

NATIONAL DISABILITY CONFERENCE

NOVEMBER 30, 2021
8:30AM - 4:00PM



Ministry Of Human Development,
Families & Indigenous Peoples' Affairs



DISABILITY AND EDUCATION

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SOCIAL ENVOYS

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Program

Objectives:

- Discuss the relationships between parts of the brain and common human tendencies in an effort to arrive at an understanding of brain functions that influence varying levels learning abilities.
- We will look at three specific types of disabilities ASD- Giftedness, ADHD-Dyslexia, and reflect on the relevance of this information to our own classroom practices
- Introduce UDL concept as a way of rethinking our classroom practices.

UNESCO REPORT 2010 Convention on the Rights of Persons with Disabilities

- Article #7
- 1. States Parties shall take all necessary measures to ensure the full enjoyment by children with disabilities of all human rights and fundamental freedoms on an equal basis with other children.
- 2. In all actions concerning children with disabilities, the best interests of the child shall be a primary consideration.
- 3. States Parties shall ensure that children with disabilities have the right to express their views freely on all matters affecting them, their views being given due weight in accordance with their age and maturity, on an equal basis with other children, and to be provided with disability and age-appropriate assistance to realize that right.

World health Organization 2012

- According to the National Youth Development Policy of Belize, there is no specific legislation that addresses the status of disabled young people and their rights to health, education, development, training, rehabilitation, recreation and care.

The National Resource Centre for Inclusive Education (NaRCIE)

National Resource Center for Inclusive Education (NaRCIE), inclusive education is based on the affirmation of the right to equal education for every person to learn within his or her own community

NaRCIE was established to ensure equitable access to education for children with physical, developmental, intellectual and learning disabilities. The NaRCIE works in partnership with school personnel, families, and religious, government and non-governmental organizations to develop school communities that nurture and appreciate the diverse learning needs of all students.

The 2010 Education and Training Act

- determined that the Ministry of Education shall ensure equitable access for both sexes to education at all levels and that provision of education is sensitive to the particular needs of both males and females and **caters for the special needs of challenged pupils.**

2011-2016 Education Sector Strategy

- acknowledged that opportunities to access education are not uniform across Belize: ‘where you live and to some extent your gender, ethnicity and, more strongly, your economic status will strongly influence those opportunities, particularly at pre-primary and post primary levels.’ Therefore, the strategy aimed at increasing equitable access to all levels of education.

The Education Rule 2012 Amendment

- uses the term ‘exceptional populations’ to refer to children who are educationally underserved, are socio-economically disadvantaged or have special needs.

Government expenditure on education, total (% of GDP) (Sept 2021)

Belize	2020 - 7.9
Barbados	2020 - 4.3
Bahamas	2020 - 2.5
Jamaica	2020 - 5.4

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Consider the students who has deficits in ability to find patterns that facilitate learning. (Thompson, 2020)

Brain Mind Relation

Frontal Lobe

Planning
Reasoning
Problem solving
Morality
Personality
Social Skills
Recognising and
Regulating Emotions
Motor Functions
Motor speech area
of Broca

Parietal Lobe

Recognising sensation,
body position and objects
Sense of time and space
Reading and Comprehension area
Association between
functions of other
lobes

Temporal Lobe

Understanding
Language
Hearing
Speech
Memory
Learning
Sensory speech area
of Wernicke

