



Slow Learners and Advanced Learners in Higher Education System

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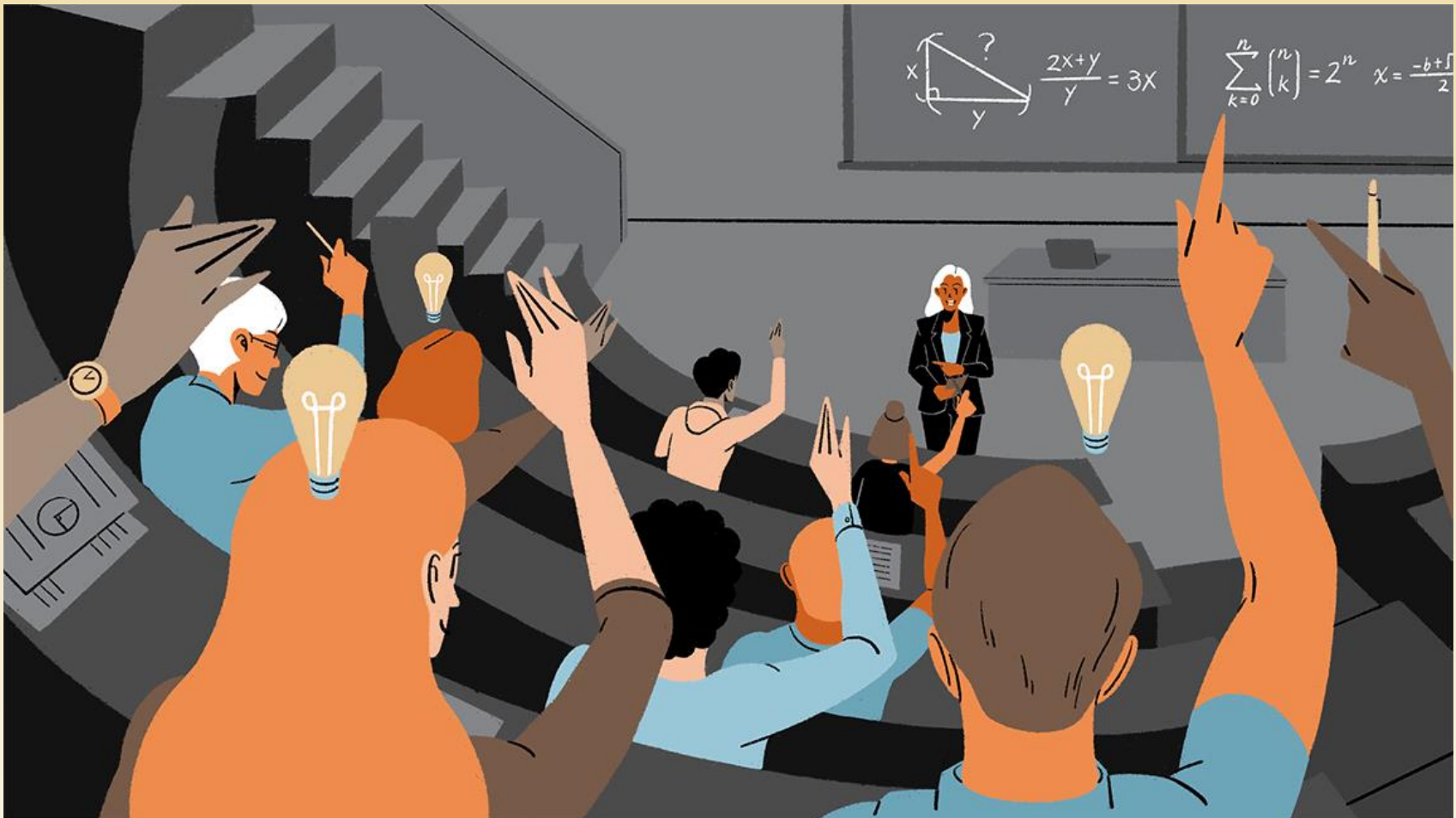
NAAC Criterion 2

Teaching, learning and Evaluation

Metric No. 2.2.1

The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

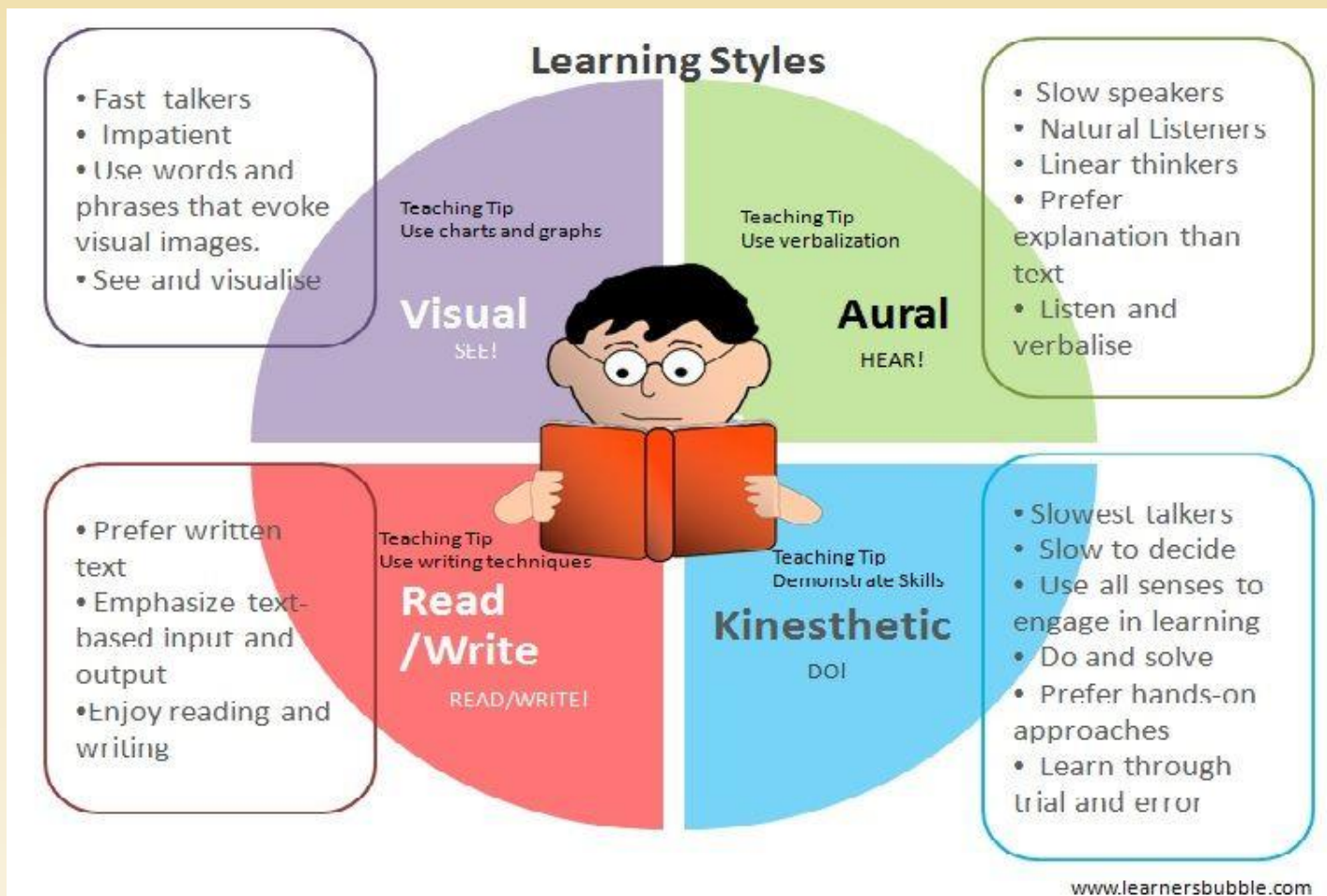
Why to identify learners...



