


(COVER PAGE)

Project Information

The Real-time Educational Access Development (READ) Project

Project Title

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Project Director

Disability Resource Center

Requesting Department

\$20,430.00

Amount Requested Year 1

Amount Requested Year 2

Project Director's Signature

Proposal Endorsement Signatures

Department Head

Dean

Proposal Abstract (100-word maximum)

The READ Project proposes the acquisition of a technology tool that provides unprecedented real-time access to print material for students with disabilities. This handheld reader will increase independence and enhance the potential for class participation while fulfilling the mandates of the Americans with Disabilities Act to provide equal access to the classroom. The opportunity for immediate access to print material will enhance the everyday lives of students and promote better performance in the classroom. The READ project will facilitate improvement of student potential for postsecondary experiences and accommodation of diverse learning styles in a University setting.

Real-time Educational Access Development READ Project

I. Project Description

a. Nature of the Innovation

The purpose of the proposed two year project is to improve the capacity of the University of Georgia (UGA) to serve students with print disabilities through the use of new assistive technology, the Kurzweil Handheld Reader. It is widely noted that outcomes for students with disabilities post high school are not favorable. Recent data from the HEATH Clearinghouse shows many students are unlikely to either finish their postsecondary studies or find gainful employment after graduation (HEATH, 2000). The Real-time Educational Access Development project (READ) will provide students with an assistive technology tool designed to provide immediate access to print material enhancing their opportunities for educational and occupational success. This project focuses on the following objectives:

- Improving student potential for successful postsecondary experiences
- Accommodating diverse learning styles in a university setting

Despite efforts to provide equal access to information for students with print disabilities, to date there has been no technology that offers portable real-time audio translation of print material. Print disabilities are defined as deficits in processing the written word or visual limitations. Learning disabilities and visual impairments are conditions often associated with print disabilities. Until recently, the only options were to bring the printed material to a location where it could be scanned and translated using text to speech software or to have another person read it aloud. The former does not allow for flexibility or timely access to information and both rely on outside sources for help, thereby restricting independence. This project proposes the acquisition of a technology tool with which one can both access print material independently and allows immediate real-time access to the material.

This device, the Kurzweil-National Federation for the Blind Reader, combines a digital camera and a personal data assistant to create a portable handheld device that can scan any print material and then uses character recognition software together with text-to-speech conversion technology to “read” the material out loud. This Reader provides unprecedented access to written material and allows a person with difficulty seeing or reading print to access and process information quickly, efficiently, and accurately. The handheld reader could enhance the everyday quality of life of anyone who might benefit from its use and it provides more independent functioning and better performance in many areas, particularly in the classroom. Students would have access to any supplemental class material that is not available to be scanned and translated or read and recorded ahead of time, such as class presentations, handouts, and pop quizzes. Most importantly, the Kurzweil Reader would allow the student to follow along with the presenter and then participate in any testing or discussion based on the written material.

The Reader combines (1) a digital camera that takes a picture of the text, (2) a personal digital assistant that stores and organizes the text, (3) character recognition software to interpret the text,

and (4) text to speech conversion technology to read the text. Thousands of pages can be stored and organized for file transfer to any computer or a Braille notetaker and with the use of earphones, access can be provided without disturbing anyone else in the classroom or other areas.

b. Need/Rationale

Federal legislation continues to support equal access for students with disabilities. The Americans with Disabilities Act 1990 and the Rehabilitation Reauthorization Act 1992 all underscore the provisions of accessible education, transition, and employment. These important laws require postsecondary institutions to provide accommodations that break down barriers to programmatic access. The Disability Resource Center (DRC) at UGA has the capability of providing alternative formats of print media for the growing population of students with disabilities. The DRC has experienced an increase in the number of students with learning, visual, and other print disabilities eligible to receive alternative media services. In 2005, 223 students were eligible for alternative media while in 2006, the number increased to 243. This represents a 9% growth. It is important to note that each of these students has five or more textbooks plus course packets, manuals, and handouts all needed in an alternate format. This is a large job for the DRC as can be seen by the 53,507 pages produced in an alternate format for the 2005-2006 academic year.

