Sustainable Human Resource Development in logistics services for ASEAN Member States

Sustainable Human Resource Development in logistics services for ASEAN Member States

"Instructors' Workshop on Training Fundamentals"

Arnoma Hotel, Bangkok (Thailand)

20th September, 2014 (Saturday)

by Thomas SIM (Singapore)

Chairman – AFFA WGET

Main Objectives of this Module

- **to cover the gaps to be identified for analysis of Training Structure**
- to assist the AFFA *(trainers & course managers/administrators, etc.)* to develop a holistic training program & materials in accordance to the FMST for the AFFA Region
- **examine TOT fundamentals *(curriculum dev. customization & training sustainability, etc.)***
- to assist AFFA Trainers with the aim of introducing FIATA Training Program in in the AFFA Region...

Delivery of this Program

Training Fundamentals (TOT elements)

- **pedagogical & andragogical aspects,**
  - covering methodology,
  - course planning & preparation,
  - course & curriculum developments,
  - training assessments,
  - standards, training resources,
  - course evaluations and CIR etc...

- **Covered in 7 Modules...**

Module 1 :
Principles of Learning

- **Introduction – TOT Fundamentals**
- **Module Objectives**
- **What is Learning & How do we learn ?**
- **'Andragogy' – Adult Learning…**
- **Benjamin Bloom's Taxonomy**
- **Robert Gagne 9 Events of Instructions**
- **David Kolb's Experiential Learning Cycles**
- **John Keller's ARCS Model of Motivation**

- **Common Barriers to Adult Learning**
- **Factors Affecting Learners & the Learning Process**
- **the 7 Principles of Learning**
- **Dunn & Dunn's 3 Basic Learning Styles (VAK Model)**
- **Honey & Mumford's Learning Styles**
- **How to enhance Learning in Adults**
- **Reflecting on this Module...**

The Changing Training Environments

- the developments in CBT & DLI...have NOT change the fact that the INSTRUCTOR continues to be one of the most important elements in the process of teaching & learning...!

- reflect on own educational experiences...
- make subject comes ALIVE & INSPIRED our learning experiences without modern technology...

The Changing Training Environments

- *"chalk & talk"* using blackboard is still a very effective method of teaching...

- discuss many methods of teaching, each with advantages & limitations in terms of helping students to learn effectively...

- the training environments differs from a traditional 'teaching' environment, where teachers delivers new knowledge in a school or university set-up...!

The Changing Training Environments

- learners are **NOT** the 'regular' students !
- mature adults who may have *'given-up studying'* a long time ago…
- your initial important tasks – to bring them back to learning environment
- continue to **engage** their attentions…!

Fundamentals of Adult Learning (ANDRAGOGY)

What is 'Learning' ?

- is more than the acquisition of knowledge
- is a quest for meaning…
- helps you to make sense of what is happening around you   >>>> MEANING !

- is a social process…
- occurs through interaction with people
- is about you interacting with your external environment   >>>> INTERACTION

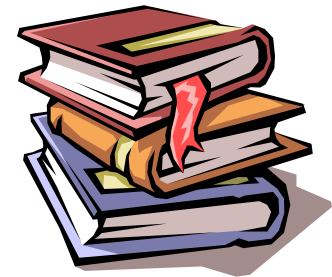# Fundamentals of Adult Learning (ANDRAGOGY)

What is 'Learning' ?

- provides you with a higher level of knowledge and skills that must be applied by **DOING !**
- this application of skill & knowledge results in the creation of a product or service

  >>>> **COMPETENCE**

- can enable you to change for the better

  >>>> **CHANGE IN BEHAVIOUR**

WHAT IS TO BE LEARNT ?

In 1956, Benjamin Bloom identified 3 domains of learning :

(a) **Cognitive (Knowledge)**

(b) **Psychomotor (Skills)**

(c) **Affective (Attitudes & Behaviours)**

WHAT IS TO BE LEARNT ?

Benjamin Bloom has also identified six levels of cognition.

- range from the simple *recall* or *recognition of facts*, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order which is classified as *evaluation*.
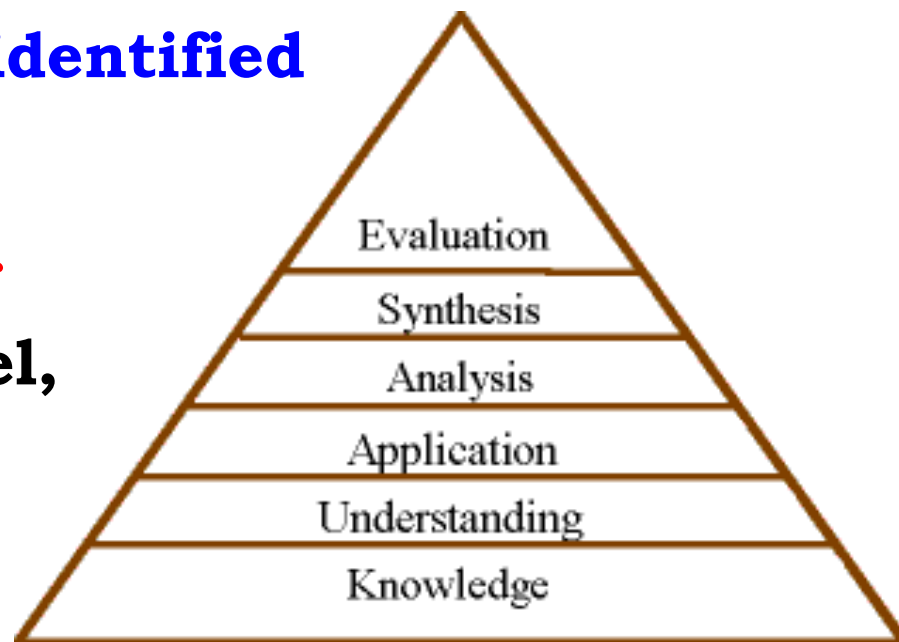
Evaluation
Synthesis
Analysis
Application
Understanding
Knowledge