Occipital Lobe

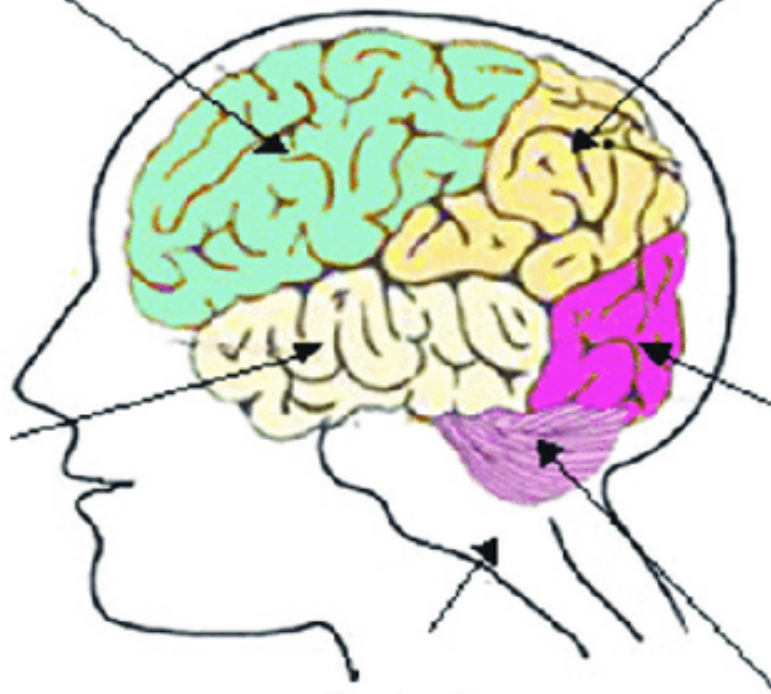
Vision and Integrating
visual information
(colour, shape and
distance)

Brain Stem

Regulation of heart
beats, respiration,
body temperature
and other essential
body functions

Cerebellum

Balance
Muscular co-ordination



Autism Spectrum Disorder

- .
- Autism spectrum disorder (ASD) is a developmental disability that can cause significant social, communication and behavioral challenges

- <https://www.cdc.gov/ncbddd/autism/facts.html>

INSIDE THE AUTISTIC MIND

MIND THE GAP

Things go wrong with the way brain cells 'talk' to each other across tiny gaps called synapse



AUTISM ANOMALY

Found in frontal lobe (planning), amygdala (emotion) and hippocampus (learning)