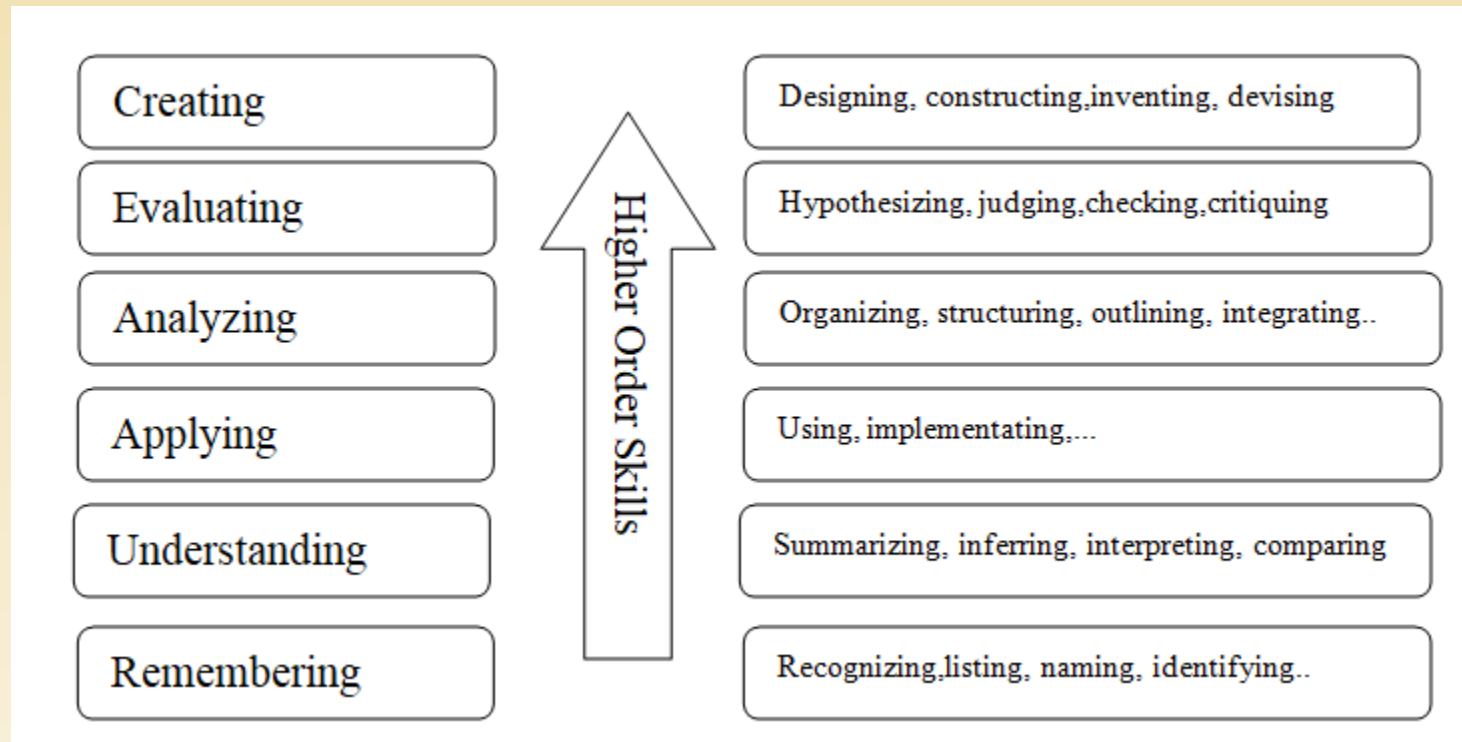
VARK Model



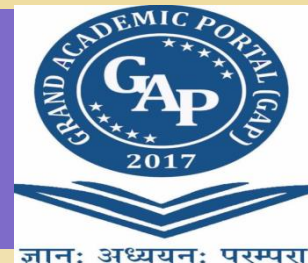
Learning styles and its impacts ...



Introduction



Taxonomy Explained



KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	SYNTHESIS	EVALUTION
Define Repeat Record List Recall Name Relate Underline	Translate Restate Discuss Describe Recognise Explain Express Identify Locate	Interpret Apply Employ Use Demonstrate Dramatise Practice Illustrate Operate Schedule Sketch	Distinguish Analyse Differentiate Appraise Calculate Experiment Test Compare Contrast Criticise Diagram Inspect Debate Question Relate Solve Examine Categorise	Compose Plan Propose Design Formulate Arrange Assemble Collect Construct Create Setup Organise Manage Prepare	Judge Appraise Evaluate Rate Compare Revise Assess Estimate

Originally discovered on the website of Paul Hopkin's education consultancy site mmiweb.org.uk adopted by Allan Carrington at the University of Adelaide and further modified for teachers at Zeeland Public Schools.



Depth of Knowledge

Depth of Knowledge



- Level 1: Recall and Reproduction
- Level 2: Basic skills and concepts
- Level 3: Strategic thinking and reasoning
- Level 4: Extended thinking

Bloom's Taxonomy and Depth of Knowledge (DOK)



Bloom's Taxonomy

a framework for classifying learning based on different levels of cognitive rigor and complexity

Depth of Knowledge (DOK)

a model to analyze how deep students think to answer questions and complete activities

learning
teaching
assessment
thinking
reflecting
creating

bit.ly/Blooms-DOK-Bray

Barbara Bray @bbray27

#rethink_learning

How do we assess our learners...



- **Formative Assessment**
- To *monitor student learning* and to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning.
- Help students identify their strengths and weaknesses and target areas that need work
- Help faculty recognize where students are struggling and address problems immediately



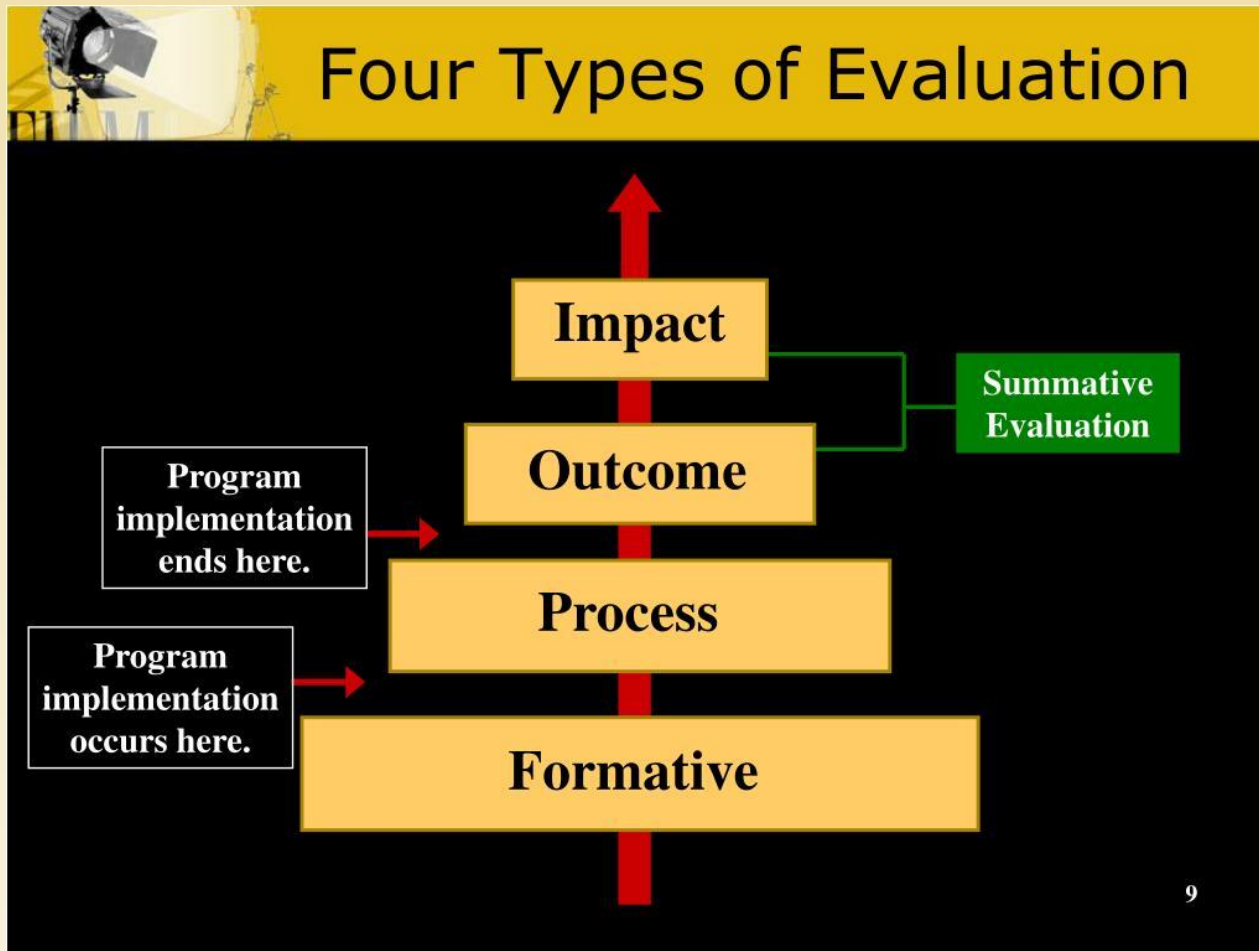
- Examples of formative assessments include asking students to:
- Submit one or two sentences about an article or lecture in a discussion forum
- Complete a small quiz
- Upload/submit a visual depiction of a concept