BLOOM'S TAXONOMY

BLOOM'S TAXONOMY

1. **Knowledge :** arrange, define, duplicate, label, list, memorize, name, order, recognize, relate, recall, repeat, and reproduce/state

2. **Understanding :** classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate

BLOOM'S TAXONOMY

3. Application : apply, choose, demonstrate, use, dramatize, employ, illustrate, solve, interpret, operate, practice, sketch, write, schedule

4. Analysis : analyze, appraise, calculate, categorize, compare, contrast, criticize, examine, differentiate, discriminate, distinguish, experiment, question and test

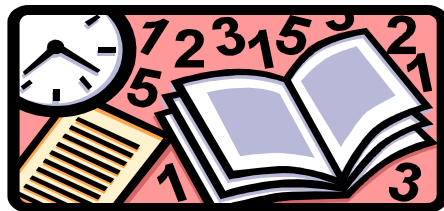**Sustainable Human Resource Development in logistics services for ASEAN Member States**

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BLOOM'S TAXONOMY

5. Synthesis : arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, write

6. Evaluation : appraise, argue, assess, attach, choose, compare, defend, estimate, judge, predict, rate, core, select, support, value, evaluate

Questions ?

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HOW IT IS TO BE LEARNT ?

According to Robert Gagne (1965), there are 9 events of instruction that activate processes needed for effective learning.

This is stated in his book called *"Conditions of Learning"* released in 1965. In his book, Gagne believes all lessons should include this sequence of events:
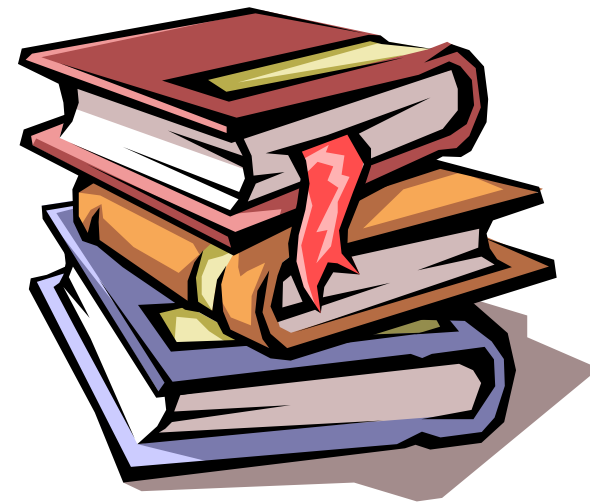
HOW IT IS TO BE LEARNT ?

Events of Instruction
Gain Attention
Inform Learner of Objectives
Stimulate Recall of Prior Learning
Present Stimulus Material
Provide Learner Guidance
Elicit Performance
Provide Feedback
Assess Performance
Enhance Retention and Transfer

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Andragogy	Pedagogy
Internal motivation	**External motivation needed**
Psychologically prepared to learn	**Need conducive environment**
Problem solving focus	**New knowledge is essential**
Prior experience element	**No prior experience**
Purposeful Self-directed learning	**Navigation & guidance needed**

Characteristics of ANDRAGOGY

- **Self-Concept :** as a person matures, his self-concept moves from one of being a dependent personality toward one of being self-directed human being...

- **Experience :** as a person matures, he accumulates a growing reservoir of experience that becomes an interesting resource for learning...

Characteristics of ANDRAGOGY

- **Readiness to learn :** as a person matures, his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles...