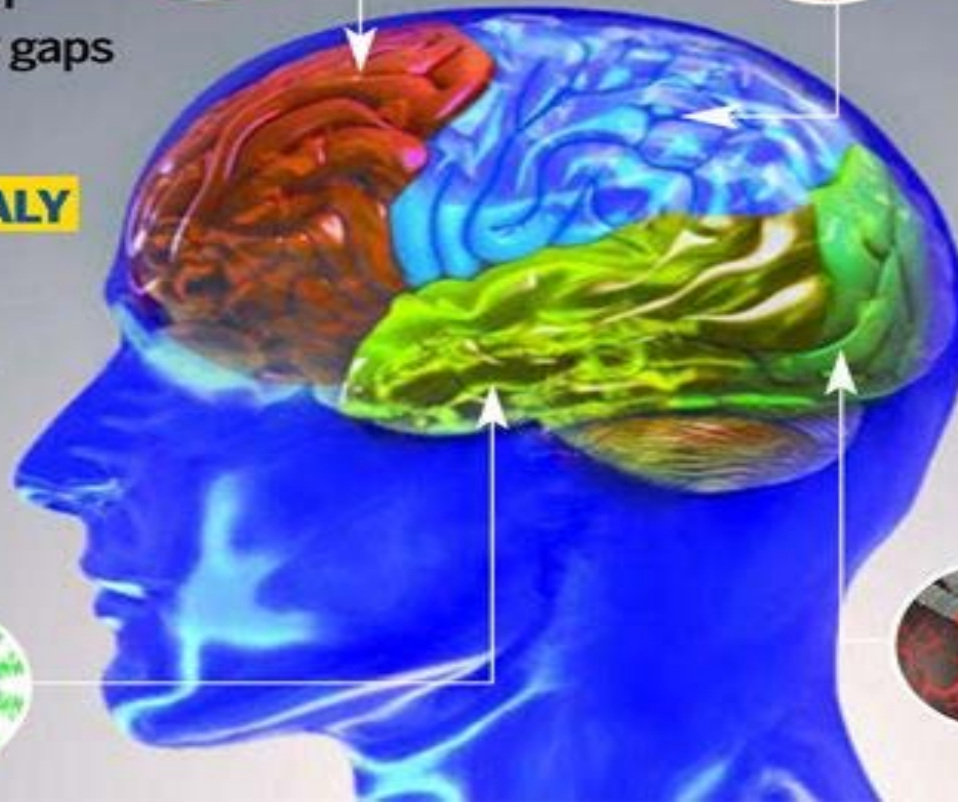
NOT IN SYNC

When the brain processes information, some signals are just noise. An autistic brain finds it difficult to distinguish vital signals from noise.



FRAGILE GENES

Genetic mutation in X chromosome, a common cause. Explains why autism tends to run in families.

