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QTA – A brief analysis of a critical issue in special education

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## Universal Design for Learning: Four State Initiatives

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### Introduction

This Quick Turn Around (QTA) summarizes information from interviews with four states regarding their Universal Design for Learning (UDL) initiatives. The term *UDL initiative* is used to describe any state or regional level effort to promote the principles and practices of UDL via professional development or the production and/or dissemination of universally designed instructional materials. Project FORUM staff at the National Association of State Directors of Special Education (NASDSE) conducted these interviews as part of its Cooperative Agreement with the U.S. Department of Education's Office of Special Education Programs (OSEP).

### Origins of UDL

*Universal design* is a concept that originated in the field of architecture. Architects who incorporate this concept into their work design structures that, from the outset, are intended to be used by all individuals, including those with disabilities.

Adapting this concept to the field of education, the Center for Applied Special Technology (CAST) coined the term *Universal Design for Learning* to describe learning technologies that provide access to the curriculum for students both with and without disabilities.<sup>1</sup> Rather than simply adapting existing curricula for students with disabilities, UDL focuses on creating instructional methods, materials and classroom activities without the traditional barriers. For the past ten years, CAST and others within the field of education have worked on designing curricular materials with built-in adaptations, often using digital media that are accessible to and usable by all students.

According to CAST, curricular materials should be designed to incorporate the following three principles of UDL:

- multiple representations of the information being presented (e.g., both printed text and spoken text);
- multiple means of expression and control (e.g., recording in oral or written text and control through touch or voice); and
- multiple means of motivating and engaging students (e.g., customizable degrees of complexity, structure and novelty).

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<sup>1</sup> More information on CAST can be found at the following website: [www.cast.org](http://www.cast.org).

## Data Collection

In consultation with CAST, Project FORUM staff developed an interview protocol and selected four states to be part of the study – Kentucky, New York, California and Ohio. CAST has been actively involved with each of these states in the development of their UDL initiatives. States were selected to provide a range of information about UDL initiatives currently in place. Interview questions covered the origin and purpose of the UDL initiative, scope of UDL initiative, significant influences on UDL initiative (e.g., collaborative relationships, existing infrastructure, availability of funding and stakeholder support) and future plans. This analysis describes the individual features of each of the four states' UDL initiatives and also provides a summary of strategies and barriers mentioned by states.

## State Initiatives

### Kentucky

#### Origin and Purpose

Of the four states that are part of this study, Kentucky has the most comprehensive and long-standing UDL initiative. Kentucky's initiative originated in 2000 when Preston Lewis, who is now the UDL Coordinator for the Kentucky Department of Education (KDE), first heard about UDL at an OSEP Project Directors meeting where a representative from CAST spoke. Lewis was intrigued by the concept of UDL and solicited input from CAST on the development of a state-level UDL initiative.

The purpose of Kentucky's UDL initiative is to improve student performance on state assessments. According to Lewis, Kentucky is concerned about the fact that students with disabilities tend to have lower test scores than their non-disabled peers. Lewis believes that by improving literacy and access to the curriculum, UDL will help these students do better on state assessments. As Lewis notes, "It's not that our kids can't understand [curriculum] content. It's that they can't get to the content. [UDL] gives those kids the ability to access materials."

#### Scope

Kentucky's UDL initiative has three goals: (1) to integrate UDL concepts and technology across all schools; (2) to increase access to digitized text<sup>2</sup> and curriculum; and (3) to develop a web-based state assessment that will be a model of UDL assessment.

#### *Integration of Concepts and Technology Across All Schools*

In the Fall of 2000, KDE initiated a UDL pilot project to make UDL concepts and technology available to an initial group of schools across the state. During the first year, the project focused on professional development. Twenty-seven teachers from the state's eight regions, the school for the blind and the school for the deaf participated in UDL technology training. In addition to being trained

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<sup>2</sup> Digital or electronic text can be accessed in different formats through a computer. It is inherently flexible and enables the provision of adjustments and supports. For instance, using digital text, a student with a vision impairment can choose a large font display on a computer screen, a student who is blind can choose to have text read aloud or printed on a Braille printer and a student with dyslexia can click on a difficult word to have the computer read it aloud or link it instantly to a context-based definition.

in the use of digital curriculum, all of the teachers were given text-to-speech software and scanners and taught how to use them to produce and read digital text.

