

Universal Design of Learning

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The diversity and diverse identities

Diversity- Recognizing and respecting individual differences from the dimensions of

- geographical location,
- gender identity,
- age groups,
- cuisine,
- clothing and attire,
- style and standard of living,
- habitat, cultural milieu,
- socio-economic status,
- abilities and qualities,
- linguistic expression,
- educational background,
- religious beliefs,
- political ideas,
- trade/work experiences or
- many other demographic and philosophical ideologies.



The diversity and diverse identities

Diverse identities- As defined in NEP2020 (para 6.2)

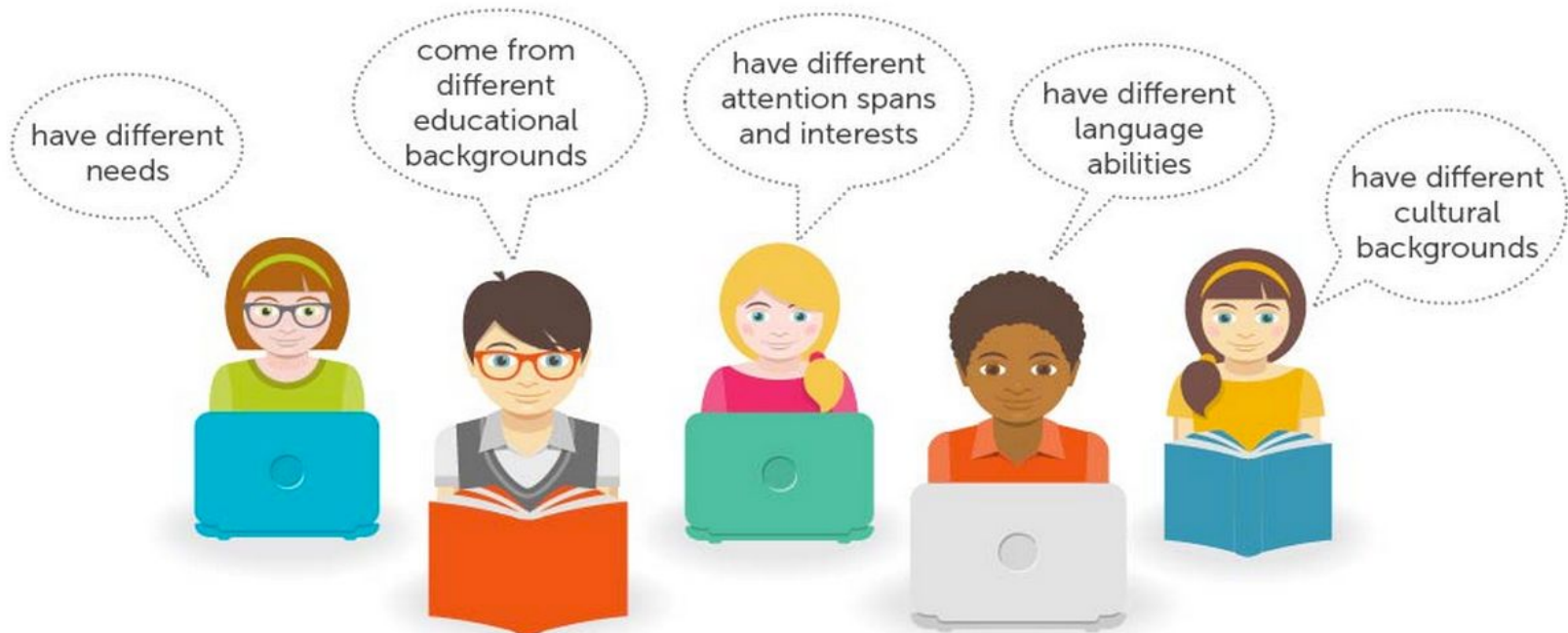
-Socio-Economically Disadvantaged Groups (SEDGs)

- **Gender identities** –male, female and transgender individuals
- **Socio-cultural identities** - Scheduled Castes, Scheduled Tribes, OBCs, and minorities)
- **Geographical identities**-students from villages, small towns, and aspirational districts
- **Disabilities**
- **Socio-economic conditions** -migrant communities, low income households, children in vulnerable situations, victims of or children of victims of trafficking, orphans including child beggars in urban areas, and the urban poor
- Children belonging to disadvantaged groups and weaker Sections (RTE Act)

Why to adapt curriculum?