- **Summative Assessment**
- To *evaluate student learning* at the end of an instructional unit by comparing it against a standard or benchmark.
- Often *high stakes*, which means that they have a high point value and a significant impact on the course grade.



- Examples of summative assessments include:
- Exams
- Projects
- Papers
- Information from summative assessments can be used formatively when students or faculty use it to guide their efforts and activities in subsequent courses.



Evaluation Category Description



- In Bloom's Taxonomy, the evaluation level is where students make judgments about value of ideas, items, materials, and more
- Evaluation is the final level of the Bloom's taxonomy pyramid
- It is at this level, where students are expected bring in all they have learned to make informed and sound evaluations of material
- Key Words for the Evaluation Category:
- **evaluate, appraise, conclude, criticize, critique**

SOLO Taxonomy



- The **structure of observed learning outcomes (SOLO) taxonomy** is a model that describes levels of increasing complexity in students' understanding of subjects.
- It was proposed by John B. Biggs and Kevin F. Collis.

SOLO - Where are you?



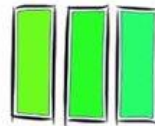
Prestructural

I don't understand
I need help



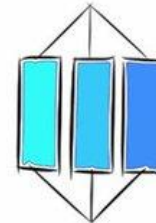
Unistructural

I can ...
identify
label
follow simple
instructions



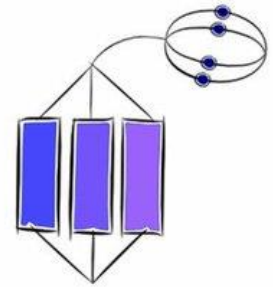
Multistructural

I can ...
describe
calculate
list
combine



Relational

I can ...
explain
solve
compare
analyse
relate
question
Merit



Extended Abstract

I can ...
create
predict
reflect
imagine
evaluate
generalise
Excellence



Tamaki College
EAST AUCKLAND

Achieved

 Pre-Structural	 Uni-Structural	 Multi-Structural	 Relational	 Extended Abstract
I don't really know anything about this.	I know one thing about this.	I know three or more things but I'm not sure when or why to use it.	I can do this and I know when and why I should use this.	I am able to model or teach this to others. I can even use what I know in other contexts.



Solo Taxonomy, *An Approach to Understand Different Levels of Students' Understanding*

Benefits of using SOLO in identifying learners



Why use SOLO?

- SOLO is a true hierarchic taxonomy – increasing in quantity and quality of thought
- SOLO is a powerful tool in differentiating curriculum and providing cognitive challenge for learners
- SOLO allows teachers and learners to ask deeper questions without creating new ones
- SOLO is a powerful metacognitive tool
- All asTTle tests have been developed with a minimum of 25% surface and 25% deep questions – the balance can be anything...

Comparing Taxonomies

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Bloom's

Assesses **QUESTIONS** that the instructor asks.

Works on any type question (multiple-choice, open ended,...)

SOLO

Assesses student's **RESPONSE** to questions.

Works for free-response questions (that is, checking a box in a multiple-choice question is not the skill being assessed)

Traditional Learning



Problem-Based Learning

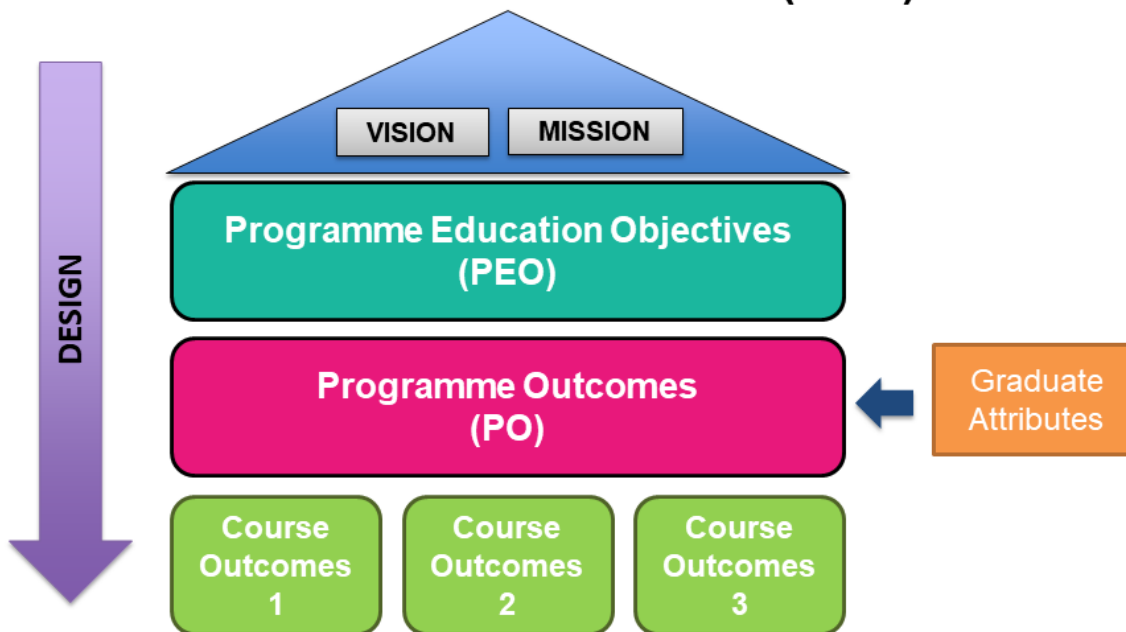


Knowledge Dimension



- POs and PSO fall into one of these categories
- 1. Mental skills-(knowledge)**
 - 2. Manual or physical skills (skills)**
 - 3. Growth in feelings, self-assessment (attitude)**

Key Constituents of Outcome-based Education (OBE)



Meaning of Weak student

*I don't divide the world into the weak
and the strong or the successes and the
failures...*

*I divide the world into the **LEARNers**
and the **non-LEARNers**...*

Benjamin Barber



<http://allthingslearning.wordpress.com/>



...the greatest effects on student **LEARN**ing
occur when the **TEACH**ers become **LEARN**ers
of their own **TEACH**ing and...