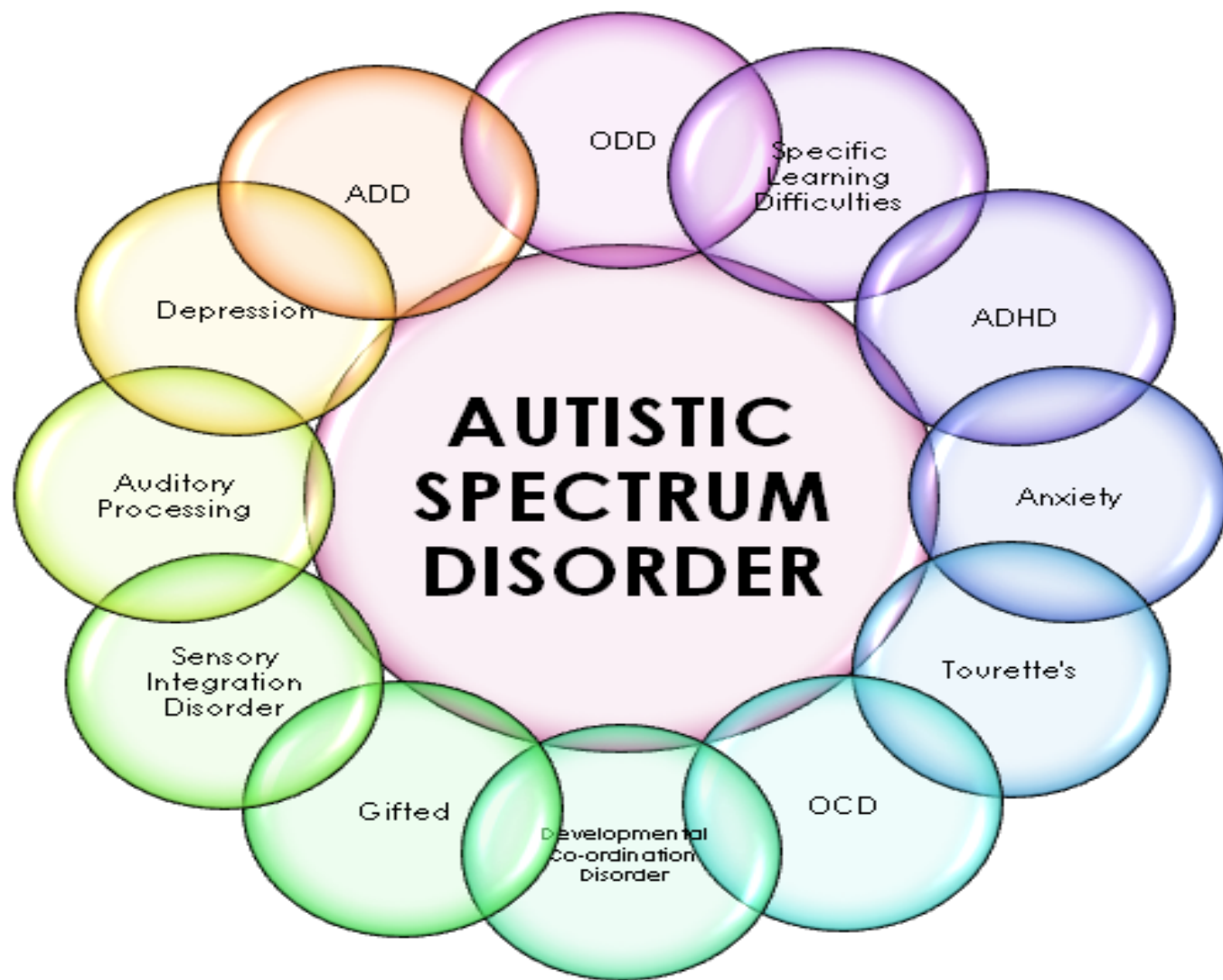


ASD- Physical appearance

- There is often nothing about how people with ASD look that sets them apart from other people, but people with ASD may communicate, interact, behave, and learn in ways that are different from most other people.

ASD- Abilities

- The learning, thinking, and problem-solving abilities of people with ASD can range from gifted to severely challenged. Some people with ASD need a lot of help in their daily lives; others need less.



Bright Child vs. Gifted Child

Bright Child

- Knows the answers
- Has good ideas
- Works hard
- Answers the questions
- Is interested
- Is attentive