WHY DIFFERENTIATED INSTRUCTION?

Classrooms are filled with students who:



What does adaptation mean?

- An adaptation is an intervention that **retains the learning outcomes of the prescribed curriculum** and is implemented so that students can more **effectively or productively participate** in the classroom programme.
- **There is no recipe for adapting general education curriculum to meet each student's needs.**
- Each teacher, each student, each classroom is unique and adaptations are specific to each situation. Supports for one student may not necessarily be the same in all situations/content areas.
- Adapting a lesson may not always be necessary.

Curriculum adaptation

- It is a process of making necessary changes in learning content such as
 - modification,
 - substitution/ replacement,
 - compensation,
 - omission
- without changing the learning purpose.

Accommodations

With accommodations, the students are working on the same instructional objectives and content as the other students, but **how the students learns** and the **ways they demonstrate what they have learnt** may be different from that of their peers.

Accommodations can include changes in the followings:

- Presentation and/or response format and procedures.
- Instructional strategies
- Time and scheduling
- Environment
- Equipment

Modifications

Modifications are **substantial changes** in what a student is expected to learn and demonstrate that are based on individual's needs and abilities.

Modification might include changes in

- Instructional level
- Content
- Performance criteria

Difference between Accommodations & Modifications

Accommodations

do not alter expectations or standards in instructional level, content or performance criteria.

Changes are made to provide equal access to learning and equal opportunity to demonstrate what is known.

Grading is same for all learners.

Examples: Providing large size print, alternate assignments, highlighting key points, peer note-taking, use of computer for writing etc.

Modifications

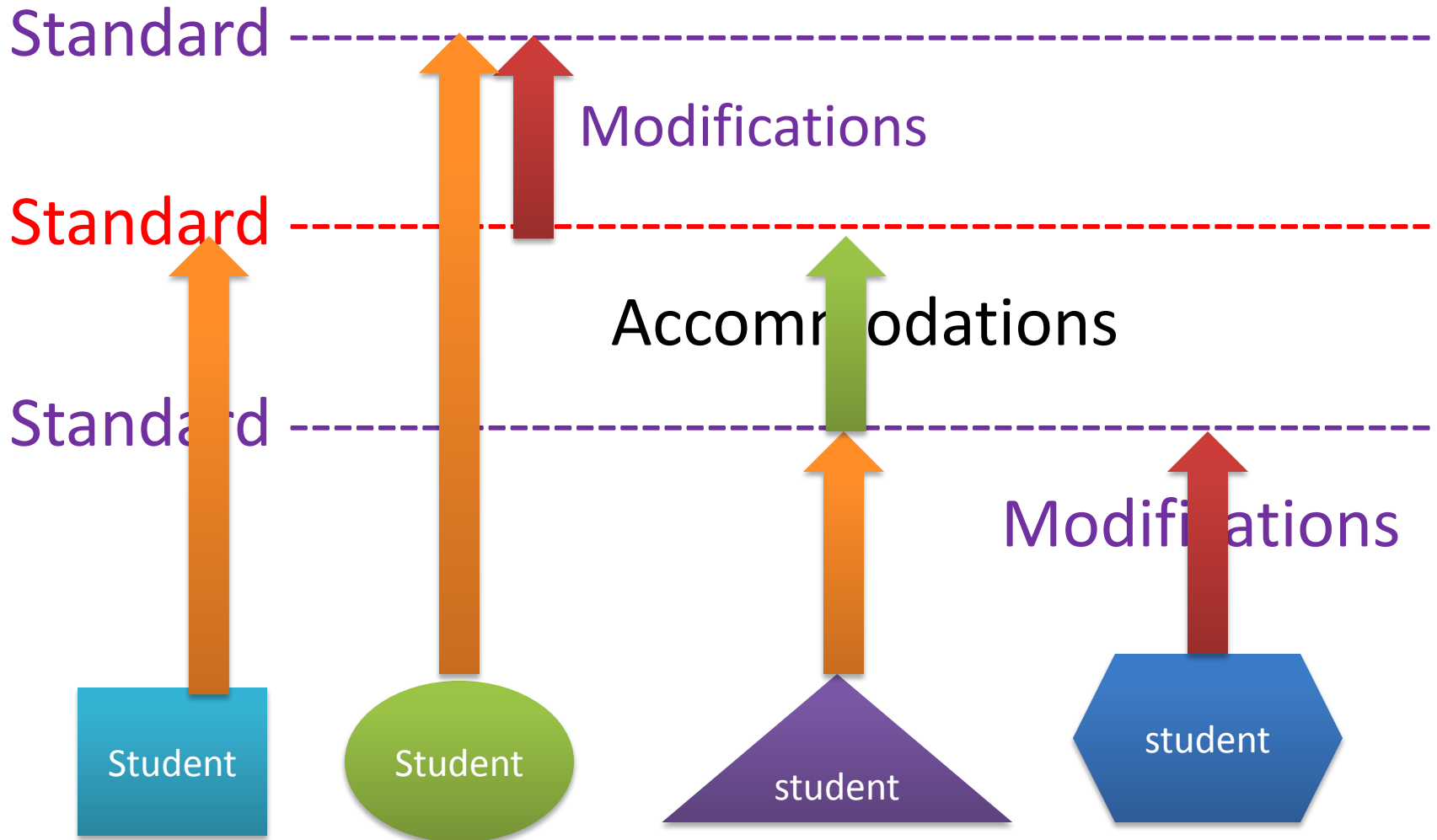
Alter expectations or standards in instructional level, content or performance criteria.