The DRC houses an alternative text studio equipped with scanners, computers, Braille embossers, digital audio book software and audio book players. However, the production of such materials involves time and thus materials need to be converted in advance of its use in the classroom. These items include such materials as textbooks, articles, course packets, and library course reserves. The time involved in converting the text can be as much as two weeks for a standard textbook and longer for math or scientific texts. Frequently, however, there are print items used in the classroom that are difficult or impossible to provide to the DRC prior to class. Items such as writings on the board, last minute handouts, and pop quizzes are generally not available before it is used in the classroom thereby denying students with print disabilities full and equal access to classroom materials. While the DRC can convert print material to an audio format in its alternative media studio, use of the handheld reader will make it possible to eliminate the conversion time delay so students with disabilities can experience the class like their non-disabled peers.

In addition, students with disabilities must often rely on others for access to class information resulting in a dependency on the institution. This dependency can lead to a difficult transition to the workplace where similar resources may not be available. Assistive technology allows individuals to minimize limitations while maximizing achievement and independence. The new Kurzweil reader allows students to control and alter the written word to an audio format themselves without relying on others and eliminating the time constraints associated with traditional document conversion. The Kurzweil handheld reader reduces dependence on the DRC while fostering independence and the development of skills that will easily transfer to an employment setting.

c. Relevance of the Project to Unit and University Priorities

The READ project addresses the first strategic direction of the University: Building the New Learning Environment. As stated in this initiative, for students to participate fully in the new digital academic environment, they must possess the understanding and skills necessary to use technology. Students with disabilities must often rely on assistive technologies in order to not only have access to class materials but also be able to take part in discussions, group projects, and other class requirements. By training students to use the Kurzweil reader, a new level of class participation and integration is achieved making the educational experience of students with print disabilities more meaningful.

The Disability Resource Center builds on the University's strategic vision with its goal to provide equal access to UGA's programs and services. With a growing population of eligible students, the Kurzweil reader offers a unique way to deliver alternative media in education settings. The READ project contributes to UGA's and the DRC's goals by providing a more dynamic learning experience for students with disabilities through the use of a new assistive technology. Moreover, the READ Project goes beyond the mandates of the Americans with Disabilities Act and fulfills the spirit of the law by providing the opportunity for immediate participation and equal access to the classroom.

d. Specific courses benefiting from the project

The handheld reader is designed to assist students in most classes that utilize print material written in English. Therefore, it is anticipated that students at the undergraduate, graduate, or professional level can benefit from the immediate access to class materials. The reader may not prove to be effective in courses that use a highly symbolic language like mathematics and foreign languages. However, as text recognition software becomes more accurate, the handheld reader will expand its capabilities to accommodate such software.

e. Number of students served including undergraduate, graduate/professional

In 2005-2006, over 1400 students with disabilities were registered with the DRC with 243 determined eligible to receive alternative media services. This figure includes both undergraduate and graduate/professional students. Beginning in 2004, 158 students were eligible to receive alternative media. The number of eligible students increased to 223 in 2005 and 243 in 2006. Given the trend of growth, it is anticipated that the number of students will continue to steadily increase and as the learning environment is made more accessible, additional students will take advantage of the technology.

II. Budget

a. List technology, facilities, and other resources requested

The technology requested for this proposal includes the purchase of five (5) Kurzweil Handheld Readers. The DRC will house the READ project, maintain and secure the readers, and provide staff to operate the program.

b. Proposed Project READ budget:

Category	Item	Quantity	Total Cost	Requested from LTG	Provided by Other Sources
Equipment	Kurzweil Reader	5	\$17,500	\$17,500	N/A
	Kurzweil Reader	1	\$3,500	N/A	\$3,500
Personnel	Graduate Assistant	1	\$3,600	N/A	\$3,600
Travel	AHEAD	2	\$2,930	\$2,930	N/A
Total				\$20,430	\$7,100

