

Universal Design and Differentiated Instruction:

A Position Paper to Resolve Potentially Competing Mandates

of the *Individuals with Disabilities Education Act* and *No Child Left Behind*

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Abstract

Recent federal mandates require accountability for providing students with disabilities access to the general education curriculum. In this paper, the authors recommend that teacher educator for the new majority consider how the principles of Universal Design for Learning and Differentiated Instruction can help school personnel tailor their teaching to meet the various strengths and needs of individual students.

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Historically, teachers have been required to provide evidence of the successes of their teaching. Currently, they are plagued with accountability mandates. The *No Child Left Behind Act* (NCLB, 2002) mandates that 100% of students demonstrate adequate yearly progress, meaning that students will meet their state's academic achievement standards. If children with disabilities within a school fail to make adequate yearly progress toward reaching the proficiency goal in reading and math by 2014, the school potentially faces a host of remedial actions intended to improve school performance. In addition, schools must also comply with the *Individuals with Disabilities Education Act* (IDEA, 1997). IDEA requires that students with disabilities be educated with their peers without disabilities to the maximum extent appropriate. Students in special education can only be removed to separate classes or schools when the nature and the severity of their disabilities is such that they cannot receive an appropriate education in a general education classroom with supplementary aids and services. Enforcing both of these federal mandates has been an administrative challenge because meeting the needs of these students is something most teachers are not trained or are not willing to do.

Universal Design for Learning and Differentiated Instruction Defined

Universal Design for Learning (UDL) was first developed by a working group of architects, product designers, engineers, and environmental design researchers. It makes products, communications, and the physical environment more usable by as many people

as possible at little or no extra cost. Applied to public schools, UDL makes a district's curriculum, materials, and school environments more accessible and usable by all students from different backgrounds and with different learning styles (Meyer & Rose, 2002). UDL provides a set of principles for teachers and administrators to design curriculum that decreases segregation of students based on their different levels of performance. According to Gordon (2002), UDL increases access to the general education curriculum for students with disabilities. According to Tomlinson (1999), Differentiated Instruction (DI) is a process where educators vary the learning activities, content demands, and modes of assessment to meet the needs and support the growth of each child. DI provides different learning experiences in response to each student's needs.

The Research Process to Develop the Position Paper

During the Fall 2003 semester, each participant in EEX 7933 (Advanced Topics in Special Education Research) identified vexing issues that face special educators in the 21st century. The overlap with issues identified by Boehner (2002), chair of the House Committee on Reauthorization of IDEA, included balancing the competing demands of IDEA and NCLB. In what ways can teachers and administrators differentiate instruction, provide advocacy and supports for families of children with disabilities in the face of high stakes testing, and ensure students with disabilities with meaningful access to the general education curriculum?

The authors brought their perspectives to the process. For example, Salazar, an assistant principal at a magnet school, is implementing a co-teaching grant that has resulted in a nearly 40% increase in the number of children with disabilities being

instructed with their age-grade classmates. Falkenberg, a special educator, shares a co-teaching assignment with general educators in addition to her responsibilities as a resource room specialist. Nevin, a professor with more than 30 years of experience in general and special education teacher preparation programs, brings a rich experience and action research base for providing differentiated instruction in general education classrooms. Nullman, a clinical speech pathologist, provides many services within pre-K through elementary school environments. Silió, a program specialist, supports co-teaching teams who provide access to the general education curriculum for students with multiple disabilities.

The authors began their study of the issue by comparing and contrasting the views of a general education professor (Tomlinson, 1999) and a special education professor (Udvari-Solner, 2002). The authors also searched the Educational Resources Information Center (ERIC) data base to find examples of current research and practice. Finally, the authors conducted interviews to discover perspectives from a curriculum and instruction professor, a special education doctoral student serving as an instructor, a representative of Florida's Diagnostic and Learning Environment Resource System, co-teachers in the public schools, and an undergraduate of a program where special education concepts such as UDL and DI are infused in teacher preparation). Each participant generated a personal position statement. A constant comparative method (Bogdan & Biklan, 1998) helped the authors identify and select themes which formed the basis for the synthesis.

Obstacles for Universal Design and Differentiated Instruction

Two obstacles that have been identified in the literature include lack of space and lack of training, explained below.

Lack of Space

In many urban schools, the issue of overcrowding takes precedence over all else.

Teaching forty or more students in one regular sized classroom may not be conducive to enthusiastic responses to UDL and DI from these educators. Some schools have two teachers sharing one space, which again poses the possibility of unenthusiastic reactions from teachers. Other issues include insufficiently funded schools wherein budget constraints and staffing challenges often force tough decisions regarding class size and scheduling.