Changes are made in order to provide student meaningful and productive learning experiences based on individual needs and abilities.

Grading is different according to the levels of functioning of learners.

Examples: Outline for an essay, Pictorials in place of paragraphs/stories, spelling support from spell check, word bank choice, projects for a written work etc.

The Rubber Band Theory of Adaptations



Source: Adapted diagram based on Wood (1998) theory

State: True/False

1. All children with disabilities need adaptations.

✓

X

State: True/False

2. Adaptations benefit children with and without disabilities.



State: True/False

3. There are fixed ways or guidelines for adapting curricula.

✓

X

State: True/False

4. Adaptations means use of expensive technology or use of visuals.

✓

X

State: True/False

5. Adaptation of curriculum means simplifying text or supporting it with visuals.

✓

X

State: True/False

1. All children with disabilities need adaptations.(X)
2. Adaptations benefit children with and without disabilities.(√)
3. There are fixed ways or guidelines for adapting curricula. (X).....(there is no set recipe)
4. Adaptations means use of expensive technology or use of visuals.(x)..... (Not always)
5. Adaptation of curriculum means simplifying text or supporting it with visuals. (x).....(as per the need)

The Funnel approach of adaptation



- Try the general curricula first.
- Try minor changes and minor support.
- Try smaller steps i.e. small chunks of content at a time and
- then gradually expand.

Traditional Classroom

Differences are seen as **problematic and challenging**.

Assessment is done **at the end** of learning session.

Coverage of curriculum determines instruction.

Focus on **whole class instructional approach**

Mainly, **single text-material** is provided.

Differentiated Classroom

Differences are studied as a **basis for planning**.

Assessment is on-going process and diagnostic to make instruction responsive to learner's needs.

Student's readiness, interest and learning profile shape instruction.

Many instructional arrangements are used.

Multiple materials in different formats are provided.

Differentiated instruction

- A process of teaching and learning for students of differing abilities in the same class.
- Differentiated instruction is based on modification of three elements:
 - Content: adapting the content as per the student's needs
 - Process: individualized, paired, small and large groups
 - Assessment of outcome: oral, written, signed, digital, graphic, audio-visual, pictorial, video etc.

Differentiated Instruction

Conceptual Understanding

An instructional model that provides guidance for teachers in addressing **student differences in readiness, interest, and learning profile** with the goal of **maximizing the capacity** of each learner.

(Tomlinson, 2018)

Strategies

Content: modifying what is taught.

Process: modifying how it is taught.

Assessment: modifying how it is assessed.

Learning environments: modifying the context of learning.