- **Orientation to learning :** as a person matures, his time perspective changes from one of postponed application of knowledge

- **Motivation to learn :** as a person matures, the motivation to learn is internal

Three Levels of Learning:
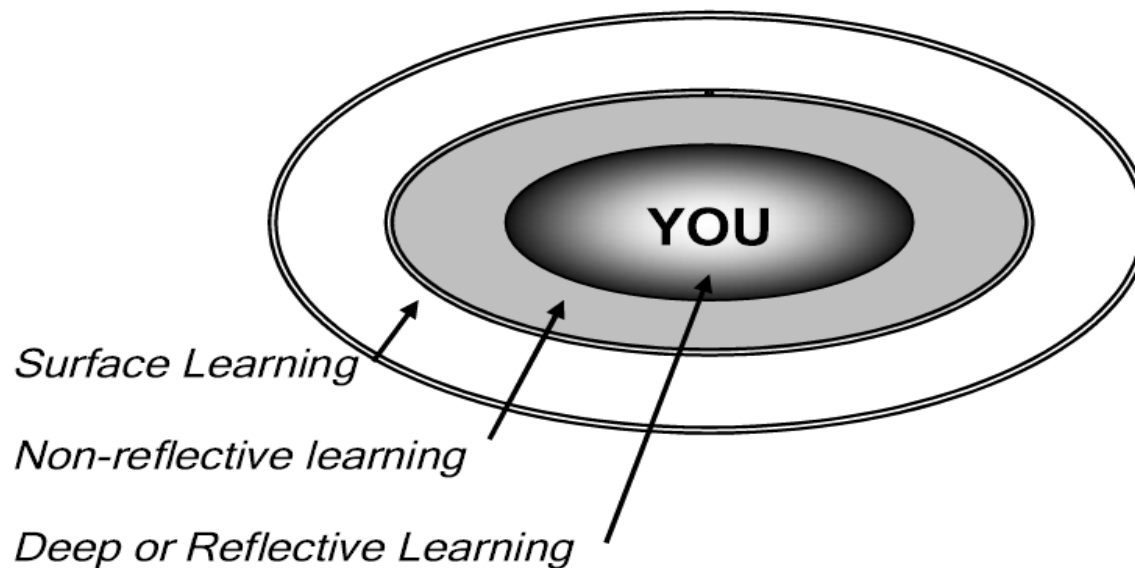
YOU

Surface Learning

Non-reflective learning

Deep or Reflective Learning

Each and every learner perceives and processes information in different ways.

Each develops a method to discover solutions and resolve problems they encounter.

Three Levels of Learning:

Surface Learning

- Memorizing info for tests & assessments;
- Learning information piece-by-piece without integrating them into full picture;
- Fail to distinguish Principles from Examples...

Three Levels of Learning:

Non-Reflective Learning

- **Learning info for immediate application;**
- **Understand how to use, but not how to apply in new context;**
- **See the full picture but unable to create new ideas...**

Three Levels of Learning:

<u>Deep & Reflective Learning</u>

- **Aim to Understand** *(the Problem, the Process & the Principle);*
- **Interact positively with the learning content;**
- **Able to relate new ideas to previous knowledge...**

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David Kolb's Experiential Learning Cycle

- **David Kolb - Professor of Organizational Behavior in the Weatheread School of Management.**

- **together with Roger Fry, he created his famous model out of four elements :**
  - **Concrete Experience (CE),**
  - **Observation and Reflection (RO),**
  - **the formation of Abstract Concepts (AC) and**
  - **testing in new situations ~ Active Experimentation (AE)**

David Kolb's Experiential Learning Cycle
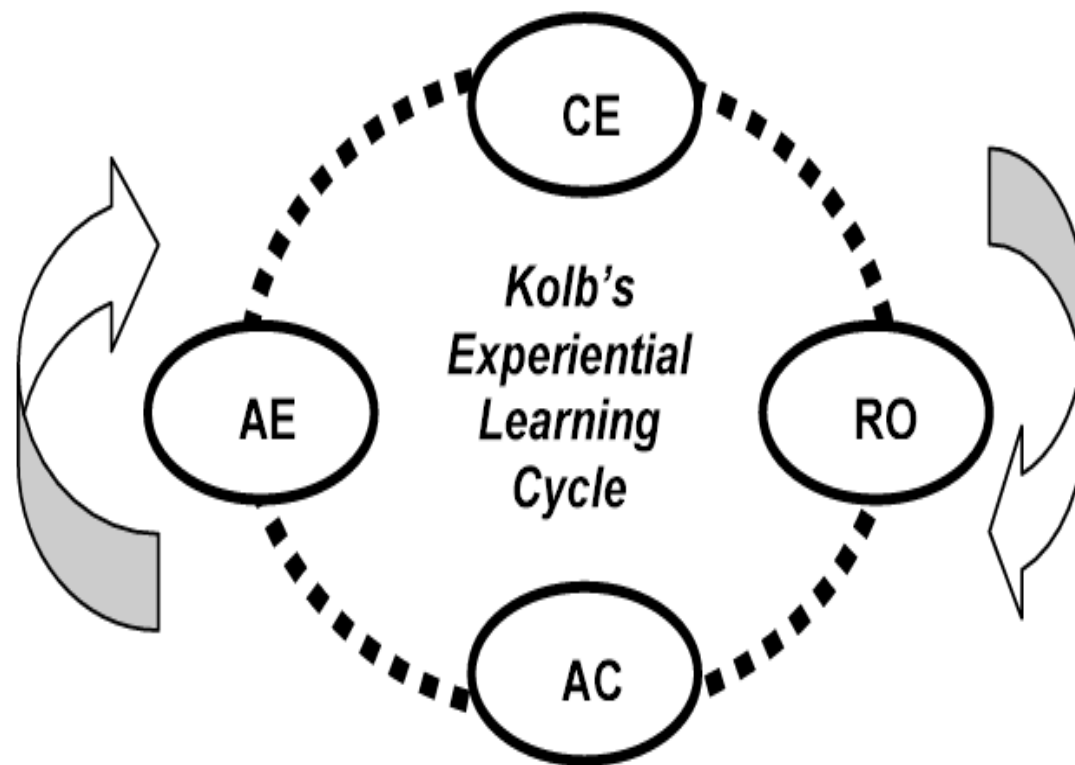
Concrete Experience (CE)

- **the individual's prior experience within their industry.**

- many of the participants will bring with them some years of experiences from their current workplace.

