

Book Review: Universal Design for Learning in the Classroom

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This current book entitled *Universal Design for Learning in the Classroom* edited by Tracey E. Hall, Anne Meyer and David H. Rose (The Guilford Press, 2012, 152 pages, ISBN: 978-1-4625-0631-6) introduces Universal Design for Learning, or UDL, and proposes a critical understanding for how UDL enhances learning for all students.

The main idea of this book is that students come from a variety of cultures and have diverse experiences; therefore, classroom teachers' approach to education should be flexible so that every student in the classroom gets a chance to learn. UDL removing the curricular and instructional barriers with its guidelines offers a flexible education addressing the needs of various students. The book provides a comprehensive understanding for how UDL principles and guidelines can be implemented to various subjects such as science, math, history, and arts.

The authors of the book have specialized in areas such as educational leadership, special education, and instructional design. The book is a valuable resource that can make a big difference in the present education system. The book is fluent and the chapters explain the process of implementing UDL in a well-designed way.

Chapter 1 defines what Universal Design for Learning, or UDL, is and provides an understanding for the principles of UDL. Then, the chapter elaborates that the research basis for UDL is neuroscience. The chapter mentions that the principles of UDL are based on three networks of brain which are recognition, strategic and affective networks and introduces each network to the reader. Afterwards, the chapter highlights why UDL is necessary and draws attention to the fact that UDL lessens the barriers that learners with disabilities encounter in learning. The chapter stresses that UDL benefits from modern technology in conveying instructional practices and remarks that education becomes more flexible with UDL as UDL enables every individual with different characteristics to learn the same content in the best way that suits them.

Chapter 2 introduces the UDL guidelines and explains what their functions are. The UDL guidelines not only offer options for teachers that they can apply into their curricula for making sure that every student is learning, but also present solutions for the obstacles that students come across in current classrooms. Thus, the point which makes UDL different is that it offers a flexible curriculum addressing the needs of all students, instead of a one-size-fits-all curriculum. The chapter demonstrates that the UDL guidelines are accumulated around the three principles of UDL, which are respectively providing multiple means of representation, providing multiple means of action and expression, and providing multiple means of engagement.

Subsequently, the chapter explains the guidelines of each principle in detail. Accordingly, the chapter highlights that teachers should use various media in conveying information to students and options for language, mathematical expressions and symbols should be offered to reduce the challenges that students face. Students should be encouraged to engage in the creation of

the knowledge and options for physical actions should be offered for students whose motor skills are weak. Furthermore, options for expression and communication should be provided to students and students should be encouraged to critical thinking by stirring students' executive functions. Once applied, these guidelines mentioned above are helpful in eradicating the barriers inherent in a curricula.

Chapter 3 stresses the challenges that students experience in reading by showing the English language learners, who don't have the required English proficiency, as an example. Another example that the chapter gives is native speaker students whose vocabulary is less developed and background knowledge is less. Then, the chapter demonstrates how the UDL principles can be applied to reading comprehension instruction. Afterwards, the chapter gives examples of technologies that are designed in line with UDL principles and that are helpful for readers in improving their reading skills.

Chapter 4 lays emphasis on the significance of writing for academic success throughout the curriculum. The chapter elaborates that the UDL guidelines will help writers to choose from various directions while accomplishing a high quality writing and reflect their own point of view. Afterwards, the chapter draws attention that restrictions resulting from limited time, large class size and inflexible curriculum prevent students to discourse their writing with their teachers actively. Then, the chapter introduces MassONE writer, an online learning environment tool, composed of two parts, which are process writing and writer's workshop that back students in their writing practice efficiently. Afterwards, the unique features of MassONE, which diminish the obstacles and worry of writing, are introduced to the readers. Subsequently, why teaching with MassONE is advantageous for teachers are explained in this chapter. Then, the UDL strategies for teaching writing across the curriculum are discussed with examples.

Chapter 5 attracts notice on the potential obstacles that students with abilities and disabilities come across when dealing with science in the classroom. Thus, the chapter indicates that when technology is combined with the UDL guidelines students coming from different backgrounds can involve in science in the classroom effectively. Then, student examples showing how obstacles in learning science can be minimized with the UDL guidelines are portrayed to the readers. Also, in this chapter, the three principles of UDL are reflected in three categories of learning concerning science that are thinking in science, talking in science and doing in science. Afterwards, explanations are given for each category and it is demonstrated that technology along with UDL creates a cooperative environment for students in the science classroom.

Chapter 6 starts with why mathematics has importance in our lives and introduces the five features showing that a person is proficient in mathematics. Then, the chapter highlights that the three principles of UDL can eliminate the obstacles that students come across while learning mathematics. Afterwards, the chapter creates an understanding for the barriers that mathematics students face by introducing the barriers of conceptual understanding, procedural fluency, strategic competence, adaptive reasoning and productive disposition with examples. Subsequently, how these barriers can be overcome with UDL is explained. Consequently, the statement that "some students are just not good at math" becomes obsolete with UDL since every student can be successful in math with the help of UDL.

Chapter 7 gives an example from the subject of history that was designed in line with UDL principles and illustrates that the UDL approach of doing history is supportive to students in grasping the way professional historians think. It also helps students to challenge primary sources. The chapter elaborates that traditional curriculum materials lead students to only

memorize historical events without helping students to develop their skills. However, doing history the UDL way eliminates such barriers.

Chapter 8 begins with three case examples from different classrooms and demonstrates how the UDL framework can be used for arts instruction. The chapter puts emphasis on the issue that arts offer options for discovering content that incorporate well with other subject fields. Arts offering a rich set of tools especially help students to comprehend “big ideas” by using symbolism and metaphors. The three case examples from arts show that arts offer supplementary ways of learning to students. The case examples also illustrate how the UDL guidelines eliminate the curricular and instructional barriers encountered in classes related to arts.

Chapter 9 explores whether UDL can be implemented without technology as many teachers want to know whether UDL is about technology or about teaching. The chapter tries to give an answer to this question by scrutinizing the Seed Lesson as an example. This example reveals that the UDL guidelines can be implemented successfully without any technology. The chapter illustrates that UDL is chiefly about pedagogy.

Chapter 10 explains how to implement UDL in teacher preparation. The chapter indicates that UDL points out barriers in four parts of the curriculum that are the goals, methods, assessments and materials. Then, the chapter elaborates that UDL minimize curricular barriers by giving an example from the changing American classroom. The chapter mentions that UDL is a preliminary course, named as Collaborative Partnerships and Special Education, in a teacher preparation program in the USA. Then, the chapter explains the phases of this course in detail.

In conclusion, the book essentially emphasizes that UDL reduces the barriers that students from diverse backgrounds come across in learning to minimum. Furthermore, the book offers a rich explanation showing how UDL enhances learning opportunities of diverse students with its principles. The book repeatedly points that the UDL curricula takes the learner differences into consideration and provides a flexible learning environment helping all students. Thus, the book is ultimately a must-be and a vital guide for authorities in the field of education and it will be very supportive to school teachers and school administrators in redesigning their curriculum. The authors of the book demonstrates the benefits of using UDL by giving examples from a variety of classes such as math, science, history and arts. Educators who apply the UDL principles into their classes will notice that their students will be more successful in various subjects that are perceived to be difficult. UDL is indisputably a valuable paradigm that can make a big revolution in traditional classes.

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