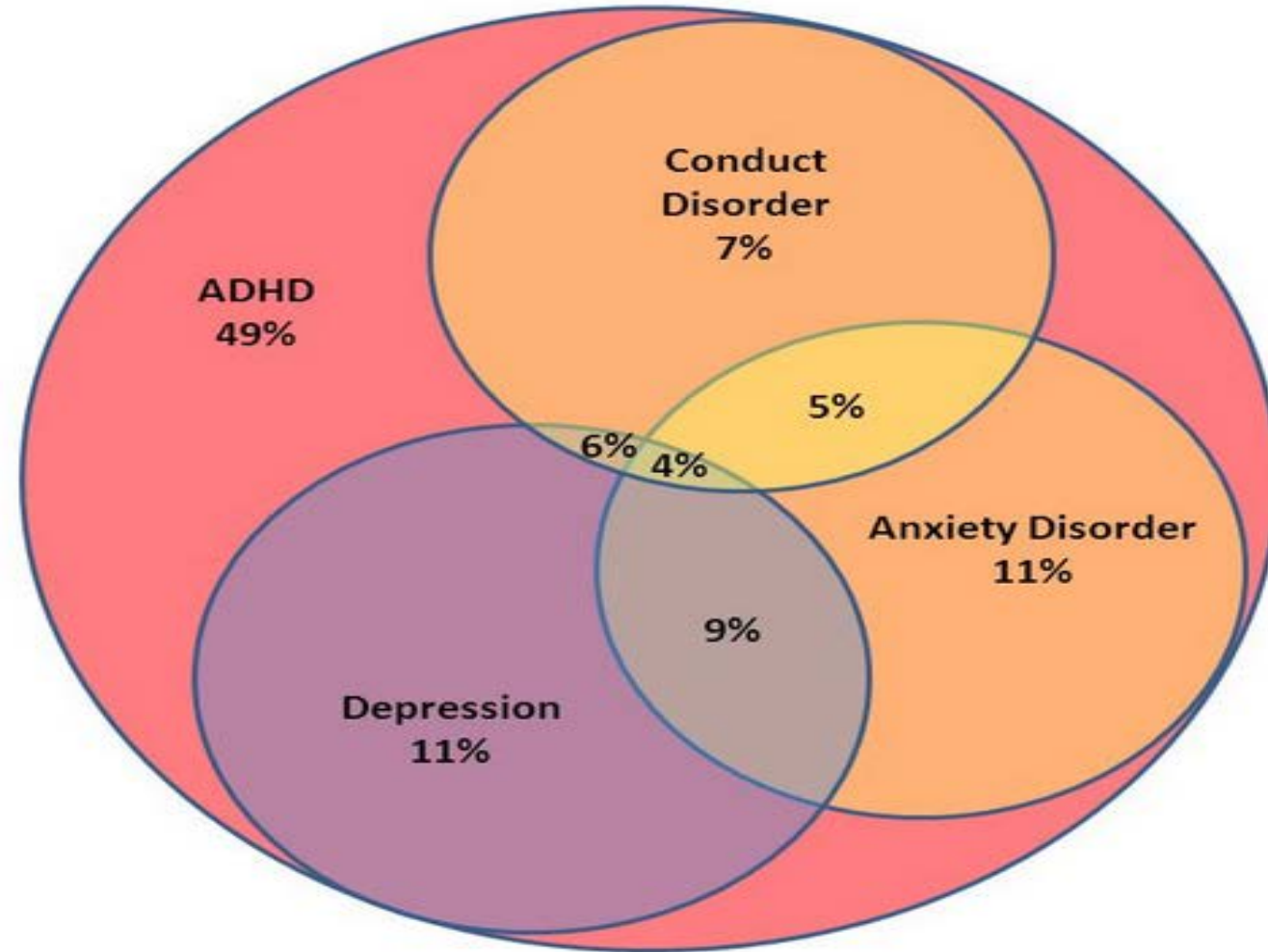


Gifted Child

- Asks the questions
- Has wild, silly ideas
- Plays around, yet tests well
- Already knows
- Is highly curious
- Is inattentive



Comorbidities with ADHD



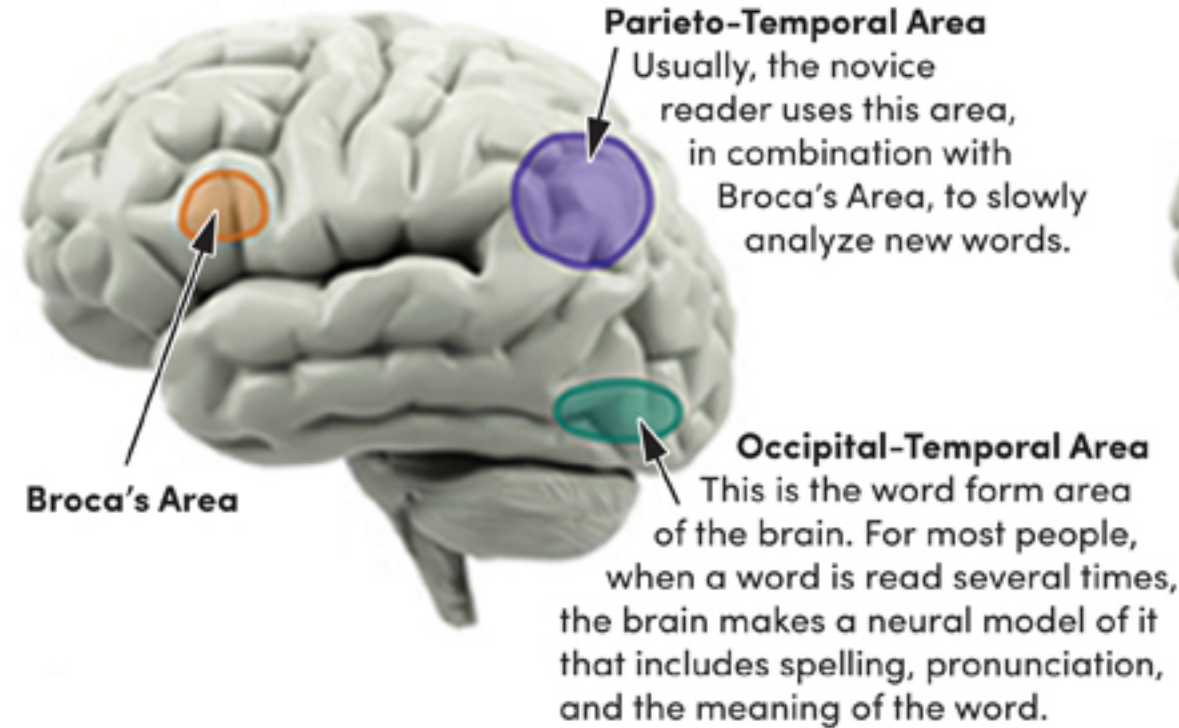
http://www.hms.harvard.edu/hmni/On_The_Brain/Volume05/Number1/ADD.html