...when students become their **own TEACH**ers.

John Hattie
– Visible Learning (2009, p. 22)

allthingslearning



EMPOWERED LEARNERS ARE ENGAGED LEARNERS

Learning Mechanisms



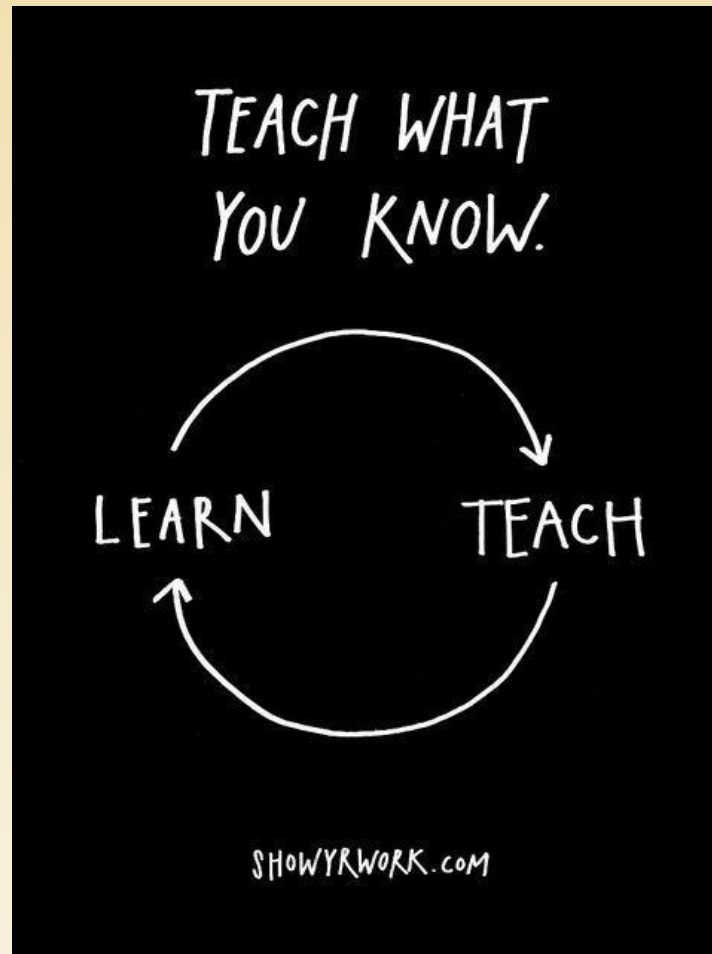
- **Our Brains Have Multiple Mechanisms For Learning**
- people use different mental processes in different situations

1. Learning by association

- Pavlov's dog learned to associate food with the sound of a bell.
"You learn things because they occur together in time,"

2. Learning by explicit reasoning

- "If you go into a restaurant, eat two different foods, and get sick, you don't know which one it was. It could have been the peanut butter or the cheese. If you go out the next day and eat cheese and don't get sick, you learn, aha, it's the peanuts that make you sick.
- This is using an explicit reasoning process.



content
delivery → "content
DISCOVERY"

Here comes the importance of Learning Outcomes...



Why Learning Outcomes?

- Provide **direction** in the planning of a learning activity
- Focus **learner's behavior** on that is to be changed
- Serve as **guidelines** for content, instruction and evaluation
- Identify **specifically** what should be learned
- Convey to learners exactly what is to be accomplished

What are Program Outcomes and Course Outcomes?



Course objectives and Outcomes

- **Objective** — A course objective describes what a faculty member will cover in a course. They are generally less broader than desirable goals and more broader than student learning outcomes.
- **Outcome** — A detailed description of what a student must be able to do at the conclusion of a course.

Outcome Based Education (OBE)



- Deciding outcomes for academic achievements and its attainment for assessment and formulation is based on a learning theory called **Outcome Based Education(OBE)**
- OBE -bases each part of an educational system around goals (outcomes).
- By the end of the educational experience, each student should have achieved the goal.
- No single specified style of teaching or assessment in OBE
- Classes, opportunities, and assessments should all help students achieve the specified outcomes.
- Role of the faculty adapts into instructor, trainer, facilitator, and/or mentor based on the outcomes targeted.

Outcome based education emphasizes on



- Stating what you want your students to be able to do at the end of the program
- Assessing the students whether they are able to do what they are expected to do to do what they are expected to do
- Orienting teaching and other academic processes to facilitate students to do what they are expected to do.

PO and CO



- **Program Outcomes (POs)**
 - Statements about the knowledge, skills and attitudes (attributes) the graduate
 - Deal with the general aspect of graduation for a particular program, and the competencies and expertise a graduate will possess after completion of the program.
-
- **Course Outcomes (COs)**
 - POs are attained through program specific Core Courses, which has their own previously set outcomes to attain.
 - These course-specific outcomes are called Course Outcomes.
 - Each course is designed to meet (about 5–6) Course Outcomes.
 - The Course Outcomes are stated in such a way that they can be actually measured.
 - COs are set by the institution, by consulting with the department heads, faculty, students and other stakeholders.

TYPES OF LEARNERS



VISUAL
learn what they see



KINESTHETIC
learn what they do



AUDITORY
learn what they hear



STRESS
learn what stresses them



EASE
learn what relaxes them



SCRIBBLE
learn what they write out



TRUST
learn from authority

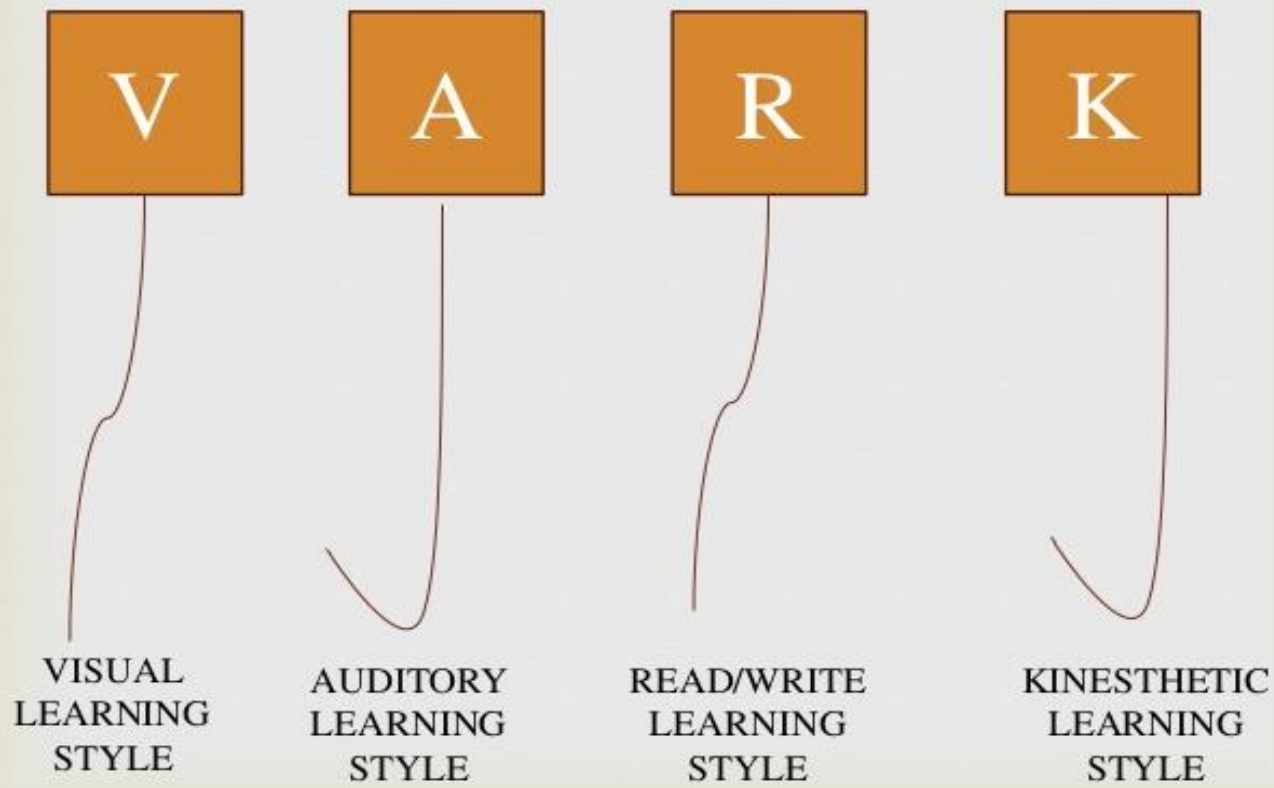


TEACH
learn from teaching



COPY
learn what they can copy

Theory of Neil Fleming's VARK model



Slow learners are those who do not learn successfully due to general socio-cultural problems, frustrating past classroom experiences, inadequate use of strategies or lack of interest.

