Differences between Differentiated Instruction and Universal Design for Learning

AREEJ ALSALAMAH
Washington State University

Abstract:
To make education available to all students, educators can apply the Differentiated Instruction framework, the Universal Design for Learning (UDL) framework, or both. However, some educators do not distinguish between the Differentiated Instruction and UDL frameworks. Therefore, this paper discusses the differences between these frameworks in light of the frameworks' histories, definitions, educational contexts, education legislation, principles, and guidelines.

Keywords: *Differentiated Instruction, Universal Design for Learning*

Although both the differentiated instruction and the UDL framework are designed to promote students' learning, they have some differences. These differences start with their histories and definitions. Discussion on the differentiated instruction started earlier than that on the UDL framework. In 1953, it was suggested in an article published by Carleton W. Washburne to discuss the challenges of individual differences in light of the educational leadership (Synder, 2017). The differentiated instruction is defined as a pedagogical approach designed to teach and promote learning across students who have different readiness levels, interests, and models of learning in the same classroom (Landrum & McDuffie, 2010). Also, it is known for the change in the pace, level, or kind of instruction that teachers provide in response to individual students' needs, learning styles, or interests (Heacox, 2012). Through this framework, students with disabilities are supported by integrating the differentiated instruction into their IEP, and the instruction is designed in general depending on the assessment of what students know and what they need to know next (Landrum & McDuffie, 2010), which confirms that the differentiated instruction occurs in the context of regular education, and it also occurs after teachers provide instructions by adding a change or modification to the instruction already designed.

On the other hand, the UDL framework started through the efforts of David Rose, who cofounded the Center for Applied Special Technology (CAST), which was found in 1984 to improve education and make it evaluable for all learners in light of cognitive neurosciences (Center for Applied Special Technology, 2017). In the 1990s, Rose and Anne Meyer identified an approach that would address schools' disabilities rather than students', which was later named the UDL framework (Meyer, Rose, & Gordon, 2014). The clear educational definition of the UDL framework was provided by Orkwis and McLane (1998):

In the term of learning, universal design means the design of instructional materials and activities that allows the learning goals to be achievable by individual with wide differences in their abilities to see, hear, speak, move, read, write, understand English, attend, organize, engage, and remember. Universal design for learning is achieved by means of flexible curricular materials and activities that provide alternative for students with disabilities in abilities and backgrounds. These alternatives should be built into the instructional design and operating system of educational materials they should not have to be added on later. (p. 10)

This means that the UDL framework is influenced by a special education context, and it occurs in the conceptualization of the design of the educational instruction and materials. However, it is not clear how the differentiated instruction aligns with the educational law; for example, the No Children Left

Behind Act (NCLB) encourages schools to ensure students' learning by giving them an opportunity to learn by providing different choices (Rushton & Juola-Rushton, 2008). Also, it is not clear how the differentiated instruction aligns with the Individuals with Disabilities Education Act (IDEA) and NCLB, as they both require providing students access to the general education curriculum (Broderick, Mehta-Parekh, & Reid, 2005). On the other hand, the UDL framework is directly mentioned by the IDEA, Assistive Technology Act (ATA) (National Center for Learning Disabilities, 2008), Every Student Succeeds Act (ESSA), and Higher Education Opportunity Act (HEOA) (Center for Applied Special Technology, 2016).

The differentiated instruction framework also differs from the UDL framework in terms of framework principles and guidelines. The differentiated instruction is considered a philosophical framework developed to orient educational practices and theories, such as that applied in multiple intelligences, as well as in brain research applied as part of the educational practices provided in bilingual and multicultural education (Santamaria, 2009). The four differentiated instruction principles are the following: (a) Focusing in essential skills in each content area (Rock, Gregg, Ellis, & Gable, 2008) by giving central access; ranging objectives, educational goals, and tasks to high standardized test; and modifying the complexity of content to respond to diverse students. Teachers can achieve this by illustrating the main concepts and generalizations (Santamaria, 2009). (b) Responding to students' differences (Rock, Gregg, Ellis, & Gable, 2008) by providing different strategies to support content, students' projects, and evaluation; utilizing flexible grouping and class management; and promoting students' interaction. Teachers can achieve this by promoting critical and creative thinking, ranging balance between the task required by teachers and the task selected by students, and encouraging students' engagement (Santamaria, 2009). (c) Integrating assessment and instruction (Rock, Gregg, Ellis, & Gable, 2008) by conducting initial and ongoing assessment while providing clear expectations and requirements for students' responses, which can be gained by utilizing the assessment as a teaching tool (Santamaria, 2009). (d) Implementing ongoing adjustment of content (Rock, Gregg, Ellis, & Gable, 2008). Through this framework, teachers make decisions based on formative assessment data, research-based instruction strategies, and a positive environment (White, 2017).