During the 2000-01 school year, teachers applied their training in UDL principles and practices with a group of students with disabilities. At year's end, evaluations by teachers revealed significant improvements in student performance in the following five areas: (1) ability to stay on-task; (2) ability to work independently; (3) interactions with teachers; (4) self-concept; and (5) interest in learning. Teachers also reported dramatic increases in students' use of the Internet because, with text-to-speech capabilities, students are able to read all accessible websites.

A second effort to integrate UDL concepts and technology across all schools involves an incentive program for schools to purchase text reader (i.e., text-to-speech) site licenses at a discount. In 2001, Lewis negotiated a volume discount with a major vendor of text reader software, TextHELP, Ltd.<sup>3</sup> This resulted in the purchase of 200 text reader site licenses for only 50 percent of the retail cost. In the fall of 2001, KDE then offered the site licenses to select schools at half the reduced price, if the school paid the other half, effectively making site licenses available to schools at 25 percent of the retail cost.

During the first year, three hundred schools applied to participate in this program. KDE funded 200, giving priority to low-performing schools as measured by the state assessment. Two teachers from each participating school attended a day of training on UDL principles and received hands-on experience using UDL technologies. Teachers were also given scanners and taught how to use the scanners to create digital text. In 2002, KDE funded an additional 125 schools and in 2003 it plans to fund 100 more. Since the TextHELP discount was also available for direct purchase by schools, more than 280 local schools have purchased the software to support their students. This has resulted in more than 600 Kentucky schools having text reader site licenses to support student access to the general curriculum.

#### *Access to Digitized Text and Curriculum*

In order to provide access to digitized text and curriculum, Kentucky has developed a website called the "Digital Text Network." This website helps connect teachers from around the state who are scanning the same textbooks and would like to share the workload. There are currently 500 textbooks listed in the database that teachers have identified as needing to be in digital format. All teachers participating in the Digital Text Network must provide written assurance of compliance with copyright requirements in scanning and use of digital text materials.

KDE has also contracted with the Universal Learning Center (ULC) at CAST to join its national repository of accessible digital text. The ULC is digitizing three Kentucky social studies texts for fourth, fifth and sixth grades. Kentucky membership in the ULC will also allow access to books the ULC is digitizing for other member states.

#### *Web-based State Assessment*

The third component of Kentucky's UDL initiative is computerized access to state assessments. According to Lewis, approximately 40 percent of Kentucky's students with disabilities require a reader in order to take the regular state assessment and he believes that many of these students are

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<sup>3</sup> The TextHELP, Ltd. website is located at [www.texthelp.com](http://www.texthelp.com).

good candidates for web-based assessment. In May of 2002, and then again that fall, Kentucky piloted a web-based accessible version of the regular state assessment in order to see how well the technology functioned. In the most recent pilot, 46 schools and almost 400 students with disabilities participated. These students commented that they enjoyed greater independence in taking the test using their technology and preferred this to dependence on a human reader.

In spring of 2003, KDE will offer a web-based accessible state assessment to students who use UDL technologies for classroom assessment and instruction, consistent with their IEPs. Lewis calls this a good example of UDL because the assessment accommodations are inherent to the design and delivery of the web-based test.

### Influences

A number of factors have influenced the development and implementation of Kentucky's UDL initiative including collaborative relationships, the existence of a strong statewide infrastructure, availability of necessary funds and positive support from stakeholders.

#### *Collaborative Relationships*

Although Kentucky's UDL initiative started with Lewis, who works in the Office of Exceptional Children's Services, he has collaborated extensively with the Office of Educational Technology, Office of Assessment and Accountability, KDE's Curriculum Division, CAST, the American Printing House for the Blind, the University of Louisville (U of L) and the University of Kentucky (U of K). For instance, U of L has been involved in professional development at the local school level, maintenance of Kentucky's UDL webpage and marketing of UDL statewide. U of L and U of K are now providing some training in UDL at the preservice level. CAST and the American Printing House for the Blind are providing consulting services to help Kentucky develop its accessible web-based state assessment.

