

APPLYING THE PRINCIPLES AND GUIDELINES OF UNIVERSAL DESIGN FOR LEARNING (UDL) IN AN INCLUSIVE EDUCATION

Aisha Basiru Muhd Gwarzo

Department of Special Education Bayero University, Kano

Abstract

The principle of universal design for learning (UDL), facilitates greater accessibility to all learners, irrespective of their diverse special needs. It involves considering the potential needs of all learners when designing and delivering instruction by identifying and eliminating unnecessary barriers to teaching – learning process. However, teaching –learning process should be free and flexible to all. Though, universal design for learning (UDL) is a new paradigm in the educational framework, it advocates multiple means of accomplishing learning tasks for all learners. The three (3) main principles of universal design for learning are discussed they are: multiple means of representation; multiple means of action and expression; and multiple means of engagement. The paper also highlights eight (8) guidelines for adopting the principles of universal design for learning, some of which are: providing option for perception; providing option for language and symbols; providing option for comprehension; and providing option for expressive skills and fluency. Thus, universal design for learning and inclusive practice are integral to each other.

Introduction

Universal design (UD) is generally a concept that had been pioneered by architect and disability –right advocate Ronald Mace, (in the 1990s), who challenged the conventional approach of designing for the average user and provided a design foundation for more accessible and usable products and environments. Story Mueller and Mace (1998), developed the definition of universal design (UD) as:

“ the design of products and environments to be usable to the greatest extent possible by people of all ages and abilities”

Assistive Technology Act of 1998 defined universal design (UD pp 1) as.

“a concept or philosophy for designing and delivering products and services that are usable by people with the widest range of functional capabilities, which include products and services that are directly accessible(without requiring assistive technologies) and products that are interoperable with assistive technologies”

Universal design (UD) has been applied to many educational products (such as computers, software, textbooks, etc) and environments (such as classrooms, libraries, dormitories, etc), thus the practice of universal design in education (UDE) considers people with a wide range of characteristics, it goes beyond accessible design for people with disabilities to make all aspects of the educational experience more inclusive for students, parents, staff, instructors administrators and visitors with a great variety of characteristics (Burgstahler, 2007)

Universal design for learning (UDL)

The Centre for Applied Special Technology (CAST) focuses its efforts on universal design for learning (UDL), especially as it applies to technology- based curriculum; CAST defines universal design for learning (UDL) as:

“ A research =based set of principles that together from a practical framework for using technology to maximize learning opportunities for every students”
(Rose and Meyer, 2002)

Universal design for learning is a way to help all students not just those with disabilities, to access the curriculum in nonstandard ways. Most often, universal design for learning has technology at the core of its solution to finding increased ways for students to approach and participate in instruction. Universal design for leaning varies from typical special education techniques (Bremer, Clapper, Hitchcock, Hall and Kachgal, 2002)

The goal of universal design for learning is for more students to be able to access the content of instruction, thereby reducing the number of students who need special accommodation and supports. It provides people with special need greater access to the community by removing or reducing barratries found in the environment (Smith, 2007) The techniques of Universal design for learning as indicated by Smith (2007) are:

- i. Unlike accommodations and modifications made for students with disabilities, universal design creates alternatives open to all students.
- ii. Universal design techniques are not added to the instructional routine, but rather are part of the standard delivery of instruction.
- iii. Multiple and flexible methods and options of presentation, expression, and engagement are provided (Smith, 2007, pp42)

Principles of Universal Design for Learning (UDL)

Universal design for learning (UDL) is a new paradigm for teaching, learning and assessment, and for this new paradigm to be well established in the field of inclusive education, schools need flexible materials in terms of curriculum developers, policies /goals, instruction and assessment, and professional development for teachers (Hitchcock and Stahl (2003). The three main principles of universal design for learning address representation, expression and engagement; these are:

- i. Multiple means of representation; to give learners various ways of acquiring information and knowledge; provide options for perception, language and symbols and comprehension.
- ii. Multiple means of action and expression; to provide learners with alternatives for demonstrating what they know; provide options for physical action, expressive skills and fluency, and executive functions.
- iii. Multiple means of engagement; to tap into learners interests, offer appropriate challenges, and increase motivation; provide options for recruiting interest, effort and persistence and self-regulation (Centre for Applied Special Technology CAST, 2010).

