Universal Design for Learning: Implementation in Educational Settings

OT Research Symposium
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The ACCESS Project

- Funded by U.S. Dept. of Education, Office of Postsecondary Education
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- Our Goal:
  - Ensure that students with disabilities receive a quality higher education
- Our Method:
  - Universal Design for Learning (UDL)
  - Student Self-Advocacy

Learning Objectives

- Think differently
  - systemic change vs. direct service with students with disabilities
  - changes in public policy
  - partner and collaborate with teachers and other school personnel
- Understand the benefits of UDL
  - UDL increases access to education for all students
  - Consider UDL in your intervention
- Consider that OT can be more impactful in school practice
Public Policy

• Changing Roles under new federal requirements*
  - Increased emphasis on collaboration in the classroom
  - Also fits with OT “Framework” and its approaches to intervention

• Almost half of the more than 6 million students served under IDEA spend at least 80% of the school day in general education classes*

• IDEA encourages:
  - Pre-referral intervention
  - RtI approach

*Collaborating for Student Success, p. 333
*OT Services for Children and Youth under IDEA, p. 214

RtI’s three-tiered model*

| Tier 1: Core Instruction; Universal Supports; Universal Screening and Instruction |
| Tier 2: Targeted Intervention and progress monitoring |
| Tier 3: Intensive Intervention |

1–5%
10–15%
80–90%

*Occupational Therapy Services for Children and Youth Under IDEA (2007). Leslie Jackson Ed. AOTA. p. 114

Current Legislation Speaks to UDL

• The National Technology Plan for Education 2010
  - Calls for schools to integrate current and future technology skills and knowledge into both the curriculum and instructional methods used
  - Repeatedly cites UDL as an evidence based strategy for teaching*

• Higher Education Opportunity Act
  - 2008 reauthorization established the first statutory definition of Universal Design for Learning

• No child Left Behind Act – reauthorization
  - all students, including students with disabilities perform at grade level in core content areas

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Universal Design (UD)

- Build in accessibility from the start
  - Curb cuts in city streets
  - Ramps and automatic door openers
  - TV closed captions
  - Ergonomic kitchen utensils
- Everyone benefits from a more flexible, user-friendly environment
- Fix the environment, not the individual

Universal Design for Learning (UDL)

- Inclusive pedagogy
- UDL applies to both teaching and technology

Defining UDL

“Universal Design for Learning (UDL) is a set of principles and techniques for teaching, creating inclusive instruction, and accessible technology.”
Disabilities:
• Mobility Impairments
• Blindness/Visual Impairments
• Deafness/Hearing Impairments

• Learning Disabilities
• Attention Deficit Disorder (ADD/ADHD)
• Autism Spectrum Disorder
• Traumatic Brain Injury (TBI)
• Post Traumatic Stress Disorder (PTSD)
• Mental Illness

Non-apparent: >2/3 of total and growing

UDL Principle 1
Represent information and concepts in multiple ways (and in a variety of formats)

Help teachers to:
• Modify curriculum to benefit all learners (e.g., hand-writing curricula)
• Conduct group learning activities
• Incorporate hands-on learning activities
• Distribute class notes or projects ahead of time
• Use multi-media and digital formats
  • electronic study tools, concept mapping, text to speech; multi-modal output
  • Text + Graphics, Audio, Video
  • Usable electronic formats (e.g., Word, PDF, HTML)
  • Digital books

UDL Principle 2
Students are given multiple ways to express their comprehension and mastery of a topic.

Collaborate with teachers to implement:
• The “Three P’s”: Projects, Performances, Presentations
• Mini-writing assignment
• Portfolios/Journals/Essays
• Making a wide variety of writing utensils available
• Allowing students to use computers for written assignments
• Using multi-media tools to express what they know (text/graphics/audio/video)
UDL Principle 3
Students engage with new ideas and information in multiple ways

Influence school personnel to:

• Challenge students with meaningful, real-world assignments (e.g., service learning, project-based learning)

• Give prompt and instructive feedback

• Utilize technology
  - Literacy software tools
  - Use of courseware
  - Use classroom response systems (e.g., i>clickers)

What does technology provide the Teacher?

• OT’s can encourage use of technology in the general classroom:
  - Interactive ways to provide content
  - Multi-modal delivery of content
  - Scaffolding
  - Differentiated instruction
  - Ability to capitalize on individual learning styles

• Meets the intent of the legislation

Technology that can support representation, expression & engagement

• iPads or tablets in classrooms –
  - Instant access to supplemental resources such as Google, Google Earth
  - Useful apps for supplemental support e.g., handwriting

• Site licenses for assistive technology
  - Spell and grammar checkers
  - Concept mapping software – Kidspiration & Inspiration
  - Word prediction & word completion
  - Translation software
  - Literacy software – Kurzweil 3000, Wynn, Read & Write Gold, Co:writer/Write:Outloud, & Read Outloud.

• Use of digital formats - books and other course materials
  - NIMAS – National Instructional Materials Accessibility Standard

• Smartphones – great apps for organization & memory

• CAST materials – Center for Applied Special Tech (non-profit)
Examples of technology and UDL from CAST

- “Goal is to create offer alternative ways to access, use and engage with learning content”*
- “Print-based environment makes this difficult; digital media & computer technologies make for a malleable curriculum.”**
- [http://www.cast.org/learningtools/index.html](http://www.cast.org/learningtools/index.html)
  - UDL Book Builder
  - Science Writer
  - UDL Editions
  - UDL Guidelines and Lesson Builder
  - Guidelines


Examples of mainstream classroom technologies

- Tablet computers
  - [http://www.youtube.com/user/nlgilardino#p/u/72/BDFY24Rh.ks](http://www.youtube.com/user/nlgilardino#p/u/72/BDFY24Rh.ks)
- iPad
  - [http://www.youtube.com/watch?v=kdpjIR8KjLU&feature=related](http://www.youtube.com/watch?v=kdpjIR8KjLU&feature=related)

UDL within the RtI model

1 – 5%
10–15%
80–90%

Tier 3: Intensive Intervention
Tier 2: Targeted Intervention and progress monitoring
Tier 1: Core Instruction; Universal Supports; Universal Screening and Instruction

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UDL is a natural fit with Tier I of RtI
OTs can...

• promote curricula that support all learning styles
• Suggest materials for classroom use
  • (e.g., raised line paper, tabletop easels, pre-writing activities)
• Recommend furniture and lighting that enhance performance and prevent injury
• Implement school-wide efforts to enhance students’ social and emotional responses to activities at lunch, recess and transitions
• Suggest access to tech tools for the entire classroom
  • Site licenses for Read & Write Gold, Write:Outloud, Co:Writer, Read:Outloud
  • Students use the tools they desire (e.g., text to speech)
  • Digital book players (e.g., ClassMate Reader)
  • Other tools: Intel Reader, Scanning and Reading pens

Closing

• UDL is an opportunity for OTs to help schools meet the diverse needs of ALL students
• You have the legislative mandates and rationale to move services to the teacher/classroom level
• Questions:
  • What challenges do we face?
  • How can we overcome them?
  • What can we do right now?

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