#### *Existing Infrastructure*

Fundamental to increased curriculum accessibility is Kentucky's technology infrastructure (i.e., the availability of accessible digital curriculum materials to support student learning). The volume purchase agreement with TextHELP, Ltd. provided the discount that has allowed almost 50 percent of Kentucky schools to acquire the textreader site license. Another statewide initiative has established a 6:1 student to computer ratio within classrooms, making computers widely available for student use.

Access to curriculum content is addressed systemically by legislation passed in Kentucky that will require publishers to provide textbooks in an accessible format starting in 2003. This statutory provision, combined with the resources of the Digital Text Network and the work of the ULC, helps provide curriculum content in a format that overcomes the barriers of disability. Lewis also mentioned the importance of federal legislative initiatives, such as the Instructional Materials Accessibility Act of 2003 (IMAA), introduced in the House (H.R. 490) by Representative Petri (R-WI).<sup>4</sup>

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<sup>4</sup> Senator Dodd (D-CT) intends to introduce a similar bill in the Senate in May 2003.

### *Availability of Funding*

Fiscal support for Kentucky's UDL initiative comes from a range of sources, including IDEA Part B funds, the federal State Improvement Grant (SIG), state technology funds, a donation from the Kentucky Developmental Disability Planning Council, which helped offset the cost of site licenses and scanners, and discounts from vendors on UDL technology.

### *Stakeholder Support*

Lewis has been promoting UDL with parent organizations across the state and responses have been very positive. Reactions from teachers have been mixed – some teachers have been hesitant to adopt the new technologies and others have “jumped right in.” The possibility that UDL will improve performance on assessments has also generated a lot of interest and enthusiasm among teachers and administrators throughout Kentucky.

### Future Directions

Kentucky will continue to expand its UDL initiative. This expansion may involve:

- creating a UDL profile for each school identifying the extent to which the school has acquired UDL technology, how many children are using it, what kinds of materials they want digitized and how many students using human readers may benefit from the independence of UDL supports;
- developing a UDL action plan based on these profiles to provide support to those schools that need additional technical assistance in order to use UDL instructional materials more effectively;
- marketing the concept of UDL via newsletters, videos and training seminars to various stakeholders throughout the state, including teachers, superintendents, principals, district technology coordinators, school special education coordinators, district assessment coordinators and parents;
- identifying components of curriculum other than textbooks that need to be digitized; and
- conducting additional evaluation of Kentucky's UDL initiative to supplement 2001 evaluations by teachers.

## **New York**

### Origin and Purpose

New York describes its UDL initiative as “brand new.” Like Kentucky, New York's UDL initiative has been inspired by the work of CAST. In the fall of 2001, OSEP began an unprecedented technical assistance initiative with New York by linking its National Centers and the Research to Practice Division across several topic areas with New York State Education Department (NYSED) personnel from the Office of Vocational and Educational Services for Individuals with Disabilities (VESID). One of the major topic areas of the OSEP Technical Assistance Pilot was access to the general curriculum and the National Center for Accessing the General Curriculum (NCAC) at CAST provided technical assistance, supported by the Research to Practice Division at OSEP. Frederic DeMay, Coordinator for Program Development and Support Services, led the implementation team at VESID. Following several days of in-depth conversations with a variety of stakeholders, New York began developing strategies for introducing UDL as a means to address the problem of access

to the curriculum. Staff at the NYSED recognized that UDL would not only help students with disabilities access the curriculum, but would also help students considered “at-risk.”

According to DeMay, high stakes testing provides an added impetus for districts to adopt UDL principles and practices. DeMay said of UDL, “I don’t think it will take too long for folks to realize that anything that will level the playing field for students with disabilities – to help them demonstrate what they really know instead of being challenged by the mechanics of the test – will be taken very seriously.”

### Scope

New York’s UDL initiative involves three major components: (1) developing a network of individuals who can provide technical assistance and training in the principles of UDL to individual districts and schools throughout the state; (2) disseminating information on UDL via a variety of media; and (3) working with institutes of higher education (IHEs) to add UDL to the preservice curriculum for general and special educators.

#### *Developing a Training Network*

Early in 2002, New York worked with OSEP and CAST to identify an initial cohort of state and district people, primarily professional development and technical assistance staff, to participate in a three-day training by NCAC at CAST that would help build UDL capacity within the state. Two field-based support groups were represented—Special Education Training and Resource Centers and the Regional School Support Centers. Both are professional development groups (supported with federal dollars) that target high-need districts and provide professional development on the provision of necessary supports to at-risk students and/or students with disabilities.