Dyslexia

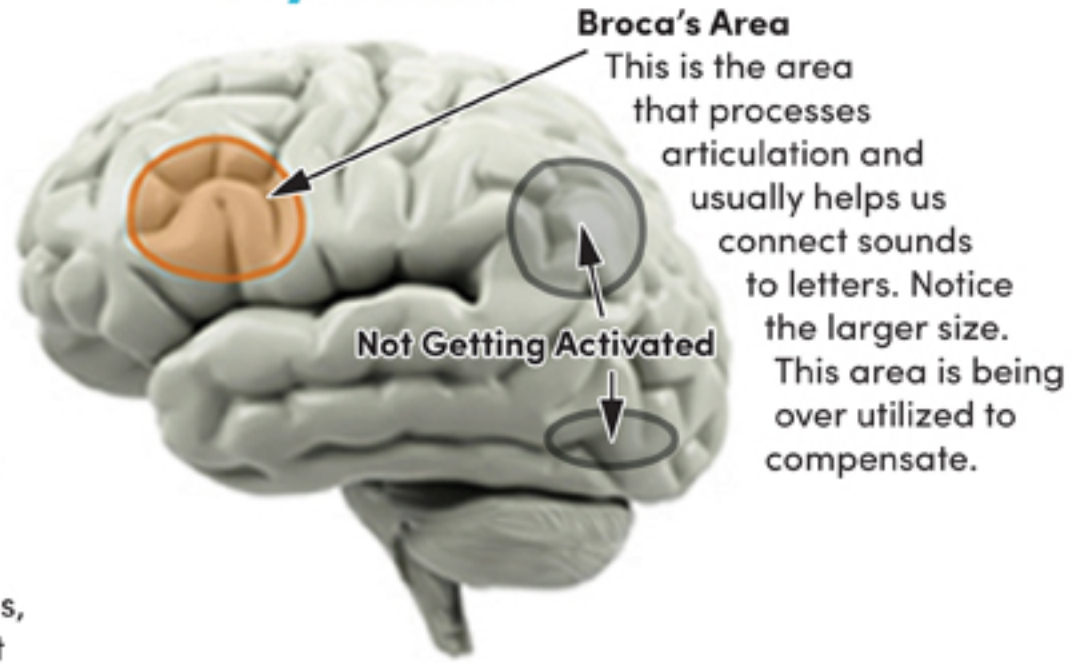
- Dyslexia involves troubles connecting the sounds that make up words with the letters that represent those sounds

NON-DYSLEXIC BRAIN vs. DYSLEXIC BRAIN WHEN READING

Non-Dyslexic



Dyslexic



Research in neuroscience reveals that the brain functions differently in people with dyslexia than those without it. These structural and neural differences make it more difficult for people with dyslexia to read, spell and write. For example, in the left brain hemisphere, three dominant areas of the brain are usually activated for reading, but in those with dyslexia, only one area of the brain is being stimulated.