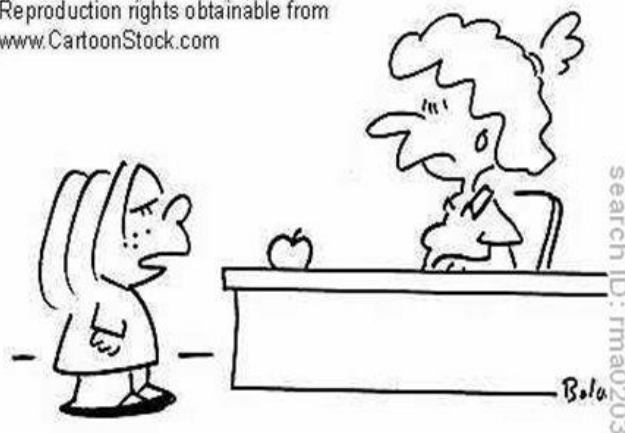
Learning disabled students are formally diagnosed as “learning disabled” by specialist in child psychology.



www.clippaper.com

Do “slow learners” have a Learning Disability?

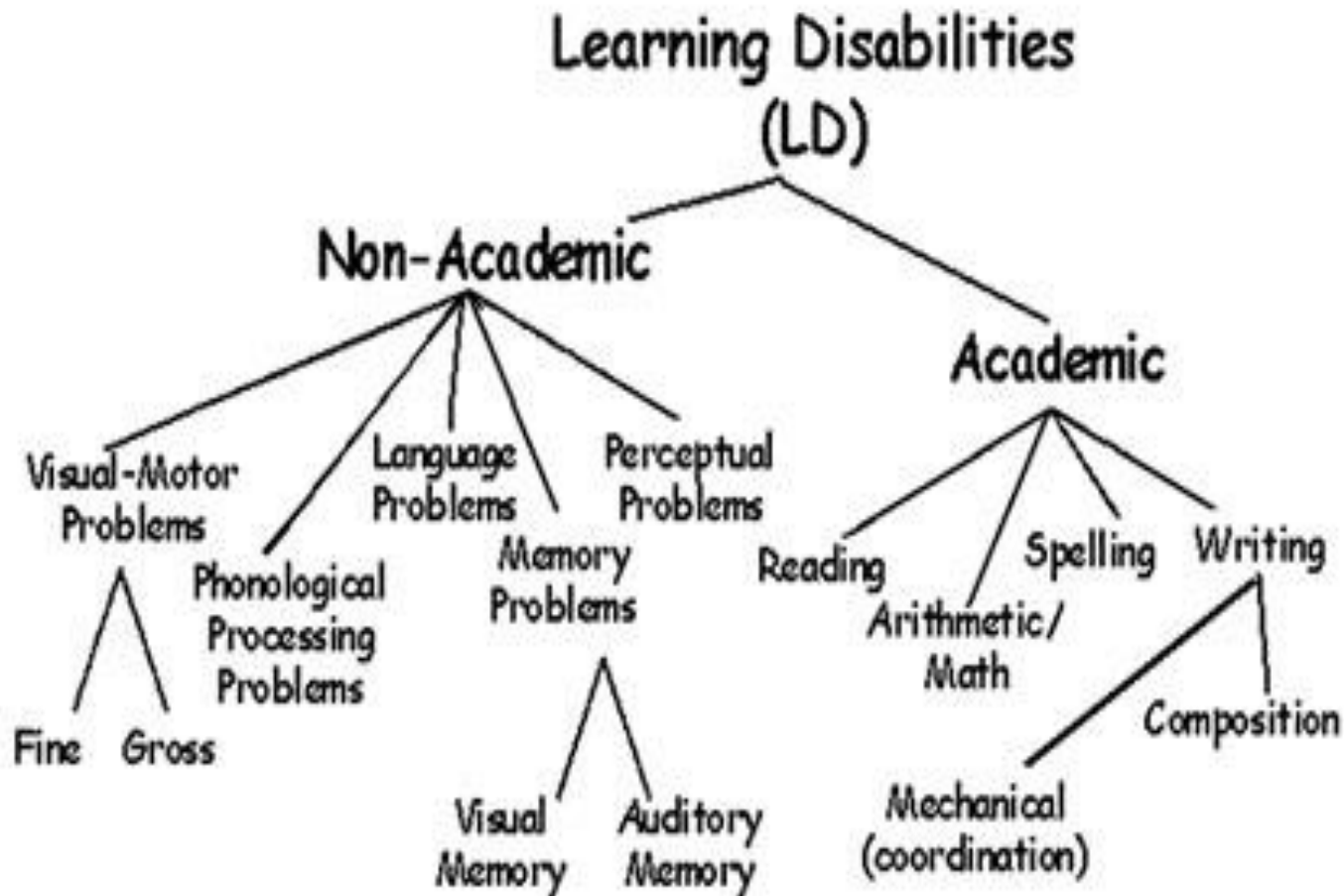
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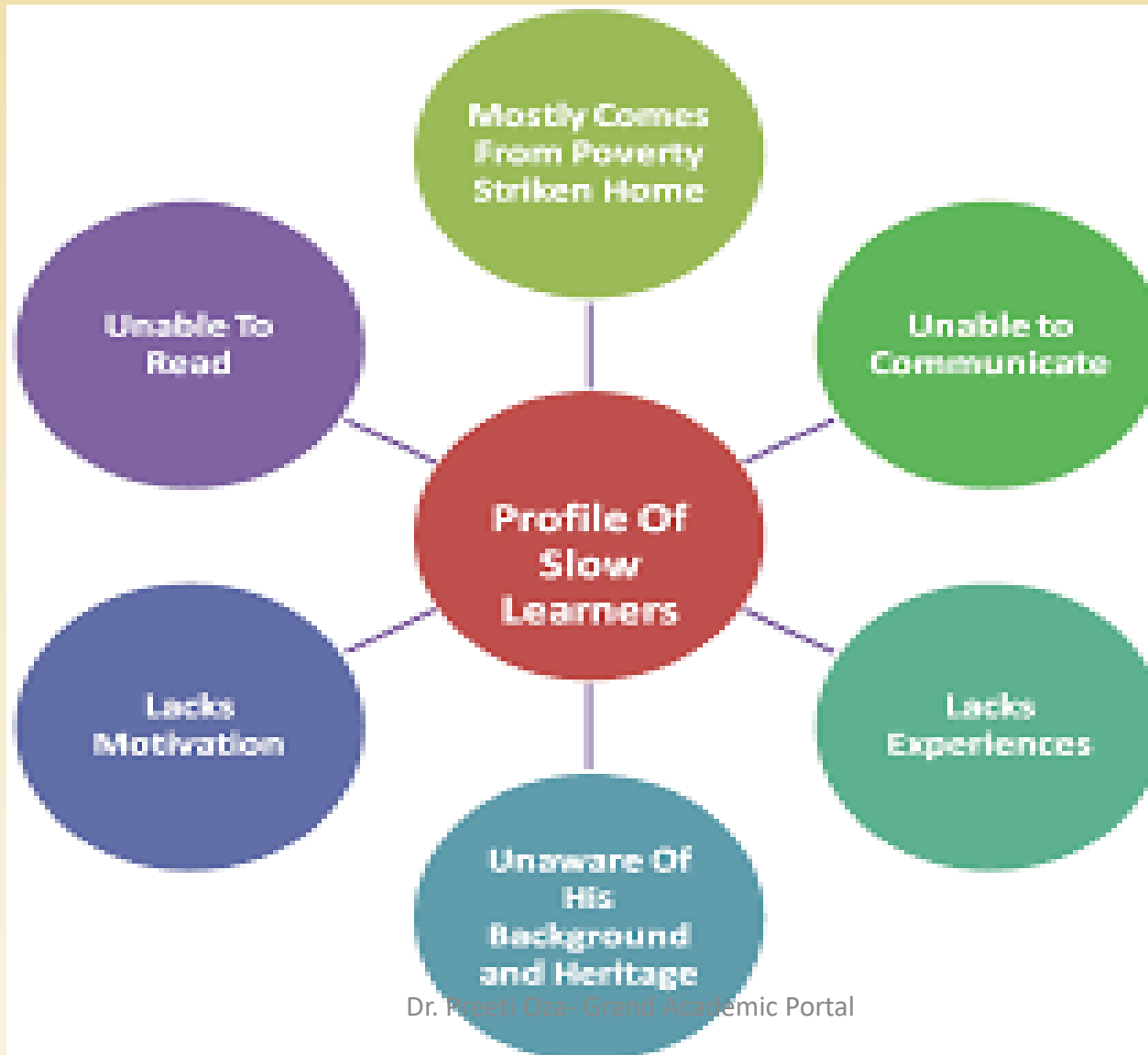
"How do you know I have a learning disability?
— Maybe you have a *teaching* disability!"