- **when these experiences are connected to the course, they become actively engage in the learning process.**

- at the same time, other participants may come to share and benefit from the experience of others.
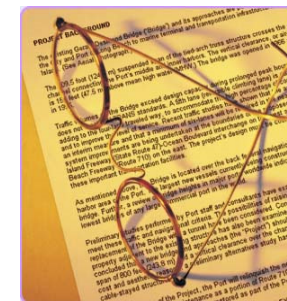
Reflective Observation (RO)

- **the ability to continuously reflect on what they learn, how they learn and why they learn.**
- they have to absorb the content of the course and systematically find relevance to their own frame of mind.
- **this reflection is particularly useful in cultivating critical thinking, problem-solving and self-evaluation on the part of the participants.**

Abstract Conceptualization (AC)

- As part of the learning process, participants have to internalize their learning and think of new ideas of how to apply their learning in the context of their situation.

- every individual needs to seek out new ways to apply the skills they have learnt to their own industry.

- AC helps to develop conceptual thinking, mutual communications as well as their metacognitive skills.

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David Kolb's Experiential Learning Cycle

Metacognition *(in Educational Psychology)*

- refers to higher order thinking which involves active control over the cognitive processes engaged in learning.
- activities such as planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task are metacognitive in nature.

David Kolb's Experiential Learning Cycle

Metacognition *(in Educational Psychology)*

- metacognition plays a critical role in successful learning, it is important to study metacognitive activity and its development to determine how students can be taught to better apply their cognitive resources thru metacognitive control.

David Kolb's Experiential Learning Cycle

Metacognition *(in Educational Psychology)*

- we engage in metacognitive activities everyday.
- metacognition enables us to be successful learners, and has been associated with intelligence

  (e.g., Borkowski, Carr, & Pressley, 1987; Sternberg, 1984, 1986a, 1986b)

- is often simply defined as:
  "thinking about thinking"

  (see Van Zile-Tamsen, 1994, 1996 for a full discussion)

David Kolb's Experiential Learning Cycle

Active Experimentation (AE)

- this final phase allows the participants to put into practice their new found knowledge and skills to different industries.
- the role of the facilitator is to help the participants construct meaning during learning, and help them fine tune solutions that are pragmatic and relevant to the workplace

Characteristics of an Adult Learner

Autonomous and Self-directed

- it is envisaged that the participants are autonomous and self-directed learners.
- they need to be free to direct their own learning.
- as such, they have a fairly clear idea of the learning they need for themselves and the specific areas that affect their performance at the workplace.

Characteristics of an Adult Learner

Accumulated a Reservoir of Experience

- **they come to the program with a great deal of prior experience.**
- some of them may already have many years of experience as leaders in their own organization.
- **others may have explored the subject matter in great depth.**
- this foundation and wealth of knowledge and experiences cannot be ignored but needs to be gainfully leveraged for the benefit of the entire group

Characteristics of an Adult Learner

Seek Pragmatic Solutions

- **Lessons have got to be short and crisp, and more importantly practical; long courses tend to dwell in too much theories and academic exercises**

- what the participants need is a concise entry into the subject matter and then a discussion on how they can put it to use in their workplace

- **while some may be interested in knowledge for its own sake, most of the participants will want to know explicitly how the knowledge can be put to use in their workplace.**

Characteristics of an Adult Learner

Associates better with clear Performance Objectives and Learning Outcome

- **young and aspiring executives enroll for a course when the program objectives are aligned with what they seek to attain in terms of their professional development.**
- **they would therefore appreciate a well-organized program with clearly defined training objectives and learning outcomes.**

Characteristics of an Adult Learner

Learn through Understanding

- **perhaps the most important characteristics of the participants are their ability to reason.**
- at their level of intellect and capacity, mere consumption of knowledge is not good enough.

Characteristics of an Adult Learner

Learn through Understanding

- **they must see the logic of the point and internalize it within themselves. Theories, formula and listing of principles and so on will fall on deaf years if these are not synthesized and brought together into one comprehensive model or concept.**

- **even then, it has to subject itself to the participants' critical analysis and questioning.**

Questions ?

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What Motivates Adults to Learn ?