c. Year I timeline

Date	Objective	Person(s) Responsible
October 2006	<ul style="list-style-type: none"> Develop list of eligible students for Spring 07 study Purchase 5 readers 	Alt. Media Specialist Grad. Asst.
November – December	<ul style="list-style-type: none"> Train DRC staff on reader Advertise reader to students Select students to use reader for Spring 07 	Alt. Media Specialist Grad. Asst. Assoc. Dir.
January 2007	<ul style="list-style-type: none"> Students sign consent forms for Spring 07 study 	Grad. Asst.
February	<ul style="list-style-type: none"> Check out 6 readers and train students Conduct pre-test evaluation 	Alt. Media Specialist Grad. Asst.
April	<ul style="list-style-type: none"> Conduct post-test evaluation 	Assoc. Dir. Grad. Asst.
May	<ul style="list-style-type: none"> Collect readers Review Spring 07 evaluation results 	Alt. Media Specialist Grad. Asst. Assoc. Dir.
June - July	<ul style="list-style-type: none"> Compile evaluation results 	Alt. Media Specialist Grad. Asst.
August - October	<ul style="list-style-type: none"> Write Year I report Submit Year I report 	Alt. Media Specialist Assoc. Dir. Grad. Asst.

c. Budget justification narration

Equipment \$17,500 Grant / \$3,500 Federation for the Blind

Equipment costs will include the purchase of 5 Kurzweil Handheld Readers at a cost of \$3,500 each to be used by participants in Project READ. An additional reader will be donated by the National Federation for the Blind for use in the project. The readers will be available on a priority check out basis for all UGA students with print disabilities following the completion of the project.

Personnel \$3,600 DRC

There are no personnel costs to the grant. The DRC will provide a graduate assistant for the duration of the project to assist in implementing the plan of operation.

Travel \$2,930 Grant

Travel funds are requested for project staff to attend the annual Association on Higher Education and Disability (AHEAD) conference to disseminate project activities and research findings for replication at other institutions. The AHEAD organization supports postsecondary disability personnel through education, technical assistance, publications, and professional standards development. Travel will be reimbursed at the approved UGA rate.

AHEAD

Meals	5 days @ \$36 day x 2 staff = \$360
Registration	\$400 x 2 staff = \$800
Airfaire	\$600 x 2 staff = \$1,200
Lodging	4 nights @ \$185 x 2 staff = \$370
Ground Transp.	\$200 for parking, taxi, shuttle, etc.

As stated in this proposal, the Kurzweil handheld reader will greatly enrich the educational experiences of students with print disabilities by providing real-time access to print material.

III. Learning Outcomes

a. Learning outcomes and how resources will be used to achieve these outcomes

The ultimate goal of this program is to provide equal access to print material for those with print disabilities. Project READ provides unprecedented access to written information and empowers the student using the reader by promoting full participation in the class. This project fosters independence as students become less dependent on the DRC to convert their class material. Primarily, Project READ will provide the student with immediate access to the print information that is available to all of the students. With this information, the student is able to participate on the same level as their non-disabled peers and presents students with the opportunity to become a fully active and contributing part of any discussion or debate directly related to the print material. This increased ability to participate will contribute to an increased sense of belonging and a growth in confidence, both of which can lead to an overall increase in satisfaction and classroom performance.

b. Methods for evaluating the project and learning outcomes

The evaluation method will consist of a qualitative study designed to examine various aspects of student satisfaction and class participation following the introduction of the reader. The research proposal will be submitted and approved through the IRB panel. Students will be interviewed prior to using the reader to determine a baseline level. The reader will be given to students at midterm for use in the class and a post-term interview will be administered. The results of the study will help to determine the effectiveness of the reader in a postsecondary classroom setting. Students will discuss their experiences and offer suggestions on improving the applications of the reader.

c. Potential applications in other academic areas

The use of the Kurzweil handheld reader will enrich the learning experiences for students with print disabilities. The increase in class accessibility will open up more academic opportunities for students. Overall, the READ project supports the academic endeavors of students with disabilities across all programs offered on the UGA campus.

IV. Support Plan

a. Staffing and resources to be used to continue the initiative following LTG funding

The DRC is committed to promoting equal access to educational opportunities for UGA students with disabilities. To that end, the administration and staff at the DRC will continue the READ project. The three assistive technology personnel will help in the maintenance and upgrades to the readers. The four alternative media staff will continue to train students on the use of the reader and check out the device for use in classes. The administrative staff of the DRC (4) pledge to persist in securing funding to purchase additional readers in order to ensure that the READ project becomes an integral part of the alternative media program at UGA.