Lack of Training

Training educators on the methods of universal design and differentiated instruction strategies and techniques may be quite inadequate in part due to lack of finances to hire substitutes so that teachers may attend training events. Both UDL and DI require collaborative planning amongst teachers with different curriculum knowledge and skills. Complaints that are often raised include lack of time to co-plan and lack of resources to teach a differentiated curriculum.

Support for Universal Design for Learning and Differentiated Instruction

In spite of the obstacles described above, there appears to be some support for selecting UDL and DI as a way of addressing the competing mandates. In this section, examples of UDL and DI in the classroom are described. Attributes and dispositions of preservice and in-service teachers who use UDL and DI are articulated.

Classroom Applications of Universal Design for Learning and Differentiated Instruction

Teachers in differentiated classrooms use UDL and DI to set individualized learning goals, define curricular content, structure learning activities, and conduct varied

assessments that allow students to choose how to achieve the goals. Examples of UDL and DI at elementary and secondary levels are provided by Tomlinson (1999, 2002), Hall (2002), and Udvari-Solner (2002). An example at the local level is provided by Mr. F. an inclusion teacher at Claude Pepper Elementary in Miami-Dade County, who uses both UDL and DI for his 5th grade class (Personal Communication, October, 2003). Mr. F. recently planned a fifth-grade social studies lesson on holidays around the world where the students selected options for how to present the information they learned. Some students gave speeches, some made books, and others wrote plays or created PowerPoint slides. One student produced a videotaped interview of her Vietnamese grandparents detailing the rituals of a holiday called the Firecracker Festival. As part of the UDL planning process, Mr. F. routinely implements strategies to monitor progress of his students' skills and knowledge. Assessment strategies include accepting oral responses to math questions, typed responses for comprehension questions in language arts, portfolio assessments, and standardized test scores. When students demonstrate their understanding of specific concepts, he encourages them to move on. He noted, to his delight, that students, when given options, usually choose an appropriate level of difficulty for their next assignment.

Not only can classroom assessment strategies can be adapted using UDL, Johnstone (2003) examined the effects of UDL to adapt standardized assessment tests. The mixed methods analysis of 231 sixth grade students from traditionally under-performing schools involved comparing their scores on a traditionally designed large-scale assessment test to scores obtained on a comparable test developed with UDL principles. Students scored significantly higher ($p \leq .05$) on the UDL designed test.

Implications of the assessment study extend to other fields. Other researchers are calling for similar adaptations in other arenas; for example, Meyers and Andresen (2000) recommended that universal design principles be used in the design of medical and rehabilitative research to assure better representation of people with disabilities.

Dispositions and Attributes of Teachers Using Universal Design and Differentiated Instruction

If administrators and teachers are to adopt the concept of universal design in their schools and classrooms, Assistant Principal Salazar agrees with Udvari-Solner (2002) that five research based dispositions must be internalized and accepted so as to bring about meaningful change in a school's methodology and culture.

1. Each student has unique characteristics which will require the teacher to recognize that teaching is not as easy as it is perceived;
2. Differentiating instruction with regards to the curriculum should be second nature and not a time consuming chore;
3. The UDL process allows the teacher to be proactive as they create content, process, and product in response to student readiness, interests and learning profiles;
4. Two heads will work better than one! Sharing lessons and materials, planning and solving problems, and co-teaching lessons together will create a synergy among the general educators, special educators, and related service personnel such as speech therapists;
5. Effective teaching should be experienced by all students, not only students with special needs.

Students with disabilities, students at risk for school failure, students who are learning English as their second language, and students from culturally and ethnically diverse backgrounds benefit when their teachers share certain these attributes. As described by Udvari-Solner (2002), teachers who use UDL and DI tend to show these attributes:

1. They are pro-active.
2. They use qualitative as well as quantitative assessment methods.
3. They use multiple approaches to content, process, and products.
4. They are student-centered., and
5. They blend whole class, small group, and 1-1 instructional activities.

While the authors agree that a study of these dispositions and attributes would make an excellent research project, a good hypothesis might be that school reform may be more likely to occur if these dispositions were shared by a school community.

Preparing Teachers to Use Universal Design for Learning and Differentiated Instruction

Can teachers acquire the dispositions, conceptual framework, and technical skills to effectively teach a diversity of children in 21st century schools? Historically, teacher preparation programs were separated into regular and special education programs and thus have not provided pre-service teachers with the intensive training and experience they need to be effective collaborators in planning, teaching, and evaluating instruction.