- Slow learners typically **DO NOT** have a disability, even though they need extra support
- Cognitive abilities are too high to be considered for an Intellectual Disability
- Slow learners tend to perform at their ability level, which is below average

Barriers in learning...



Profile of slow learners...



There are some students who learn in a short time and some, who take a longer time to learn.

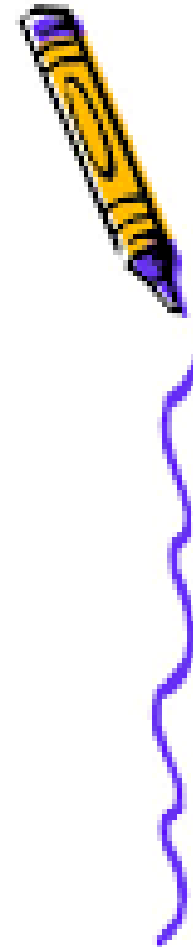
Slow Learners often need to be brought at par with the rest of their peers, due to time constraints on the part of the institution.

Here are some proven tips to assist educators in helping slow learners learn fast.



Usual mistakes we all make...

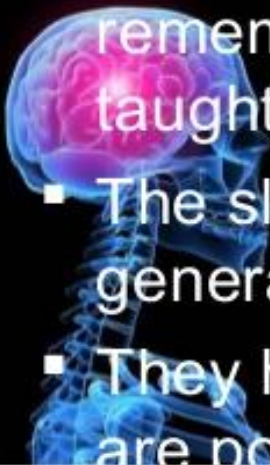
To help the slow learners, they will be paired with fast learners. The latter will mentor the former. The fast learner will teach the procedure in getting the correct answer not the correct answer itself.



SLOW LEARNERS

CHARACTERISTICS OF SLOW LEARNERS:

- The slow learners have a short attention span, that is, they cannot concentrate for long.
- They have short memory and they don't remember easily what they have been taught.
- The slow learners are always bored and generally have no interest in learning.
- They have poor communication skills. They are poor in both oral and written languages.



Trivia:

- An average IQ is 100.
- Less than 70 are considered mentally retarded. Slow learners score 75 to 90 on IQ tests..

- Slow learners are not mentally retarded.
- About 1 out of 5 children are slow learners.



The Slow Learner

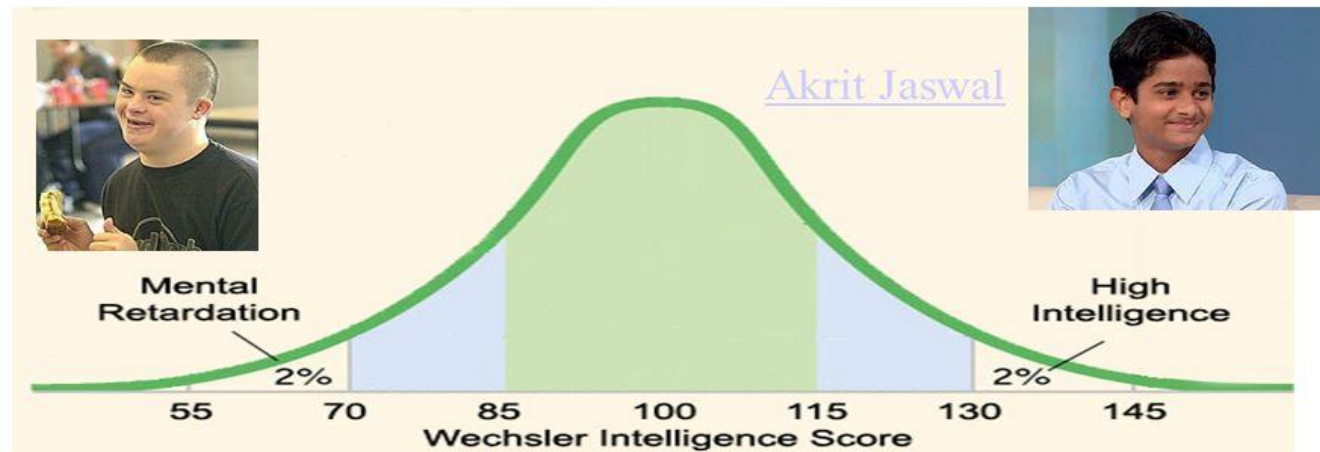
-  Has trouble keeping up
-  May not grasp some or all of material
-  Allow input from other students
 -  Hearing it differently may help
-  On a break, do some one-on-one
-  Don't embarrass or belittle the student
-  The burning question, "does everyone pass?"