New York is now developing plans to expand the concept of UDL statewide. Members of the initial cohort will share information with districts about a variety of strategies to improve access to the general education curriculum, including UDL. For low-performing districts with a specific interest in UDL, NYSED will make grant funds available – i.e., two-year grants for about \$5,000 per year in addition to other funds that are part of New York’s SIG.

New York has a special statewide technical assistance program in place for assistive technology, known as Technology Resources for Education (TRE). For the academic year 2003-04, NYSED has set aside additional funds to expand TRE staff members’ focus from assistive technology to UDL. The goal, according to DeMay, is to transform TRE staff members into “our homegrown, in-state UDL gurus.”

#### *Disseminating Information on UDL*

Each month NYSED has a series of broadcast programs on PBS called “Tools for Schools.” The November 2002 program focused specifically on UDL. The program and accompanying resource book will soon be available on DVD. Videos and resource guides have so far been sent to more than 1,100 staff development personnel around the state.

DeMay emphasizes that high technology is only one way of implementing UDL within the classroom. The video illustrates both high and low technology. According to DeMay, UDL is “not

dependent on technology per se, it is a mindset that asks, ‘How can I make my classroom inviting and accessible to anyone who comes through that door?’ Technology helps, but you don’t have to have technology to make that work.”

### *Impacting Pre-service Curriculum*

Another goal of NYSED is to add UDL principles and practices to pre-service training at IHEs for general and special education personnel. NYSED works closely with the state’s Higher Education Support Center (HESC) whose purpose is to introduce the latest scientifically-based educational practices to faculty from New York’s teacher preparation programs. Last year, staff from HESC attended the UDL training provided by NCAC at CAST and HESC staff members are now developing strategies for disseminating information on UDL to faculty from 56 participating IHEs.

### Influences

The following section describes some of the factors that have influenced the development and implementation of New York’s UDL initiative including collaborative relationships, statewide infrastructure, availability of funding and stakeholder support.

#### *Collaborative Relationships*

NYSED has a unique relationship with the Research to Practice Division at OSEP, in which OSEP provides technical assistance to NYSED in targeted areas. One of these areas is access to the general education curriculum. Other collaborative relationships include those with NYSED’s Assessment Office; Elementary, Middle, Secondary and Continuing Education Offices; and the Office of Teaching.

#### *Existing Infrastructure*

NYSED has been able to take advantage of the extensive networks of professional development and technical assistance personnel it already has in place. Staff members who are part of these networks are well positioned to work closely with districts and schools on implementing UDL strategies.

Legislation that has helped pave the way for New York’s UDL initiative includes a state law pertaining to textbook adoption that requires school districts to have a policy in place that gives preference to publishers who provide instructional materials in accessible formats.

Other influences on New York’s UDL initiative include the No Child Left Behind Act (NCLB) signed into law on January 8, 2002 and the report from the President’s Commission on Excellence in Special Education, issued July 2002, which specifically refers to UDL.

#### *Availability of Funding*

New York’s first UDL training in 2002 was funded through OSEP as part of the Technical Assistance Pilot. NYSED then wrote a supplemental application for its SIG that included an additional \$85,000 per year for the next four years specifically for UDL.

## *Stakeholder Support*

In addition to support from other offices within the NYSED, New York's IHEs have been particularly receptive to the concept of UDL. Enthusiasm for UDL training has also been strong on the part of trainees.

## Future Directions

In the coming years, New York plans to do the following:

- work with NCAC and CAST to provide follow-up UDL training to New York's first year cohort;
- expand UDL training to additional cohorts, with a particular focus on including participants from New York's IHEs;
- make assessments accessible to students with disabilities through a variety of UDL tools and strategies; and
- increase parent participation.

## **California**

### Origins and Purpose

California's UDL initiative is still in the formative phases.<sup>5</sup> Interest in UDL emerged in 1999 as part of the California Department of Education's (CDE) reading and language arts criteria for publishers. Dennis Kelleher, Special Education Consultant and Rod Brawley, Director of the CDE's Clearinghouse for Specialized Media and Technology (CSMT), are leading CDE's UDL effort. CSMT is federally funded through CDE's Special Education Division.

