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Measuring up to the IPTS using Universal Design for Learning

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Abstract

This paper examines universal design for learning (UDL) in the light of the new Illinois ProfessionalTeaching Standards (IPTS) (Illinois State Board of Education, 2011) and the requirements underlining thestandards. Universal design for learning, an established concept in the field of architecture, is now beingused in schools for designing instruction which is accessible to all learners, irrespective of their need. It iscommon practice to design accommodations and supplemental teaching strategies for students who fail tolearn in general education classrooms. Instead of retrofitting and providing accommodations to individualchildren, universal design for learning calls for expanding classroom options and providing a flexiblecurriculum and instruction with multiple built-in options providing access to learners with any kind ofneed. Rose and Meyer (2006, viii) posed these questions: "What if all learners had genuine opportunities tolearn in inclusive environments? What if we recognized that our inflexible curricula and learningenvironments are 'disabled' rather than pinning that label on learners who face unnecessary barriers?"This paper analyzes universal design and the component checkpoints under the UDL principles andmatches them with specific performance indicators under the IPTS which they correlate to. The intent ofthis correlation is to demonstrate the need for training teacher candidates with universal design for learningenabling them to master many of the state of Illinois' performance standards for teachers.

Introduction

The newly revised Illinois Professional Teaching Standards (IPTS) (ISBE, 2010) emphasize the growingneed of the hour: enabling *each and every* student to succeed in the classroom. This standard reflects the growing number of student populations with diverse backgrounds, needs, abilities, cultures and language.IPTS indicator 1: Teaching Diverse Students states that "*The competent teacher understands the diversecharacteristics and abilities of each student and how individuals develop and learn within the context oftheir social, economic, cultural, linguistic, and academic experiences. The teacher uses these experiencesto create instructional opportunities that maximize student learning*." The challenge for teachers andteacher educators is how to meet the needs of all students in the classroom while maximizing learning. Thispaper examines universal design for learning as a means to achieve the ambitious new IPTS standards.Designing instruction to suit different learning needs is popularly achieved through the evidence-based practice of differentiating the content, process and product (Tomlinson, 2000). Although the idea ofdifferentiating instruction is more than a decade old, the practice has not trickled down into the classroomsat a rate promising for success. The reasons for this range across a lack of teacher knowledge, skills &training in specific differentiating strategies. So, how do we actually differentiate the content, process andproduct? How do we know we are differentiating instruction? Universal design for learning (UDL)provides a blueprint for differentiation. The concept of universal design principles and the integration oftechnology are mandated by the Individuals with Disabilities Education Improvement Act (IDEA, 2004) and the Higher Education Opportunity Act (2008) to enable educators to reach every student in theclassroom effectively.

Universal design for learning

Universal design for learning is not a new concept. Borrowed from the field of architecture, the conceptinvolves designing structures which enable access to all, irrespective of their limiting conditions (Rose,Meyer & Hitchcock, 2005). Wheelchair ramps, accessible restrooms, handrails, and closed captioning areall examples of universal design. Although these are designed for individuals with special needs, personswithout handicaps often find ramps and handicapped access useful in opening doors and use closedcaptioning in airports, gymnasiums and quiet environments. The premise of universal design is thatrefitting buildings with such accommodations at a later time results in much more effort and expense.Adapting universal design to education calls on teachers to design lesson plans with supports built in to suitlearners with diverse needs, rather than providing remedial instruction ("retrofitting") for those who cannotsucceed at a later time. The premise is that our traditional lesson plans have barriers imbedded within them.UDL calls for the use of low and high technology to remove some common barriers and, thereby, makelessons accessible to all learners (Rose, Meyer & Hitchcock, 2005). UDL is scientifically based on brainresearch, specifically the three main brain networks involved with learning: the recognition network, thestrategic network and the affective network. The recognition network engages the "what" aspect oflearning, i.e., recognizing facts, procedures & concepts. The strategic network involves the "how" aspect oflearning which enables us to find ways to remember procedures, sequences and processes. The affectivenetwork concerns the "why" aspects of learning, involving the feelings, engagement and motivation to learn(Center for Applied Special Technology, 2011).In designing a lesson, these three aspects of the brain network need to be considered to result in effectivelearning; since individuals recognize (perceive), strategize (remember) and feel differently about differentcontent and presentation, options must be provided for optimal learning among people with diverseabilities. This diversity is reflected in varied auditory, visual, oral, motor, behavioral and cultural/linguisticabilities among students, both in perception and expression. In planning for these diverse modalities, we arebetter able to achieve equal access to lessons by all learners in the classroom.How does UDL actually look in the classroom? Here are a few examples: Joe struggles with decodingcomplex words, especially in subjects such as geography. His teacher provides him with audio versions ofthe textbook to help him to comprehend its content along with scaffolds such as highly readable texts andvisual aids for vocabulary words during his geography class. Providing a visual of the word during classand listening while reading both provide Joe the scaffolds he needs to succeed. Aliya is a freshman in highschool and she struggles with writing. Observing that her ability to articulate orally far excels hercomposition skills, her teachers allows her to use a speech-to-text program and a word prediction programwhile drafting and revising her papers. These scaffolds assist her to express her ability and skills in thecontent area. Students like Joe and Aliya with varying abilities need not be limited in gaining access tolearning. Audio books, visuals and writing software are just a few of the possible options that can benefitnot only them, but also many other students with varying levels of reading and writing.Universal design for learning is based on three main principles that guide curriculum design, instructionand assessment:

- "Multiple means to Represent: give diverse learners options for acquiring information and knowledge,
- Multiple means to Express: give learners options for demonstrating what they know,
- Multiple means to Engage: tap into learners' interests, offer appropriate challenges, and increasemotivation" (Center for Applied Special Technology [CAST] 2011).The Center for Applied Special Technology (CAST) which has been involved in promoting UDL, offersvarious resources for teachers and teacher educators, including UDL videos, modules to learn about UDL,sample lesson plans, lesson planning templates and resources to use to provide multiple options. There arenumerous research studies that support the use of different options in representing, expressing and engaging(See National Center on Universal Design for Learning, 2011). The principles of UDL are furtherelaborated through guidelines under each principle and detailed checkpoints under each guideline.