On the other hand, the UDL framework is based on three principles and nine guidelines, which include applying both technological and pedagogical aspects to promote the learning of students with or without disabilities (King-Sears, 2009). The three principles of UDL, according to the National Center on Universal Design for Learning (2014), are the following: the first principle reflects the "what" of learning by providing multiple means of representation, the second principle concentrates on the "how" of learning by providing multiple means of action and expression, and the last principle reflects the "why" of learning by providing multiple means of engagement. These principles can be applied by following the nine guidelines identified by the Center for Applied Special Technology (2011): provide an option for perception; language, mathematical expressions, and symbols; comprehension; physical action; expression and communication; executive functions; recruiting interest; sustaining effort and persistence; and self-regulation (Center for Applied Special Technology, 2011).

In this framework, teachers apply the instruction to encourage success among students by developing instructional materials, strategies, and assessment tools with scaffolded learning tasks to ensure that all students get opportunities to succeed (Stanford & Reeves, 2009). The UDL framework treats novice students as expert learners who are able to know how to learn and are eager to learn more. They have an acceptable level of self-regulation, set difficult goals for themselves, and orient their efforts toward achieving these goals (Meyer, Rose, & Gordon, 2014). Indeed, the differentiated instruction framework can be applied by teachers through the UDL framework to support the curriculum (Stanford & Reeves, 2009), which means that the differentiated instruction can be included in the UDL framework as a small part.

Conclusion

In general, there is overlapping in understanding the differences between the UDL framework and the differentiated instruction framework among educators. However, both are designed to enhance flexibility and students' learning based on individual characteristics, background, ability level, and interest. Also, both have distinct features; for example, the differentiated instruction focuses on the curriculum and changing or modifying the instruction according to individual needs. On the other hand, the UDL framework reduces the learning and environmental barriers from the start, which means that through this framework, teachers do not have to wait to note that students fail to change their intervention; also, they can give the differentiated instruction besides applying the UDL principles and guidelines. Thus, more research is required to provide information on how educators can combine the potential components of each framework to promote students' learning and improve the level of teaching.

References

1. Broderick, A., Mehta-Parekh, H., & Reid, D. K. (2005). Differentiating instruction for disabled students in inclusive classrooms. Theory into Practice, 44(3), 194–202.
2. Center for Applied Special Technology. (2011). Universal Design for Learning Guidelines Version 2.0. Wakefield, MA: Author.
3. Center for Applied Special Technology. (2016). UDL in the ESSA. Retrieved on October 21, 2017 from http://www.cast.org/whats-new/news/2016/udl-in-the-essa.html#.Weo5rEyZP_Q
4. Center for Applied Special Technology. (2017). CAST's Co-founder and chief education officer, emeritus. Retrieved on October 20, 2017 from http://www.cast.org/about/board/david-rose.html#.WcwS60yZOqA
5. Heacox, D. (2012). Differentiating instruction in the regular classroom: How to reach and teach all learners (Updated anniversary edition). Free Spirit Publishing. Retrieved in October 20, 2017 from https://books.google.com/books?hl=en&lr=&id=8g4YfvYnfVcC&oi=fnd&pg=PP1&dq=+differentiating+instruction+History&ots=VQ4pGNXAdm&sig=bE9cT15yhEaLTQleFkcXMTW3p1A#v=onepage&q=differentiating%20instruction%20History&f=false
6. King-Sears, M. (2009). Universal design for learning: Technology and pedagogy. Learning Disability Quarterly, 32(4), 199–201.
7. Landrum, T. J., & McDuffie, K. A. (2010). Learning styles in the age of differentiated instruction. Exceptionality, 18(1), 6–17.
8. Meyer, A., Rose, D. H., & Gordon, D. (2014). Universal design for learning: Theory and practice. Wakefield, MA: CAST Professional Publishing.
9. National Center for Learning Disabilities. (2008). A parent's guide to universal design for learning (UDL). Retrieved on October 20, 2017 from http://www.cpacinc.org/wp-content/uploads/2009/12/ParentsGuidetoUDL.pdf
10. National Center on Universal Design for Learning. (2014). What is UDL? Retrieved in October 20, 2017 from http://www.udlcenter.org/aboutudl/whatisudl
11. Orkwis, R., & McLane, K. (1998). A curriculum every student can use: Design principles for student access. ERIC/OSEP Topical Brief.
12. Rock, M. L., Gregg, M., Ellis, E., & Gable, R. A. (2008). REACH: A framework for differentiating classroom instruction. Preventing School Failure: Alternative Education for Children and Youth, 52(2), 31–47.
13. Rushton, S., & Juola-Rushton, A. (2008). Classroom learning environment, brain research and the no child left behind initiative: 6 years later. Early Childhood Education Journal, 36(1), 87.
14. Santamaria, L. J. (2009). Culturally responsive differentiated instruction: Narrowing gaps between best pedagogical practices benefiting all learners. Teachers College Record, 111(1), 214–247.
15. Snyder, D. (2017). A brief history of differentiated instruction. ASCD Supporting Education Yesterday, Today, and tomorrow. Retrieved on October 21, 2017 from http://www.ascd.org/ascd-express/vol4/425-mybackpages.aspx

16. Stanford, B., & Reeves, S. (2009). Making it happen: Using differentiated instruction, retrofit framework, and universal design for learning. Teaching Exceptional Children Plus, 5(6), n6.

17. White, I. (2017). Using differentiated instruction to implement the common core state standards. Connecticut State Department of Education. Retrieved on October 22, 2017 from http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&q=333594