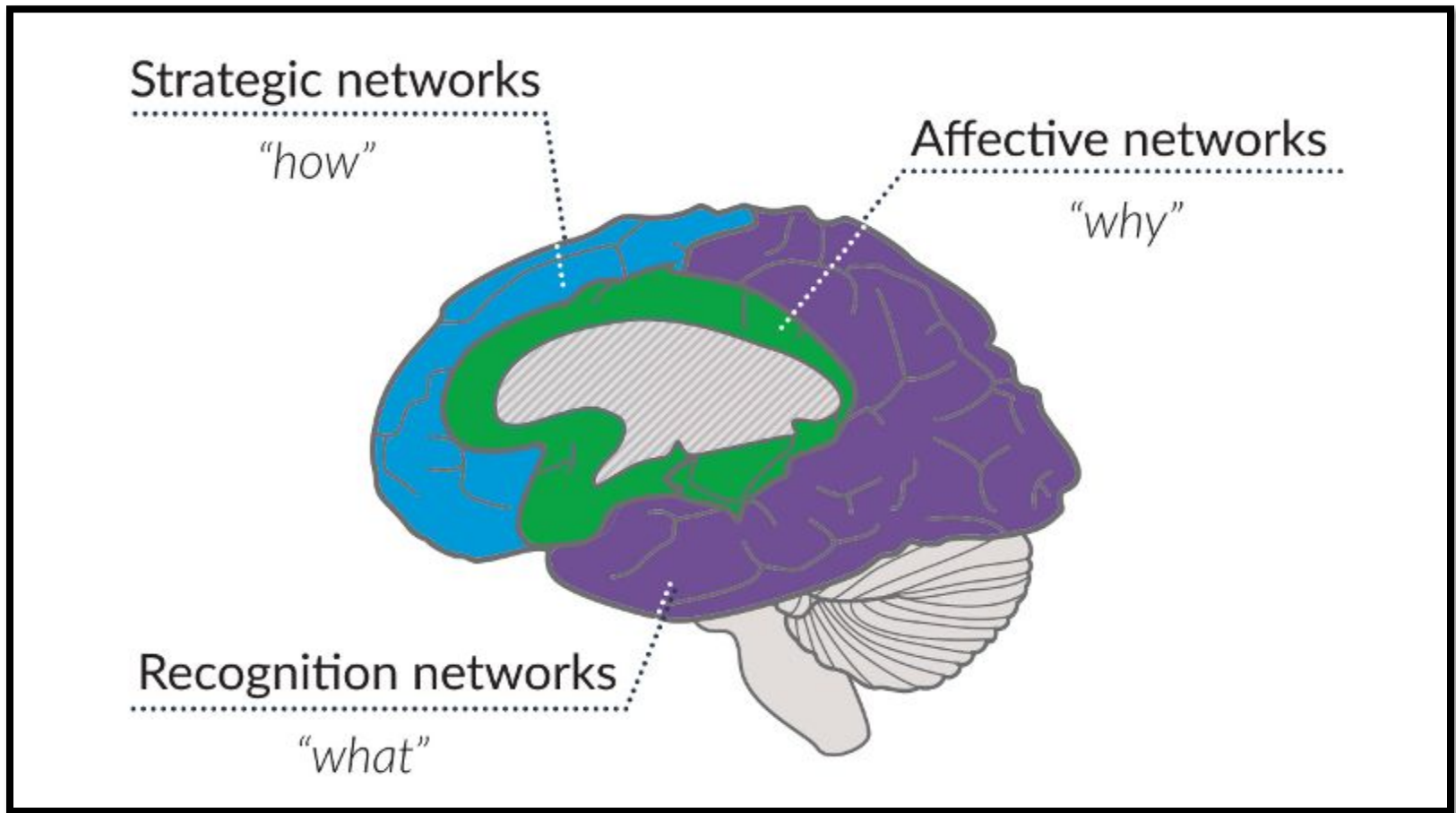
Universal Design for Learning (UDL)

- Offers students a “buffet” of options.
- Options are offered by the teacher but not individualized for specific students.
- Students are intended to become self-directed learners and choose the options.
- Students learn to take responsibility for their learning.

Principles of Universal Design (Connell et al. 1997) and its application to UDL

Principles	Definitions
1. Equitable use	<ul style="list-style-type: none">• Useful and accessible instructions
2. Flexibility in use	<ul style="list-style-type: none">• Provide choice in methods of use.
3. Simple and intuitive	<ul style="list-style-type: none">• Straightforward and spontaneous manner, complexity is eliminated.
4. Perceptible information	<ul style="list-style-type: none">• Necessary information is communicated effectively.
5. Tolerance for error	<ul style="list-style-type: none">• Corrects the occurring errors or allow easy error correction.
6. Low physical effort	<ul style="list-style-type: none">• Minimize nonessential physical effort.
7. Size and space for approach and use	<ul style="list-style-type: none">• Consideration for appropriate size and space.
8. A community of learners	<ul style="list-style-type: none">• Interaction and communication among students and between students and teachers.
9. Instructional climate	<ul style="list-style-type: none">• Instruction is designed to be welcoming and inclusive.