An examination of existing curricula and the emerging demands on educators (e.g., use of technology, collaborative teaming and problem solving, linguistic diversity, inclusion of children with disabilities in general education) should lead faculty to understand the urgency to conceptualize new competencies, standards, content and experiences. Once

competencies have been determined, a core set of courses or learning units and field experiences can be developed and required of all education majors.

Villa, Thousand and Chapple (2000) delineated how faculty at four universities (Trinity College, University of Vermont; Syracuse (NY) University, California State University San Marcos, and the University of Northern Colorado) “retooled their professional preparation programs to better ready graduates for meeting the challenges of inclusive 21st century education ... to create new and innovative training initiatives that model faculty and community collaboration and depart from traditional ways of inducting educators into their profession” (Villa, et al., 2002, p. 536).

An interview with Ms. R., a recent Syracuse University graduate, revealed insight into the curriculum and innovative training that pre-service teachers can receive. The faculty had merged the previously separate elementary and special education programs to create a single inclusive elementary and special education teacher preparation program. Varied practicum experiences in inclusive inner-city, urban and suburban schools allow the opportunity to develop and apply skills to educate culturally diverse students as well as students with special needs. Graduates are certified in both elementary and special education. Although initially apprehensive, Ms. R. reported that her “most valuable experiences were working one on one with children with special needs, and reading case studies on successful differentiated instruction programs” (Personal Communication, October, 2003). She feels capable to meet the challenges that inclusive educational settings might offer.

Although innovative programs are surfacing, many educators report that they are ill prepared to respond effectively to the needs of a widely diverse population. Personnel

in local communities, school districts and state departments of education currently are working diligently to prepare teachers to educate all children in general education environments through in-service programs. According to Villa, et al. (2002), survey research results emphasized the importance of avoiding single-session training experiences. Instead, in-service training formats should include options such as summer institutes, graduate courses, workshops, required in-service presentations, staff meetings, one-to-one consultation, conversation, mentoring, team teaching, video taping, and coaching. Some of the topics teachers most appreciate include new methods for adapting curriculum, teaching collaboratively, and introducing more than one curriculum at a time.

At the local level, interviews with representatives from Florida International University (FIU) College of Education indicated that principles of UDL and DI are known to them, and that the principles and practices should be infused in more of the coursework offered throughout the teacher preparation programs at FIU. For example, a recent graduate of the special education doctoral program commented, “Adapting the lessons could get tricky if the teacher has a large class that is composed of children with a variety of disabilities” (Personal Communication, October 6, 2003). An adjunct professor in the Curriculum and Instruction area articulated strong support for using both UDL and DI to address individual differences in the classroom (Personal Communication, October, 2003). A professor in the Educational Psychology program, stated, “[UDL and DI are] feasible in the high stakes testing arena because of the data [on effectiveness] presented by some Massachusetts researchers at the Center for Applied Special Education Technology who were involved in the development and validation of some test items. The faculty should use it more extensively in teacher preparation ... [because UDL and

DI] can be beneficially used for learners classified for special education services and those receiving services for English as a Speaker of Other Languages" (Personal Communication, October, 2003).

Implications

Caveats that the authors offer in interpreting this position paper include the fact that the personal interviews may represent an unconscious selection bias which suggests the need for validating the interviewees' responses with a larger sample. Moreover, the literature review needs to be expanded to provide historical and theoretical perspectives. . The authors hope that readers will be encouraged to conduct their own research on this issue so as to come to an informed agreement that Universal Design for Learning and Differentiated Instruction can empower educators and administrators so as to actualize the ideals of *both* the No Child Left Behind Act and the Individuals with Disabilities Education Act.

The authors emphasize that there is an essential obligation to prepare today's educators to meet the challenge of teaching children with special needs and children from diverse backgrounds within an inclusion classroom. With administrative support from school districts and faculty in teacher preparation in colleges and universities, pre-service and in-service training can be provided so that educators will gain the critical knowledge and skills to implement the principles of UDL and DI. University faculty can restructure professional teacher education preparation programs so that graduates are no longer viewed as emerging from separate systems of education. Quality teachers possess a deep understanding of their content area knowledge and apply research-proven instructional strategies to appropriately educate their students.

There are no shortcuts to the intellectually demanding and challenging work of teaching. It is true that implementing the principles of UDL and DI for each and every student represents a lofty goal. America's students deserve no less. The authors hope that readers will agree with researchers such as Dr. Rose, a professor in the Technology in Education Program at Harvard Graduate School of Education (as cited in Gordon, 2002, p. 2), "UDL expands the number of opportunities kids have to succeed."

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