- **Job security**
- **Job satisfaction**
- **Financial reward**
- **Relevance to professional development**
- **Confidence in the company future**
- **Greater scope and challenge from the new job**
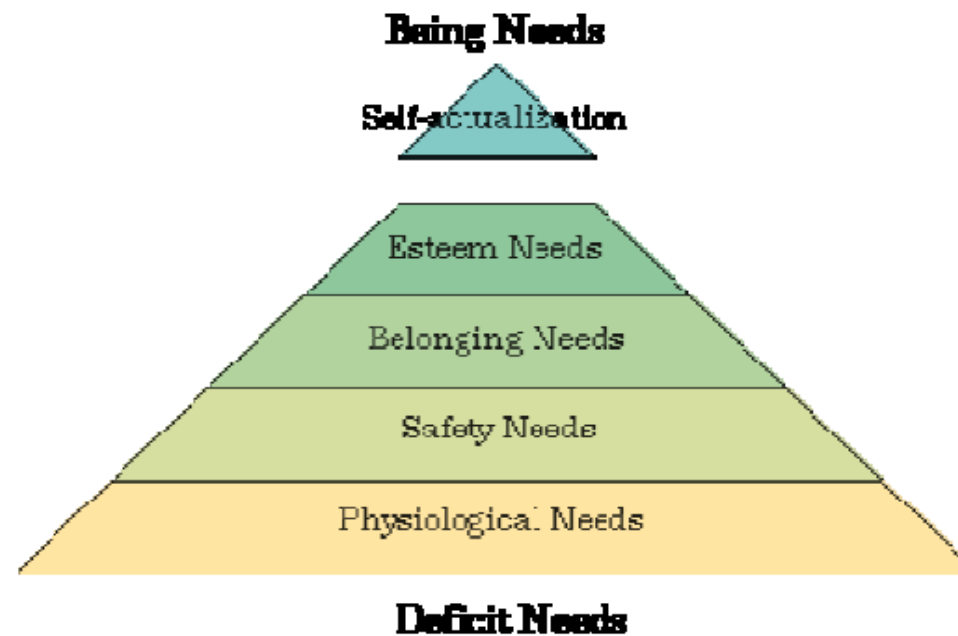- **Gaining attention from superiors**

Abraham Maslow's Hierarchy of Needs Theory

What motivates an adult to learn?

Abraham Maslow put it **very simply and clearly –** *if we want a person to reach the higher further up the ensure that the needs are* *(particularly a child) order development triangle, we must more basic met with...*
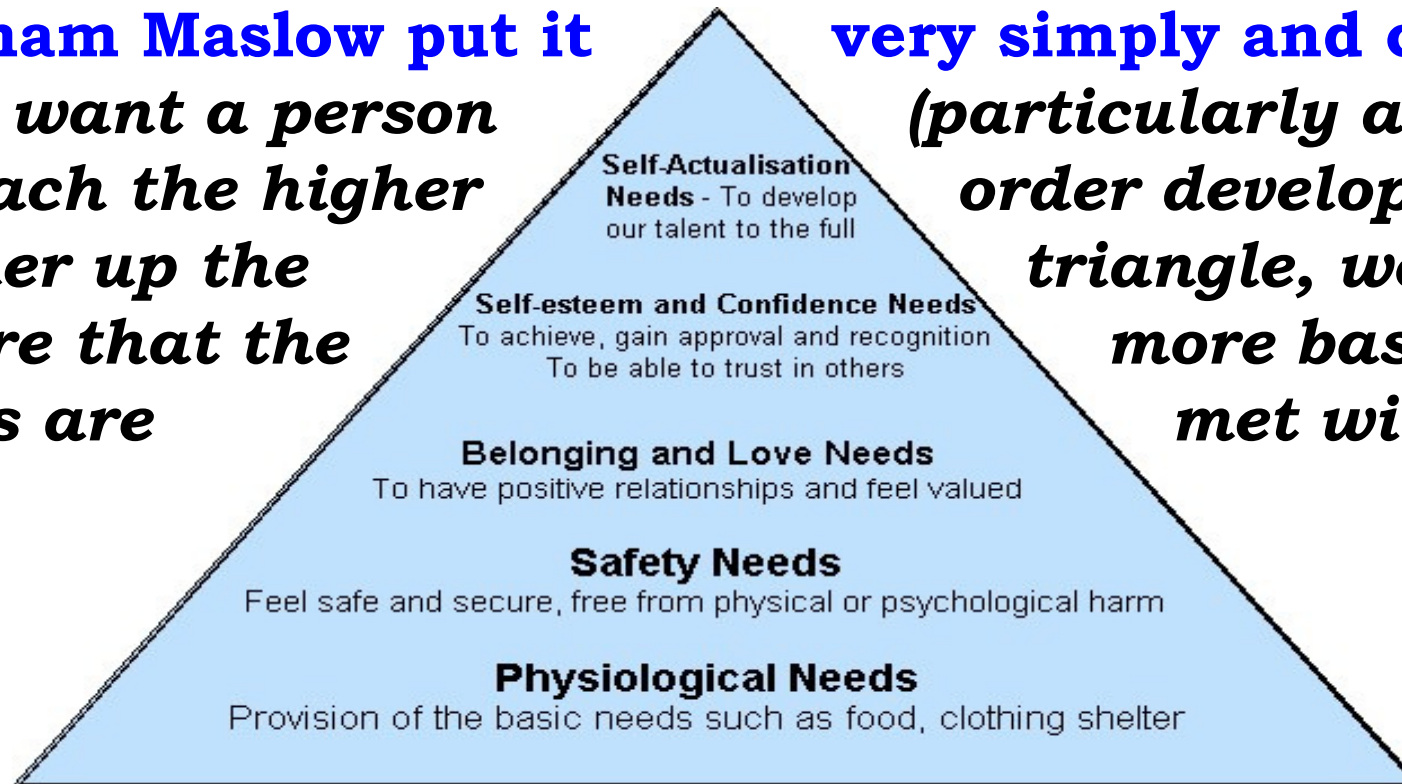
Self-Actualisation Needs - To develop our talent to the full