The primary goal of California's UDL initiative is to make textbooks adopted by the State Board of Education accessible to students with disabilities via a variety of digital media. As Brawley says of UDL, "Never before in special education has there been an opportunity to design learning resources from the ground up for the general population that just *happen* to be accessible to students with disabilities." He predicts that digital media will be the vehicle that empowers students and teachers to control how the material will be accessed and used.

### Scope

Plans for California's UDL initiative focus primarily on: (1) the conversion of required textbooks and other curricular materials into digital formats and (2) the dissemination of information to schools and teachers regarding UDL-based materials.

### *Digitizing Curricular Materials*

The CSMT is currently in the process of developing specifications that will clearly define the digital products to be developed. Although production has fallen behind schedule, CSMT has entered into a limited contract with CAST to produce three experimental digital media books on a CD-ROM.

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<sup>5</sup> Although California's UDL efforts meet the definition for "UDL initiative" provided at the beginning of this document, California does not formally use this term to describe its efforts.



Several other vendors have also expressed interest in working to convert publishers' textbooks into accessible digital formats.

The California State Board of Education has statewide textbook adoption for grades K-8, which means that schools that choose to use state-adopted textbooks get their textbooks for free; however they are not required to use state-adopted textbooks. California Education Code requires the production and distribution of accessible learning resources for students with disabilities. As part of California's UDL initiative, Brawley would eventually like to see all state-adopted textbooks produced in an appropriate digital format to improve access and reduce costs. Although the CSMT will initially "model" the publication of accessible materials by coordinating the conversion of state-adopted texts, it is hoped that publishers will eventually assume responsibility for making their materials accessible to all students.

Kelleher and Brawley feel the need to prove that UDL strategies are not only effective in improving student performance, but also cost efficient. By focusing on readily available technology, such as CD-ROMs and MP3 players, Kelleher and Brawley hope to reduce the learning curve for teachers and students and help keep costs down.

#### *Disseminating Information*

CSMT maintains two computer list services, as well as a website for promoting the various products and services that are available for use by students with disabilities. Although CSMT plans to take responsibility for adapting state-adopted textbooks, Brawley notes that many teachers are also adapting textbooks at the local level.

#### Influences

The development and implementation of California's UDL initiative have been influenced by the following factors: collaborative relationships, statewide infrastructure, availability of funding and positive support from stakeholders.

#### *Collaborative Relationships*

Although Brawley and Kelleher have primary responsibility for California's UDL initiative, they have worked collaboratively with staff members from a number of other CDE offices including Special Education, Curriculum Frameworks, CDE Press, State Special Schools and Services, Governmental Affairs and Technology Services Division.

#### *Existing Infrastructure*

California Education Code mandates that adopted language arts textbooks used in public schools are produced in accessible formats for students with disabilities. Adoption language and publisher compliance support the granting of permission for electronic versions. New legislation is also currently under consideration that defines universal design and expands the responsibility of publishers to incorporate universal design strategies into their electronic learning materials, including captions for videos and accessible Internet pages. Other influences mentioned by Kelleher include the report from the President's Commission on Excellence in Special Education and California's content standards.

There is a long history in California of efforts to create electronic access for students with disabilities. For instance, since 1993 the CSMT has been experimenting with the conversion of textbooks into a variety of electronic formats to facilitate the production of Braille. California's statewide adoption of textbooks for grades K-8 also means that a small number of texts will need to be converted.

### *Availability of Funding*

California is unique in having a state-level instructional materials fund, a portion of which is earmarked for the purchase and/or development of specialized media. This means that specially formatted books developed by CSMT will be delivered to schools at no cost.

### *Stakeholder Support*

The base of support for California's UDL initiative is very strong. Not only does it include other offices within the CDE, but also members of the California legislature, the Association of American Publishers, a number of advocacy groups and parents.

### Future Directions

During the next two to three years, California intends to implement the following components of its planned UDL initiative:

- propose new legislation that will improve access to print, video, Internet and other digital learning resources used in schools; and
- write specifications for new learning resources that improve access to the general curriculum.