UDL emphasizes on three brain networks-focusing on representation, action and engagement



Universal Design of Learning

- Presentation : Presentation of information in view of equal access to all learners.
- Expression/communication: Equal opportunities for expression to all learners
- Participation: Increase opportunities and motivation to participate in learning activities.

A Vertical Framework of UDL

UDL Learning Guidelines : The Vertical Framework

Provide multiple means of Engagement

Affective Networks
The "WHY" of Learning



- Provide learners with **autonomy** by allowing learners to participate in the design of classroom activities and academic tasks
- Make the content **relevant** so that it can be personalized and contextualized to learners' lives
- Create an **accepting** and supportive classroom climate

Provide multiple means of Representation

Recognition Networks
The "WHAT" of Learning



- Display information in **flexible format** by varying the size of text, images, contrast between background and text
- Use **tactile** graphics for key visuals
- Provide **descriptions** for all images, graphics, video, or animations
- Provide physical objects and spatial **models**

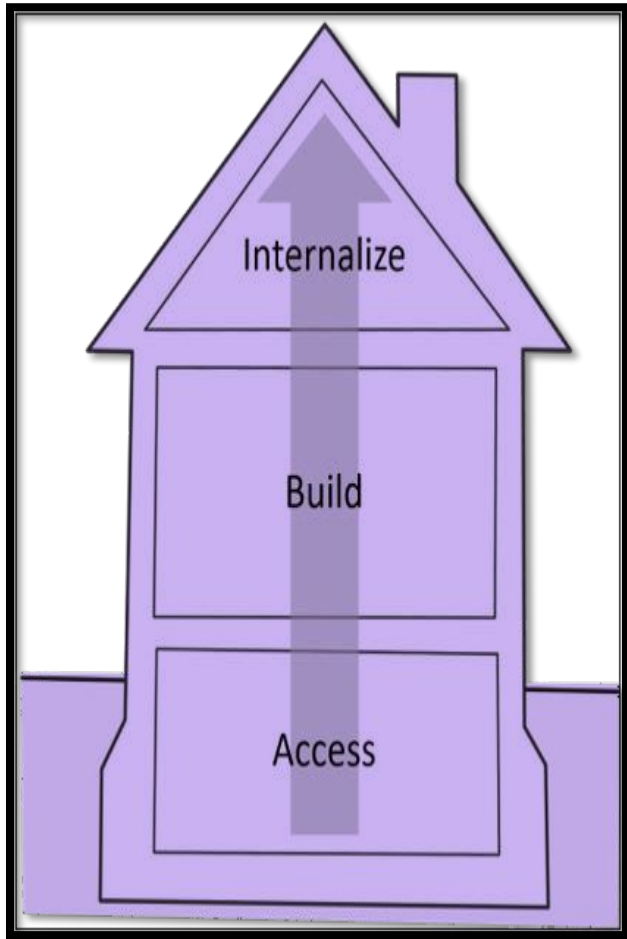
Provide multiple means of Action & Expression

Strategic Networks
The "HOW" of Learning



- Provide **alternate means** of response for physically interacting with materials by hand, voice, keyboard, or adapted keyboard
- Allow learners to compose in **multiple media** such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance/movement, visual art, sculpture, or video