Self-esteem and Confidence Needs
To achieve, gain approval and recognition
To be able to trust in others

Belonging and Love Needs
To have positive relationships and feel valued

Safety Needs
Feel safe and secure, free from physical or psychological harm

Physiological Needs
Provision of the basic needs such as food, clothing shelter

Human Needs

Abraham Maslow's Hierarchy of Needs Theory

LAYER ONE: Physiological needs
This is our basic human need for food, water, sleep, rest, avoid pain, affections, etc.

LAYER TWO: Safety Needs
This is our human need to find safe circumstances, stability, and protection

LAYER THREE: Belonging needs
When physiological needs and safety needs are, by & large, taken care of, a third layer starts to show up. You begin to feel the need for friends, a sweetheart, children; affectionate relationships in general, even a sense of community

Abraham Maslow's Hierarchy of Needs Theory

LAYER FOUR: Esteem needs
This is our need for the respect of others, the need for status, fame, glory, recognition, attention, reputation, appreciation, dignity, even dominance

LAYER FIVE: Self-actualization needs
This is the desire to fulfill our potentials, to
"be all that you can be"...
They are a matter of becoming the most complete, the fullest, "you" – hence the term, self-actualization

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Now, in keeping with his theory up to this point, if you want to be truly self-actualizing, you need to have your lower needs taken care of, at least to a considerable extent.

This makes sense:

- *if you are hungry, you are scrambling to get food;*
- *if you are unsafe, you have to be continuously on guard;*
- *if you are isolated and unloved, you have to satisfy that need;*
- *if you have a low sense of self-esteem, you have to be defensive or compensate.*

When lower needs are unmet, you can't fully devote yourself to fulfilling your potentials.

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Frederick Herzberg's 2-Factor Theory

What motivates an adult to learn?

MOTIVATORS
- **Achievement**
- **Recognition**
- **Responsibility**

HYGIENE NEEDS
- **Salary**
- **Work Conditions**
- **Status**

MOTIVATORS
- **Work (itself)**
- **Advancement**
- **Personal Growth**

HYGIENE NEEDS
- **Policy**
- **Company Car**
- **Security**

Frederick Herzberg's *motivation and hygiene factors*

– **Herzberg was the first to show that satisfaction and dissatisfaction at work nearly always arose from different factors, and were not simply opposing reactions to the same factors, as had always previously been** *(and still now by the unenlightened)* **believed.**

- **He showed that certain factors truly motivate ('motivators'), whereas others tended to lead to dissatisfaction ('hygiene factors')…**

According to Herzberg, Man has two sets of needs :
- **one as an animal to avoid pain, and**
- **two as a human being to grow psychologically.**

Herzberg's research proved that people would strive to achieve hygiene needs because they are unhappy without them, but once satisfied the effect soon wears off – satisfaction is temporary…!

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John M. Keller's 'ARCS Model of Motivation'

A - **Attention,**
R - **Relevance,**
C - **Confidence,**
S - **Satisfaction**

the 4 conditions that must be met for a learner to be motivated to learn; should be sustained to keep the Learner interested in the topics

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ATTENTION	Make an introduction	Introduce oneself, credentials & experience
	Begin with a clear objective	Course aim must be provide a clear, concise & objective description of what learners will be able to do at the end of the course
RELEVANCE	Communicate the learning outcome	
		Usually derived from performance criteria
CONFIDENCE	Build up your lesson	
		Use a variety of techniques
	Assess progress	Reinforce learning outcomes at appropriate times
SATISFACTION	Rounding up	Examine transfer learning to workplace

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The Common Barriers to Adult Learning

Familiar Phrases !!!