Universal design and Illinois Professional Teaching Standards

Universal design provides tools and skills to achieve various benchmarks put forth in the IllinoisProfessional Teaching Standards. It is clear that designing lessons following universal design guidelineswill enable access to diverse learners in the classroom, as explicitly required in the new IPTS. Using UDLguidelines provided by the Center for Applied Special Technology [CAST] (2011), an analysis of theIllinois Professional Teaching Standards (Illinois State Board of Education, 2010) performance indicators was done to examine the alignment of the two. Tables 1.1, 1.2 and 1.3 illustrate the alignment of UDLguidelines with the IPTS standards.

Table 1.1: Aligning UDL Principle 1 with IPTS standardsTable 1.2: Aligning UDL Principle 2 with IPTS standardsTable 1.3: Aligning UDL Principle 3 with IPTS standards

Principle 1: Provide MultipleMeans of Representation	
UDL guidelines andcheckpoints	**IPTS performance indicators**
Guideline 1: Provide options forperception	
Offer ways of customizing thedisplay of information	1H. analyzes and uses student information to design instruction that meetsthe diverse needs of students and leads to ongoing growth and achievement 1L. uses information about students' individual experiences, families,cultures, and communities to create meaningful learning opportunities andenrich instruction for all students. 5M. uses strategies and techniques for facilitating meaningful inclusion ofindividuals with a range of abilities and experiences
Offer alternatives for auditoryinformation	6J. selects, modifies, and uses a wide range of printed, visual, or auditorymaterials, and online resources appropriate to the content areas and thereading needs and levels of each student (including ELLs, and strugglingand advanced readers)
Offer alternatives for visual information	6J. selects, modifies, and uses a wide range of printed, visual, or auditorymaterials, and online resources appropriate to the content areas and thereading needs and levels of each student (including ELLs, and strugglingand advanced readers)
Guideline 2: Provide options forlanguage, mathematicalexpressions, and symbols	
Clarify vocabulary and symbols	5J. monitors and adjusts strategies in response to feedback from thestudent 6L. facilitates the use of appropriate word identification and vocabularystrategies to develop each student's understanding of content
Clarify syntax and structure	5L. develops a variety of clear, accurate presentations and representationsof concepts, using alternative explanations to assist students'understanding and presenting diverse perspectives to encourage criticaland creative thinking
Support decoding of text,mathematical notation, andsymbols	
Promote understanding acrosslanguages	
Illustrate through multiple media	2M. uses a variety of explanations and multiple representations ofconcepts that capture key ideas to help each student develop conceptualunderstanding and address common misunderstandings
Guideline 3: Provide options forcomprehension	
Activate or supply backgroundknowledge	1I. stimulates prior knowledge and links new ideas to already familiarideas and experiences;
Highlight patterns, criticalfeatures, big ideas, and	1J. differentiates strategies, materials, pace, levels of complexity, andlanguage to introduce concepts and principles so that they are meaningful
relationships	to students at varying levels of development and to students with diverselearning needs
Guide information processing,visualization and manipulation	2Q. applies and adapts an array of content area literacy strategies to makeall subject matter accessible to each student.3Q. develops or selects relevant instructional content, materials,resources, and strategies (e.g., project-based learning) for differentiating instruction.
Maximize transfer and generalization	

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Findings and Conclusion

The above tables demonstrate that the universal design for learning contains checkpoints which correlateclosely with many benchmarks from six of the nine IPTS standards. Universal design for learning holdsgreat potential for increasing the success of the increasingly diverse learners in today's classrooms byproviding explicit guidelines for differentiating the curriculum, instruction and assessment. Teachingpreservice and inservice teachers how to plan lessons that are universally designed enables teachers tomaster numerous performance indicators established through the newly revised Illinois ProfessionalTeaching Standards for educators. The IPTS has established a clear need for use of methods such asuniversal design. Training in UDL should become an important part of the teacher preparation program inany higher education setting.

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The Associated Colleges of Illinois (ACI) *Center for Success in High-Need Schools* was founded in 2004 on the assumption that collaborative partnerships, especially between colleges and schools and betweenteacher education and arts and sciences faculty, would to help close the achievement gap among the largelyminority students at high-need schools. No Child Left Behind (NCLB), the signature educational initiativeof the Bush era, provided the primary funding impetus for the Center, of which a five-year $7.2 millionTeacher Quality Enhancement Program (TQEP) grant was the centerpiece.

ACI member colleges and universities made ideal partners for a program whose success depended oncommitted long-term college-school relationships, shared responsibility and decision-making, and a jointfocus on students and learning. Eight ACI members from across Illinois became TQEP grant co-collaborators with the Center: Aurora University, Concordia University Chicago, Elmhurst College, LakeForest College, McKendree University, North Central College, Quincy University, and University of St.Francis. The case studies that compose this issue of the *Journal for Success in High-Need Schools* tell their stories--what they put in place, what they achieved, and what they have sustained since TQEP grantfunding ended in 2009.

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