The Horizontal Framework of UDL



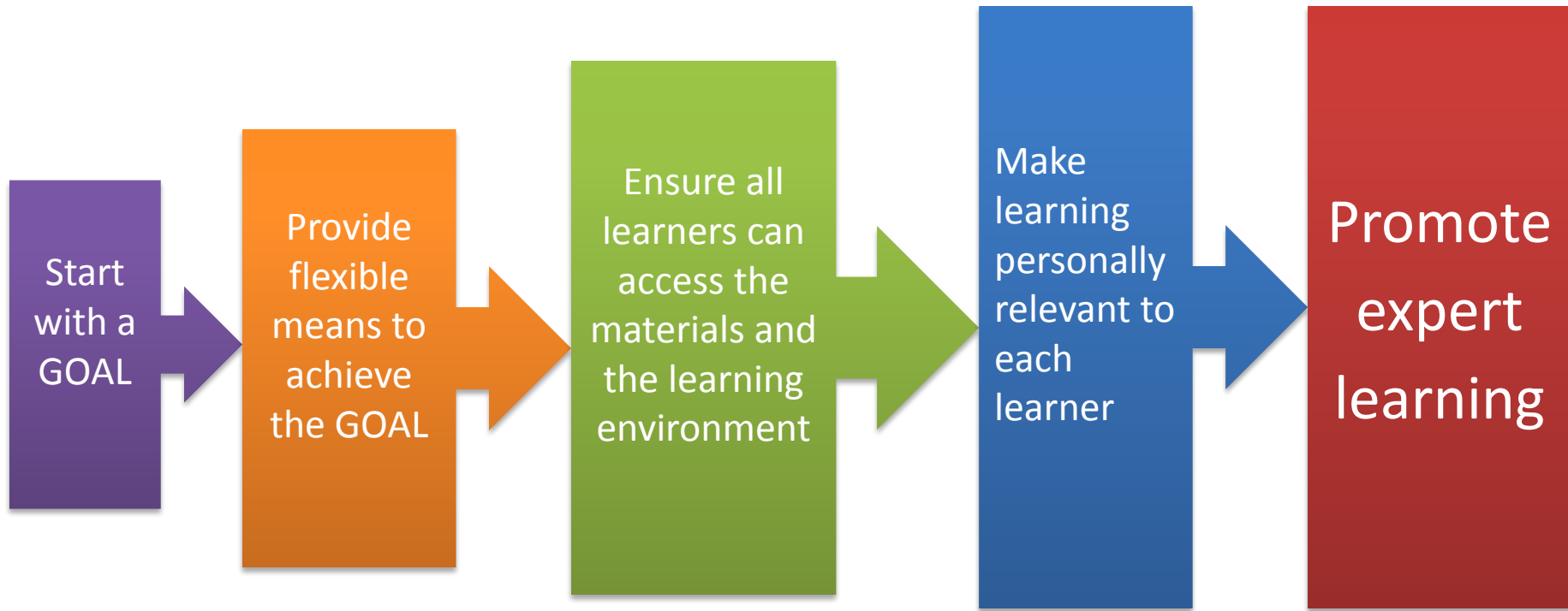
Access- to increase access to the learning by generating interest and offering options for perception and physical action.

Build- to develop effort and persistence, language and symbols, and expression and communication.

Internalize- to empower learners through self-regulation, comprehension, and executive function.

Source: Gronseth 2018

The steps of designing a learning activity based on UDL



UDL and DI

- **Plan the lesson in anticipation to learners' needs.**
- **Inbuilt methods of differentiation in the lesson**
- **During lesson planning.**

- **Modifications in response to learners' needs.**
- **Preferences as identified during and after instruction**
- **During instructions.**

- **Meet individualized needs.**
- **Provide access to same quality contents.**
- **Create high supported engaging learning environment.**
- **Provide multiple options to develop and express their knowledge and skills.**
- **Inculcate strategic learning.**
- **Assess learner's progress during learning and accommodate as needed.**

State True/False

1. Students need to be grouped based on their competencies, while applying UDL based teaching-learning in the classroom.

✓

X

State True/False

2. It takes too long to find out who needs what.

✓

X

State True/False

3. UDL helps in understanding the students individual needs.

✓

X

State True/False

4. UDL requires different lesson planning for class of 30 students.

✓

X

State True/False

5. UDL can't be practically feasible to apply in the classroom.

✓

X

State True/False

6. UDL is not applicable in my class as there are no students with disability in my class.

✓

X

State True/False

1. Students need to be grouped based on their competencies, while applying UDL based teaching-learning in the classroom. (x)
2. It takes too long to find out who needs what. (x)
3. UDL helps in understanding the students individual needs. (√)
4. UDL requires different lesson planning for class of 30 students. (x)
5. UDL can't be practically feasible to apply in the classroom. (x)
6. UDL is not applicable in my class as there are no students with disability in my class. (x)