Tormented by genius

Extremes of Intelligence

A **valid intelligence** test divides two groups of people into two extremes:

1. **Cognitively Disabled** -- IQ 70 or below
2. Gifted/ High Ability -- IQ 130 or above

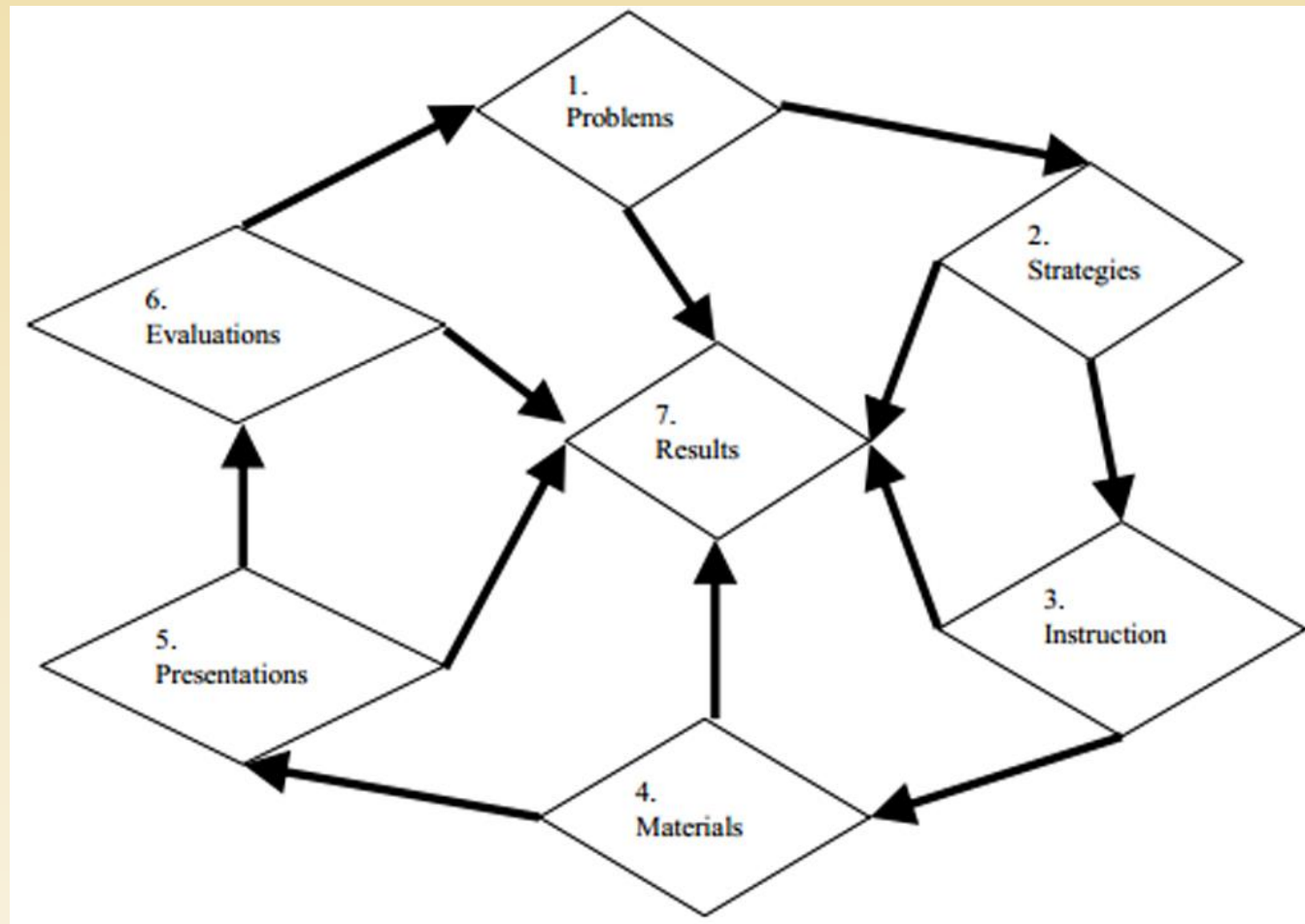


Characteristics of slow learners:

- 1. Functions at ability but significantly below grade level.
- 2. Is prone to immature interpersonal relationships.
- 3. Has difficulty following multi-step directions.
- 4. Lives in the present and does not have long range goals.
- 5. Has few internal strategies (i.e. organizational skills, difficulty transferring, and generalizing information.)



YUGAL Model of remedial teaching for slow learners



YUGAL Model of remedial teaching for slow learners

- Step: 1- Identification of problems
- Step: 2- Designing strategies for remedial instruction
- Step: 3- Planning of remedial instructions through diagnosis
- Step: 4- Selection of instructional materials
- Step: 5- Presentation
- Step: 6- Test and evaluations
- Step: 7- Comparison of past and present results

SUMMARY

- REMEDIAL TEACHING is identifying slow learners and giving them the necessary guidance to help them overcome their problems, after identifying their areas of difficulty. Contrary to what is said, remedial teaching is done perfunctorily without identifying their areas of difficulty and underlying cause for lagging behind. Some students are unsympathetically branded as 'block heads' without an earnest attempt to know the real cause of their slow learning.
- Slow learners
- Who is a slow learner? In the present system of education, students are identified as slow learners purely on the basis of their poor performance in the examination, which, in most cases deviates from what is taught. Consequently even talented students are sometimes misconstrued as dullards. So, a slow learner is one whose performance is very dismal in the examination. He is neither mentally retarded nor is on the lower rungs of intelligence scale.

Types of Learning Disabilities

- **Dyslexia**
A language and reading disability
- **Dyscalculia**
Problems with arithmetic and math concepts
- **Dysgraphia**
A writing disorder resulting in illegibility
- **Dyspraxia (Sensory Integration Disorder)**
Problems with motor coordination

Types of Learning Disabilities

Common Types of Learning Disabilities

- ♦ **Dyslexia:** Difficulty reading
- ♦ **Dyscalculia:** Difficulty with math
- ♦ **Dysgraphia :** Difficulty with writing
- ♦ **Dyspraxia :** Difficulty with fine motor skills
- ♦ **Dysphasia/Aphasia:** Difficulty with language
- ♦ **Auditory Processing Disorder:** Difficulty hearing differences between sounds
- ♦ **Visual Processing Disorder:** Difficulty interpreting visual information
- ♦ **ADD/ADHD:** Attention deficit disorder
- ♦ **Hyperactivity**
- ♦ **Autism Spectrum Disorder**