Guidelines for Adopting Universal Design for Learning.

The guidelines of universal design for learning are organized according to the three main principles (outlined above). These guidelines are meant not to be a prescription, but rather a set of strategies that can be employed to overcome the barriers inherent in most existing curricula. They may serve as the basis for building –in the options and the flexibility that are necessary to maximize learning opportunities for all students. The following are the guidelines:

- i. Provide option for perception:- the same information can be expressed through visual, auditory, or other sensory inputs; using digital text and materials help to increase the accessibility of information for learners, who can then manipulate the material’ to suit their learning needs
- ii. Provide option for language and symbols:- graphs charts, pictures and vocabulary can all be interpreted differently. It is an important strategy to ensure alternative representations are provided, allowing for accessibility and comprehension for all types of learners
- iii. Provide options for comprehension-giving students a wealth of resources to learn can be done by a website or a library. Constructing usable knowledge that is accessible for future decision making.
- iv. Provide options for expressive skills and fluency-this guideline tells us that alternative modalities for expression should be provided to all student and the full range of different modes of media that are important for communication and literacy.
- v. Provide options for executive functioning the executive functioning skills are associated with the pre-frontal cortex or the brain and there are ways to help break down information to assist these students and others
- vi. Provide options for reuniting interest this guideline make it clean that if students are not engaged in the content, then the information being presented is inaccessible. What makes engaging students especially difficult is that everyone has his /her own learning goals, interest, backgrounds; and each one is likely to be motivated by different things

-
- vii. Provide options for sustaining efforts and persistence -motivation for learning, the capacity to learn, the capacity to handle disparities in their lives and irregularities in learning environments, often differ from student to student. Building into a class the opportunity for students to self – regulate and determine their own goals and skills to sustain their attention.
 - viii. Provide options for self regulation- while it is important to design the extrinsic environment so that it can support motivation and engagement, it is also important to develop students intrinsic abilities to regulate their own emotions and motivations. A successful approach, therefore requires providing sufficient alternatives to support learners with very different aptitudes and prior experience in learning to effectively manage their own engagement.

Conclusion

The goal of education is not simply the mastery of knowledge, but rather the mastery of learning. Teaching-learning is supposed to turn novice learners into active experts learners who know how to learn, what to learn and when to learn, so as to be well prepared for a lifetime learning. Universal design for learning (UDL) advocates free and appropriate teaching-learning, accommodating all learners in a suitable learning environment, so that the diverse individual learning needs are adequately and appropriately designed, providing multiple options towards achieving the desired objectives of teaching –learning process. In essence, universal design for learning (UDL) facilitates the inclusion process of all learners.

References

- Bremer, C. D., Clapper, A. T., Hitchcock, C., Hall, T., and Kachgal, M., (2002). Universal Design: A strategy to support students' access to the general education curriculum. Information Brief: Addressing trends and developments in secondary educational transition, 1, 1-5
- Burgstahler, S. (2007)a Equal access: Universal design of instruction. Seattle: University of Washington. Centre for Applied Special Technology (CAST). <http://www.cast.org/udll>. Retrieved on 06/11/2014
- Hitchlock, C. and Stahl, S. (2003). Assistive technology, universal; design, universal for learning: Improved Learning opportunities. Journal of Special Education Technology, 8, 45-52
- Principles and Guidelines of Universal design for learning. Retrieved from www.uvm.edu/.../submenu.html on 06/11/2014
- Rose, D.H., and Meyer, A. (2002). Teaching every student in the digital age: Universal design for learning. Alexandria VA.

Association for Supervision and Curriculum Development.
Smith, D.D. (2007). Introduction to Special Education- Making a Difference (6th ed.) Boston: Person Education

Story, M.F Mueller, J.L., and Mace R.L. (1998) The universal design file: Designing for people of all ages and abilities. Raleigh, North Carolina State University.