TOO OLD TO LEARN...
NO TIME TO LEARN...
NOTHING NEW TO LEARN...
LOW CONFIDENCE...
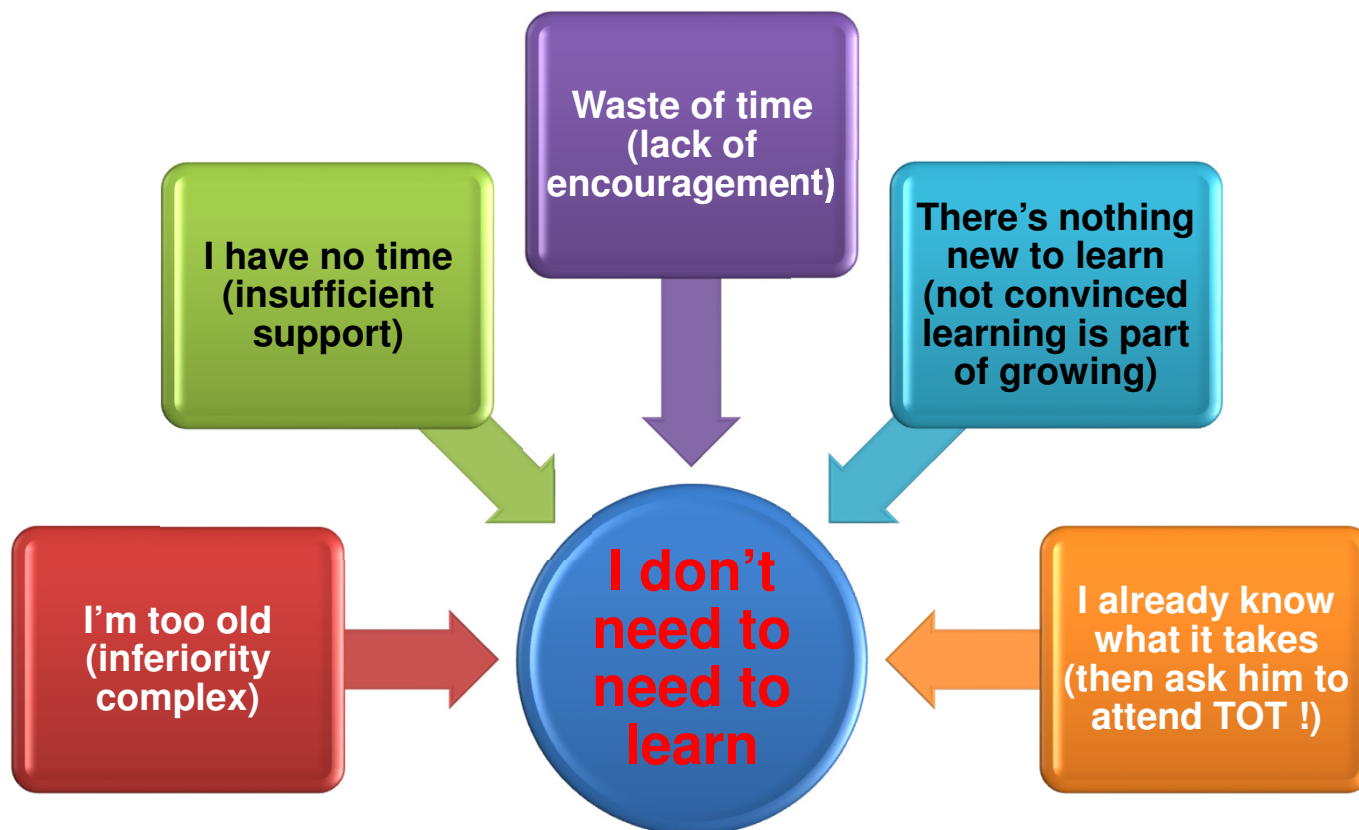*LACK OF SELF-ESTEEM...*
A WOMEN'S PLACE IS IN THE HOME...

WHAT THEY SAY	WHAT THEY REALLY MEAN
Too old to learn	Low or little educational qualification. Inferiority complex.
No time to learn	Company is not supportive. Course is too expensive. Unaware of course subsidy.
Nothing new to learn	Too senior in the job. Thinks that it is a waste of time.
Low confidence/ Lack of self-esteem	Low or little educational qualification. Inferiority complex. Lack of support or encouragement
A women's place is in the home	Mindset problem. Lack of family support. Social-economic issues

Some strategies to overcome learning barriers

There are many strategies to help learners overcome the barriers to learning:

- Confidence building – No one is too old or too stupid to learn.

- Provide easy access to learning - Training subsidy, time off

- Provide flexible work schedule – Plan training as part of the individual's work schedule or shift

- Create a positive learning environment – Reward and encourage livelong learning in the workplace.

- Motivate learning – Learning buddy system, incorporate training into the individual annual work plan & annual appraisal

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The Changing Training Environments

- does enroll for course = interested in learning ?

- or is it company policy that requires they join the programme…?

YOUR ROLE AS AN INSTRUCTOR -

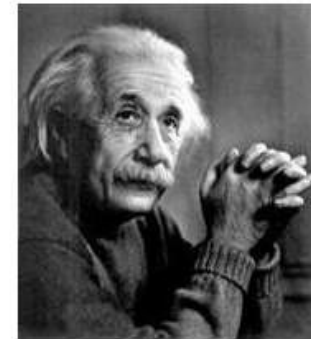*"TO MAKE LEARNING EFFECTIVE & MEANINGFUL, AS WELL AS REWARDING EXPERIENCE !"*

The Principles of Learning

- teaching & training is only effective if it promotes **LEARNING** !

