK OUR CONTRIBUTORS -- AND TO THANK YOU FOR YOUR TIME AND PARTICIPATION. GOOD AFTERNOON.

(CLOSING CREDITS TO BLACK)

(See VIDEO PRESENTATIONS (Soft Feed), two pages from Script Revision \_\_) edit credits to match those listed below on this page.)

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A P P E N D I X B

Evaluation Form

**TELECONFERENCE EVALUATION**

**COMMUNICATION AIDS FOR COGNITIVELY IMPAIRED CHILDREN**  
 May 10, 1990

Organization: _____
Address: _____
Contact: _____ Telephone: (____) _____

1. What was the nature of your participation in the teleconference?

- a. attended session \_\_\_\_\_
- b. viewed independently \_\_\_\_\_
- c. other (specify) \_\_\_\_\_

2. Does your site have tape copies of the video teleconference and presentations? \_\_\_\_\_

	Excellent			Poor	
	5	4	3	2	1
3. Overall, to what degree was the video teleconference helpful or satisfying?	5	4	3	2	1
4. How useful were the print materials?	5	4	3	2	1
5. How worthwhile was the telephone Q&A portion of the program -- overall?	5	4	3	2	1
6. Please rate the following:					
a. Panelists	5	4	3	2	1
b. Product Video Segments	5	4	3	2	1
c. Clarity of Presentations	5	4	3	2	1
d. Level of Information	5	4	3	2	1
e. Usefulness of Information	5	4	3	2	1

6. Specifically, what are some ways this videoconference could have been improved? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. How valuable is videoteleconferencing to you as a way of learning new information?

Very Valuable \_\_\_\_\_  
Somewhat Valuable \_\_\_\_\_  
Not Very Valuable \_\_\_\_\_

9. What other technology-related topics would interest you if offered as a videoconference?

a. \_\_\_\_\_  
b. \_\_\_\_\_  
c. \_\_\_\_\_  
d. \_\_\_\_\_  
e. \_\_\_\_\_  
f. \_\_\_\_\_

10. Please use the remaining space for any additional comments.

BEST COPY AVAILABLE

\* \* \* \* \*

Please return this completed form to:

Mr. Blair Curry  
Education TURNKEY Systems, Inc.  
256 North Washington Street  
Falls Church, Virginia 22046



**U.S. DEPARTMENT OF EDUCATION**  
*Office of Educational Research and Improvement (OERI)*  
*Educational Resources Information Center (ERIC)*



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