



# Universal Design for Learning for Diverse Learners in Inclusive Education

**Ravi Kumar**

Faculty of Behavioural Science, Department of Special Education, Shree Guru Gobind Singh Tricentenary University, Gurugram, Haryana, India.

**Abstract:** The Universal Design for Learning (UDL) framework can be used to proactively design lessons that address learner variability. Using UDL guidelines, teachers can integrate flexible options and supports that ensure that teaching-learning are accessible to a range of diverse learners in their classrooms. This article presents a theoretical and process that teachers can use as they understand the conceptual and implementation of principles and framework of UDL for diverse learners. By “unwrapping” academic standards and applying UDL during the lesson planning process, teachers can identify clear goals aligned with an academic standard and develop flexible methods, assessments, and materials that address the needs and preferences of diverse learners. General educators and special educators can use this process to develop inclusive lesson plans that address all learners, with and without disabilities.

**Keywords:** Inclusive Education, Diverse Learner, Universal Design for learning

## Introduction

Universal Design was conceived by Ronald Mace in 1970 to architectural design for the purpose of removing obstacles. In 1990, David Rose, Anne Meyer other researchers and scholars at the Centre for applied special technology (CAST) began student access to curriculum and Instruction than came to Universal Design of Learning framework. Universal design of Learning is a framework that provides all students equal opportunities to learn. It encourages teachers to design flexible curriculum that meet the need of diverse learners come to the classroom with a variety of needs, skills, talents, interest, and experiences.

## Background on UDL

Previous generation of general education teachers often did not provide instruction to students with disabilities, and course work related to this population was only provided by special educators (Ann.S. Ananin, 2009). The study suggests that UDL is an efficient approach in designing flexible learning environment and accessible content. Such design can match a wide mix of learner needs, abilities, background knowledge, educational experiences, and cultural differences. (Azwei, A.A. et al 2010). IDEIA (Individuals with Disabilities Education Improvement Act, 2014). Disabilities in Education Act (IDEA) amendments of 1997 supported this initiative to ensure access to the general curriculum for students with disabilities. In addition, the reauthorization of IDEA, also known as the Individuals with Disabilities in Education Improvement Act (IDEIA), increased the need for teachers to be better prepared to teach students with disabilities in order to improve outcomes for those students. The IDEIA also requires that students with disabilities be included in state programs of accountability (Stephanie A. K. 2006). “Universal design” means the design of products, environments, programs and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. “Universal design” shall not exclude assistive devices for particular groups of persons with disabilities where this is needed (UNCRPD, 2006). “Universal design” means the design of products, environments, programs and services to be usable by all people to the greatest extent possible, without the need for adaptation or specialized design and shall apply to assistive devices including advanced technologies for particular group of persons with disabilities (RPwD Act, 2016).

### This framework includes seven basic principles:

- Equitable use: people diversity and ability should be considered in the design process.
- Flexibility in use: individual preferences and abilities should be served.
- Simple and intuitive use: the design should be easily understood regardless of user prior experience and knowledge.
- Perceptible information: the design should communicate necessary information effectively to all users irrespective of their ambient conditions or sensory abilities.
  - Tolerance for error: the design should reduce and minimize risks and errors of unintended actions.
  - Low physical effort: the design should minimize the required physical effort to be used efficiently and comfortably.
  - Size and space for approach and use: the design should provide an appropriate size and space irrespective of user's body size, posture, and/or mobility.

### The framework can be divided into two layers:

- (a) The conceptual layer (three networks)
- (b) The implementation layer (three principles).

### The three networks are defined as follows:

1. **Recognition network:** This represents the 'what' of learning. Learners use different ways to categories' what they see, hear, and read.
2. **Strategic network:** This represents the 'how' of learning. Learners use different ways to organize and express their thoughts and ideas.
3. **Affective network:** this represents the 'why' of learning. Different ways can be applied to engage learners and keep them excited and interested (Azwai Al Ahmed et al. 2016).

The three main Principles are defined as follows:

1. **Provide multiple means of representations:** this principle suggests presenting learning content in different ways, for instance, video, audio, text, graphs, and other multimedia. This can provide better opportunities not only for disabled learners, but for others as well.
2. **Provide multiple means of action and expression:** most learners do not prefer the exclusive use of exams to assess their understanding and knowledge, because of the restricted time and organizational setting of this measurement. Therefore, asking students to express their knowledge in other formats such as assignments, interviews, short quizzes, scientific papers, and multimedia presentations can reflect their knowledge more effectively than using one measurement.
3. **Provide multiple means of engagement:** using only a lecture format may negatively affect learner engagement. Hence, in order to maintain levels of interest during the active-lecture, other strategies can sustain student motivation, for example, delivering learning content by open discussion, Q & A sessions, peer-tutoring, and an applied problem-solving approach. (Azwai, A.A. et al. 2016).

### What does UDL look like in the classroom?

Universal design can be found just about anywhere you look — both inside and outside your school. Curb cuts change sidewalks so that they are accessible to the greatest range of users, including people who use wheelchairs and those pushing strollers. Closed captions make television accessible to people who are deaf or who have hearing loss, as well as people at the gym or spouses who can't agree whether or not to keep the TV on at night. No two forms of universal design are the same.

Universal Design for Learning looks different in every classroom. But there are commonalities. To start with, there's always a focus on building expert learning for all. Other common elements of a UDL experience include:

- All learners knowing the goal
- Intentional, flexible options for all students to use
- Student access to resources from the start of a lesson
- Students building and internalizing their own learning

In a UDL environment, students rarely do the same task in the same way at the same time. The flexible options will differ across developmental ages. But the framework for having clear goals and flexible options is consistent no matter the grade level or content areas. (www.understood.org)

### Conclusion:

The Universal Design for Learning for Diverse Learners as they set the stage for interactive dialogue as well as for appreciating diversity that contributes to the creation of equal opportunities and the development of appropriate school ecology for inclusive education. By considering UDL during the planning process and adding in flexible pathways to reaching the learning goals, teachers can reduce barriers that exist in curricula and increase opportunities that allow all learners to reach the same high standards.

### References

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**Web-links:**

<https://www.opensocietyfoundations.org/explainers/value-inclusive-education>

<https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-2-definitions.html>

<https://www.understood.org/articles/en/understanding-universal-design-for-learning>