## **Ohio**

### Origin and Purpose

Ohio is in the discussion phase of developing plans for a state-level UDL initiative. However, a regional-level UDL initiative coordinated by the Center for Leadership in Education (CLE) has been in place since 2001 in Northeastern Ohio. CLE is a non-profit organization that sponsors a variety of projects relating to comprehensive school improvement. According to Rosa Lockwood of the Office of Exceptional Children (OEC), Ohio Department of Education (ODE), she and other state-level staff have participated in a number of UDL-related training activities sponsored by CLE and hope to collaborate with CLE in developing and implementing Ohio's state-level UDL initiative.

The following section, while focusing on the work of CLE, also discusses the implications of CLE's regional UDL initiative on the future of Ohio's state-level UDL initiative.

CLE's UDL initiative evolved in collaboration with CAST, which was particularly interested in CLE because of its experience offering professional development and classroom-level technical support. According to Anna Marie Farnish, Executive Director of CLE, the UDL initiative began as a way of focusing on both literacy and "access for all." She cautions against UDL initiatives that just focus on digitizing curriculum. In her words, "You can't put the entire focus on technology. Technology is just one more tool. It has to be embedded into your standards-based curriculum."

## Scope

CLE's UDL initiative includes three major components/phases: (1) building organizational capacity in the area of UDL; (2) introducing the concept of UDL to a wide range of CLE's constituents via numerous professional development opportunities; and (3) sponsoring a pilot project providing six school-level teams with ongoing training and support.

### *Capacity Building*

In order to build organizational capacity, CLE sent a team to attend a national CAST institute. The CLE team included two professional staff and a technology manager, as well as a local superintendent with "vision." CAST provided CLE's team with the information and tools it would need to help teachers and administrators throughout Northeastern Ohio integrate UDL principles and practices at the classroom level.

### *Professional Development Opportunities*

Once members of CLE's UDL team had developed a better understanding of UDL principles, they began to think about how to infuse the concept of UDL into a variety of CLE-sponsored leadership building activities. Furthermore, in April of 2002, as part of its *Frontiers in Leadership Series*, CLE invited CAST's David Rose to speak to an audience of more than 200 stakeholders. Lockwood used a number of these activities as an opportunity to introduce state-level staff to the concept of UDL.

### *UDL Pilot Project*

Following Rose's presentation, representatives from 23 school districts expressed interest in further UDL training. Due to limited funding, however, only six school-level teams from five districts were initially invited to participate in the CLE/CAST-sponsored pilot project. Criteria for participation included commitment to change on the part of teachers, commitment from building administrators to provide necessary release time and substitute coverage and access to e-mail and other technology. Each school-level pilot team included at least one general education teacher, one special education teacher, the principal and a technology specialist. The six pilot teams were required to participate in a two-day summer institute sponsored by CLE and CAST, quarterly follow-up meetings and a minimum of four on-site visits.

The two-day summer institute provided teams with an intensive orientation to UDL principles and practices. This orientation included hands-on experience with UDL technology, time for teams to begin working together to develop curriculum that infuses UDL concepts and opportunities for designing action plans.

Quarterly meetings enable members of the six pilot teams to come together and share successes and stumbling blocks. CLE staff members facilitate these meetings. Sessions have included: opportunities for participation in team building and leadership activities that prepare members to advocate for UDL within their school buildings; technology instruction; and introduction to instructional strategies that align the literacy needs of special education students with the Ohio Academic Content Standards.

In between quarterly meetings, CLE staff members provide individual teams with ongoing technical support during on-site visits (e.g., answering questions, providing new information and problem solving). During the August 2002 site visits, CLE staff members worked with each team to develop and refine an individualized UDL action plan. CLE also provides support via telephone and e-mail and is committed to responding immediately to teams' queries.

## Influences

The following factors have influenced Ohio's regional and state-level UDL initiatives: collaborative relationships, statewide infrastructure, availability of funding and support from stakeholders.

### *Collaborative Relationships*

The initiative in northeastern Ohio began with The Nord Family bringing together CAST and CLE to creatively impact public education in the region. In addition to working closely with CAST, CLE collaborates with a wide range of partners throughout northeastern Ohio including administrators and teachers. According to Farnish, these collaborative relationships are essential to any comprehensive school-based reform. At the state level, OEC is working to build collaborative relationships with the Offices of Curriculum and Instruction, and Assessment.