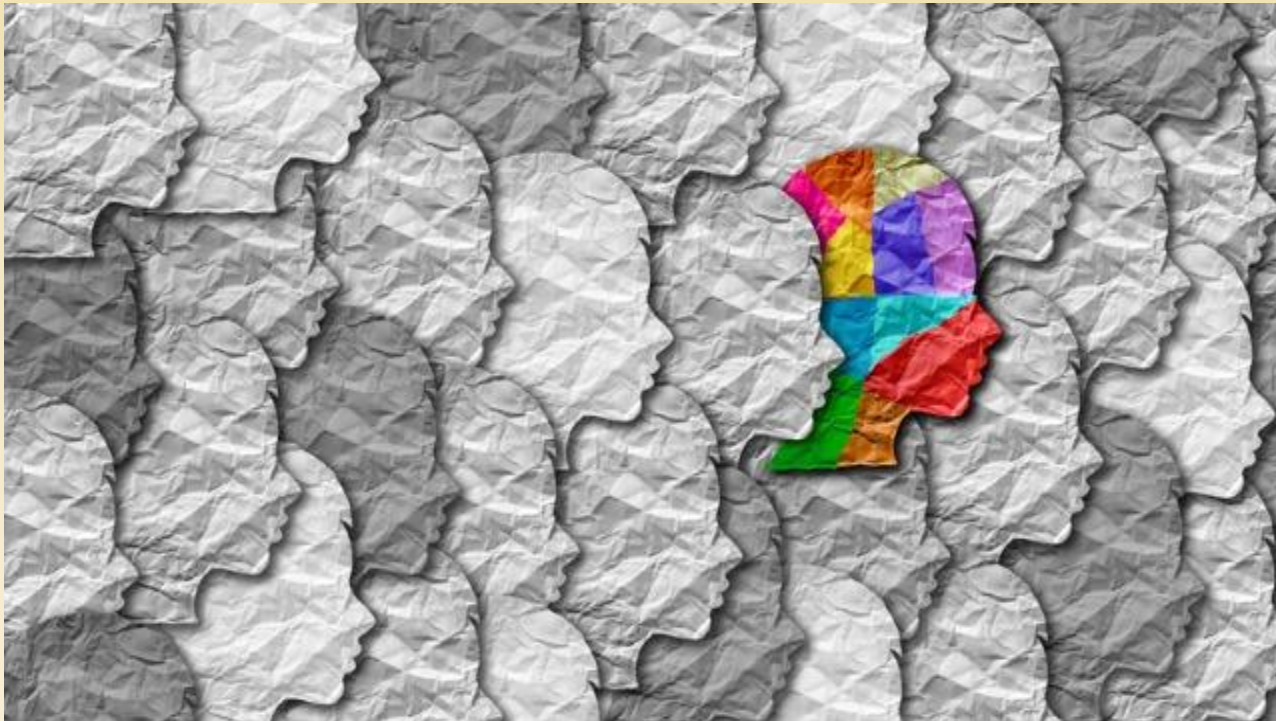
Remedial steps for slow learners



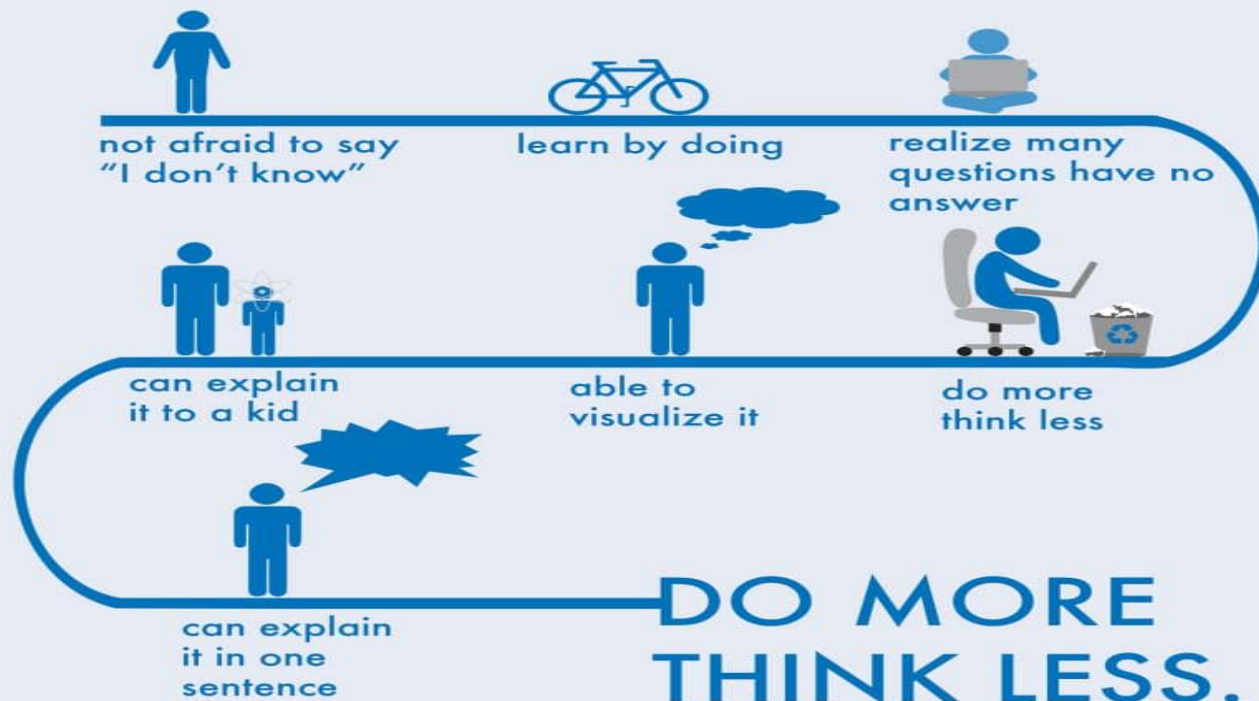
ज्ञानः अध्ययनः परम्परा

Type of Problem	Examples of Interventions
Activation	Investigate the cause. For example, see if the student: • Is engrossed in another activity • Is confused about what to do • Has missed the instructions • Is anxious about failing.
Emotional factors (i.e., "It's too much...")	• Encourage. • Support. • Provide help getting started.
Cognitive factors (i.e., "I don't even know where to begin.")	• Develop a plan. • Break a task down into smaller chunks. • Use graphic organizers.
Focus/attention	• Reduce distractions. • Provide white noise. • Recognize on-task behavior. • Prompt the student when she drifts. • Provide incentives for completion of work.
Working memory	• Repeat directions. • Encourage questions. • Give gentle reminders. • Provide templates of completed work, written copies of directions, word banks, etc.
Handwriting	• Determine if dysgraphia is present. • Give advance copies of teacher notes. • Provide access to word processing and/or speech-to-text software (such as Dragon's Naturally Speaking). • Have another student share copies of notes.

Fast Learners



7 SIGNS YOU ARE A FAST LEARNER



Fast Learners



Intellectual Traits	Personality Traits
• Exceptional reasoning ability • Intellectual curiosity • Rapid learning rate • Facility for abstraction • Complex thought processes • Vivid imagination • Early moral concern • Passion for learning • Powers of concentration • Analytical thinking • Divergent thinking/creativity • Keen sense of justice • Capacity for reflection	• Insightful • Need to understand • Need for mental stimulation • Perfectionism • Need for precision/logic • Excellent sense of humour • Sensitivity/empathy • Intensity • Perseverance • Acute self-awareness • Nonconformity • Questioning to rules/authority • Tendency to introversion



Characteristics of a Gifted/Talented Student

- Avid reader
- Outstanding in academics
- Wide range of interests
- Anxious to try new things
- Alert & gives rapid answers
- Self-motivated
- Dominate peers
- Has self-confidence
- Sensitive to other & situations
- Can solve problems ingeniously
- Creative thoughts, ideas & innovations
- Desire to excel
- Verbally expressive

DIFFERENCE BETWEEN BRIGHT AND FAST LEARNERS

BRIGHT LEARNERS	FAST LEARNERS
Enjoys peers Grasps the meaning Completes assignments Is receptive Copies accurately Enjoys school Absorbs information Technician Good memorizer Enjoys straightforward, sequential presentation Is alert Is pleased with own learning	Prefers adults Draws inferences Initiates projects Is intense Creates a new design Enjoys learning Manipulates information Inventor Good guesser Thrives on complexity Is keenly observant Is highly self-critical

Dos & Don'ts of handling fast learners....



Do ...

- Understand that gifted students, just like all students, come to class to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping fast learners together
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges.
- Because they're often used to getting good grades, gifted students may be risk averse.
- Offer training in how to handle fast learners to all your teachers.

Dos & Don'ts of handling fast learners....



- **Don't ...**
- Confuse high achievers with high-ability students. Their gifts may not translate into academic achievement and their behavior can at times appear noncompliant.
- Assume that all fast learners are the same and that one strategy works for all.
- Assume that by making fast learners tutors, you're providing a learning extension.
- Confuse extension activities with additional work.
- Fast learners need deeper and more complex assignments.
- Refer to alternate work for fast learners as "free time." Call it "choice time" or "unfinished work time," so students understand that they are required to tackle a task during this time period.
- Give too many directions to students about how they should complete a task. Say, "Here's the end result I'm grading. How you get there is your choice."
- Assume that fast learners are growing academically. Rely on formative and summative assessments.

Ensuring flexible, learner-centred teaching

Slow learners

1. Keep them working on suitable materials.
2. Give them a number of different short tasks.
3. Provide more built-in guidelines and examples on their worksheets.
4. Break down the task into the necessary skills, vocabulary and structures and give learners practice in each before moving on to the integrated practice.
5. Give instructions clearly in writing as well as orally, and check after the others have started that these learners know what they do.

Fast learners

1. Keep them purposefully busy.
2. Give them more challenging longer tasks.
3. Let them discover and work out how to do things by themselves.
4. Encourage learners to go into more depth, to write from their experience, to provide alternatives and elaboration.
5. Give individual help as required; discuss how work could be improved; encourage extensive reading and writing such as reading stories and writing diaries.

Thank
you