Secondary Disabilities

- Result of social interactions
- Result of natural instinct to survive
- Maybe negative habits- including learned helplessness

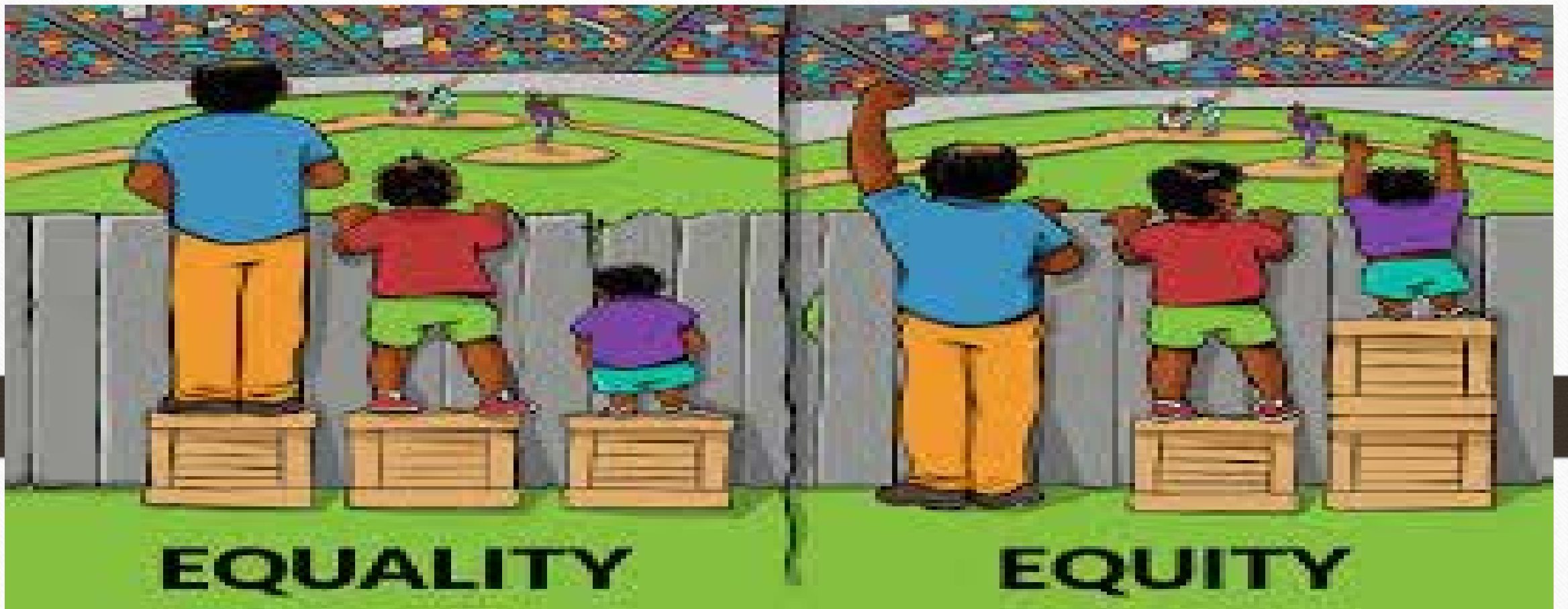
- Learned helplessness
 - Comes from a place of self pity and manifested by students who believe that their abilities are far less than they actually are, and therefore expects others to do for them
 - a reliance/over dependence on others

A call for action - UDL

- Universal Design for Learning
- UDL is an approach to curriculum that minimizes barrier and maximize learning.
- Predict variabilities
- Allow students to self differentiate
- **use UDL, you assume that barriers to learning are in the design of the environment, not in the student.**

UDL

- Traditionally, we respond to different needs from a reactive approach eg creating accommodations based on what is presented
- With UDL we anticipate what is needed during the design of the course.
 - By anticipating obstacles and planning an open access to learning, we maintain that critical balance between teaching and learning/student and teacher



- **Equality** has to do with giving everyone the exact same resources.
- **Equity** involves distributing resources based on the needs of the recipients.



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Are you a part of the village?

- Teachers
- Parents
- School administrators
- Government Ministries.

Learning Disabilities in Belize

Learning Disabilities	
Toledo	22
Stann Creek	7
Cayo	5
Belize	83
Orange Walk	148
Corozal	48

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 - Neuroscience for Educators: What Are They Seeking, and What Are They Finding