### *Existing Infrastructure*

Over the years, CLE has worked to develop networks of educational professionals who share common interests in school improvement. When CLE became interested in UDL, it was able to take advantage of these existing networks in order to disseminate information on UDL.

Ohio recently adopted the Ohio Academic Content Standards in mathematics, English/language arts, science and social studies. Both Farnish and OEC expressed dismay that UDL was not considered during the discussion on standards at ODE.

### *Availability of Funding*

Funding for CLE comes from several local foundations. In 2001, the Nord Family Foundation funded CAST for the first year to build capacity of CLE staff in the area of UDL. In following years, money to continue the collaborative CLE/CAST capacity-building work and to support the six school-level teams has come from the Nord Family Foundation and from CLE's operating budget. CLE has looked to partners such as Ohio Alliance of Black School Educators, the Polaris Career Center, the Invarare Corporation Foundation and the Saint Ann Foundation to fund speakers and conferences.

### *Stakeholder Support*

Both Farnish and OEC stress the importance of stakeholder buy-in. Although they feel that stakeholders are for the most part enthusiastic, Farnish reports that participants at all levels have been cautious about embracing the concept of UDL and OEC has experienced resistance on the part of state-level staff to some types of accommodations for students with disabilities.

## Future Directions

In the near future, CLE plans to do the following:

- continue providing necessary support to the six school-level teams;
- apply as a consortium (i.e., in collaboration with the five participating school districts) for state and federal funding;
- expand support services beyond the initial six schools;
- work to educate families about how UDL practices can be used within the home and community; and
- partner with OEC to support the development and implementation of a state-level UDL initiative.

At the state level, OEC plans to:

- collaborate with the Offices for Instruction and Literacy to develop a “white paper” which outlines the merits of a state-level UDL initiative and the proposed role of the ODE;
- develop a professional development initiative to expose both state-level general and special education staff to the concept of UDL;
- provide technical assistance to the developers of UDL “toolkits” that will accompany information on Ohio’s new curriculum and content standards;
- invite staff from CAST and other experts from the field to assist with state-level professional development activities; and
- send a team to Kentucky to learn more about Kentucky’s UDL initiative.

### **State Strategies and Barriers**

States reported a number of components of and/or strategies for successful UDL initiatives. At least three states mentioned vision and leadership on the part of one or more SEA-level staff; buy-in on the part of multiple stakeholders, particularly principals and superintendents; availability of funding from a variety of sources; and legislation mandating that publishers provide text in an accessible digital format.

Two states mentioned each of the following strategies: listservs where teachers can contact other teachers who are scanning the same textbooks or instructional materials; UDL-based pilot projects, the outcomes of which can show legislators and potential funding sources that UDL is both cost-effective and empirically sound; cooperation with IHEs to incorporate into personnel preparation for special and general educators UDL principles along with hands-on practice using UDL technologies; and creative dissemination of UDL concepts via teacher newsletters, videos, interactive CDs, websites and conferences.

Three additional strategies were mentioned by one state each: statewide text-book adoption; availability of affordable and easy-to-use technologies at the LEA or school-level; and the ability to provide prompt technical assistance to classroom teachers.

States also mentioned a number of barriers to implementation of UDL initiatives. At least three states mentioned lack of financial support for UDL initiatives and resistance on the part of teachers to learning and using new technologies. The following barriers were each mentioned by two states: hesitancy on the part of publishers to make instructional materials accessible to all students via

digitalized textbooks and other curricular materials; copyright laws which make it difficult for publishers to release books digitally; and lack of funding for the purchase of UDL technology.

One state mentioned each of the following additional barriers: assumption that UDL is only for students with disabilities as opposed to a tool that can also benefit students without disabilities, and the lack of release time for special and general education teachers to plan for use of UDL within the classroom.

### **Concluding Remarks**

There is increasing interest and legislative support for UDL nationwide. Each of the four states included in this study mentioned that its UDL initiative was influenced by NCLB, IDEA, the proposed Instructional Materials Accessibility Act and/or state-level legislation.

The purpose of this document was to describe how several states are addressing the issue of UDL. The four examples included in this study suggest the wide variety of ways in which states can approach the development of UDL initiatives based on their unique needs and strengths.

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