- Instructors – expected to be :
  - highly competent in subject domain
  - sound knowledge on how students learn...

Einstein

Genius mind

The Principles of Learning

- reflects a shift away from traditional role of the teacher as primary provider of subject knowledge to a **FACILITATOR** of learning !

The Principles of Learning

- know the key principles of learning
- the implications of these principles for teaching...
- ensure that your lesson planning & delivery provide more opportunities
- for motivating students & facilitating their learning...

The Principles of Learning

Module Objectives :

- **identify the key components of effective learning**

- **analyze factors that promote & inhibit effective learning**

- **evaluate the impact of principles of learning for practical teaching...**

What is Learning & How Do We Learn ?

- **learning involves :**
  - acquiring new knowledge, skills, attitudes that results in some change in our ability to perform...

- **competence-based training (CBT) :**
  - training that develops the skills, knowledge & attitudes req. to achieve **competency standards**

What is Learning & How Do We Learn ?

- **competence-based training (CBT) :**
  - seeks to promote <u>a change</u> that results in greater competence to perform...

- **competence standards :**
  - an industry-determined specification of performance that sets out the skills, knowledge & attitudes req. to operate effectively in employment. It is an <u>endorsed component</u> of a training package...
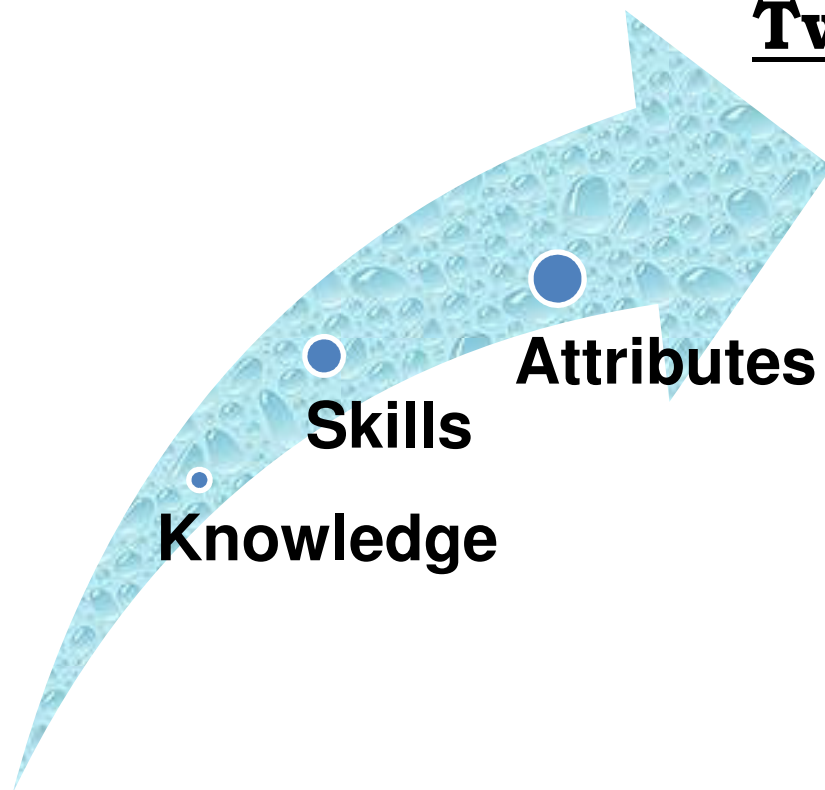
Competence-Based Training (CBT)

Two aspects of competency

Attributes

Skills

Knowledge

Core Competency

- **Pre-requisite KSA**

Functional Competency

- **Essential KSA that significantly enhance performance**

What is Learning & How Do We Learn ?

- **competence standards :**
  - made up of **Units of Competency** which are themselves made up of **Elements of Competency**, together with **Performance Criteria**, a range of variables & an **Evidence Guide**...

- **what then is Competency ?**
  - the **knowledge, skills & attributes** that are req. to perform the activities of a given role or effectively fulfill a particular job function...

What is Learning & How Do We Learn ?

- **Unit of Competency :**
  - the knowledge & skill, & the application of that knowledge & skill, to the **standard of performance expected** in the workplace...

- **Elements of Competency :**
  - one of the basic 'building blocks' of a unit of competency that **describe the specific key activities or elements** of the work covered by the unit...
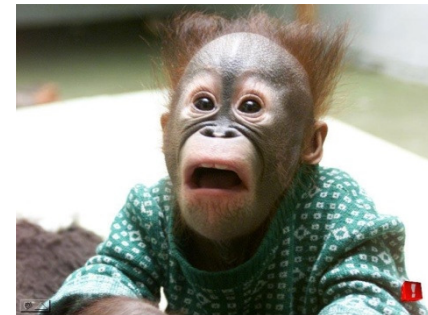
What is Learning & How Do We Learn ?

- **Dimensions of Competency :**
    - the requirement to perform individual tasks,
    - manage a number of different tasks,
    - respond to problems, breakdowns & changes in work routine,
    - deal with the responsibilities & expectations of the workplace &
    - transfer the skills & knowledge to new situations...
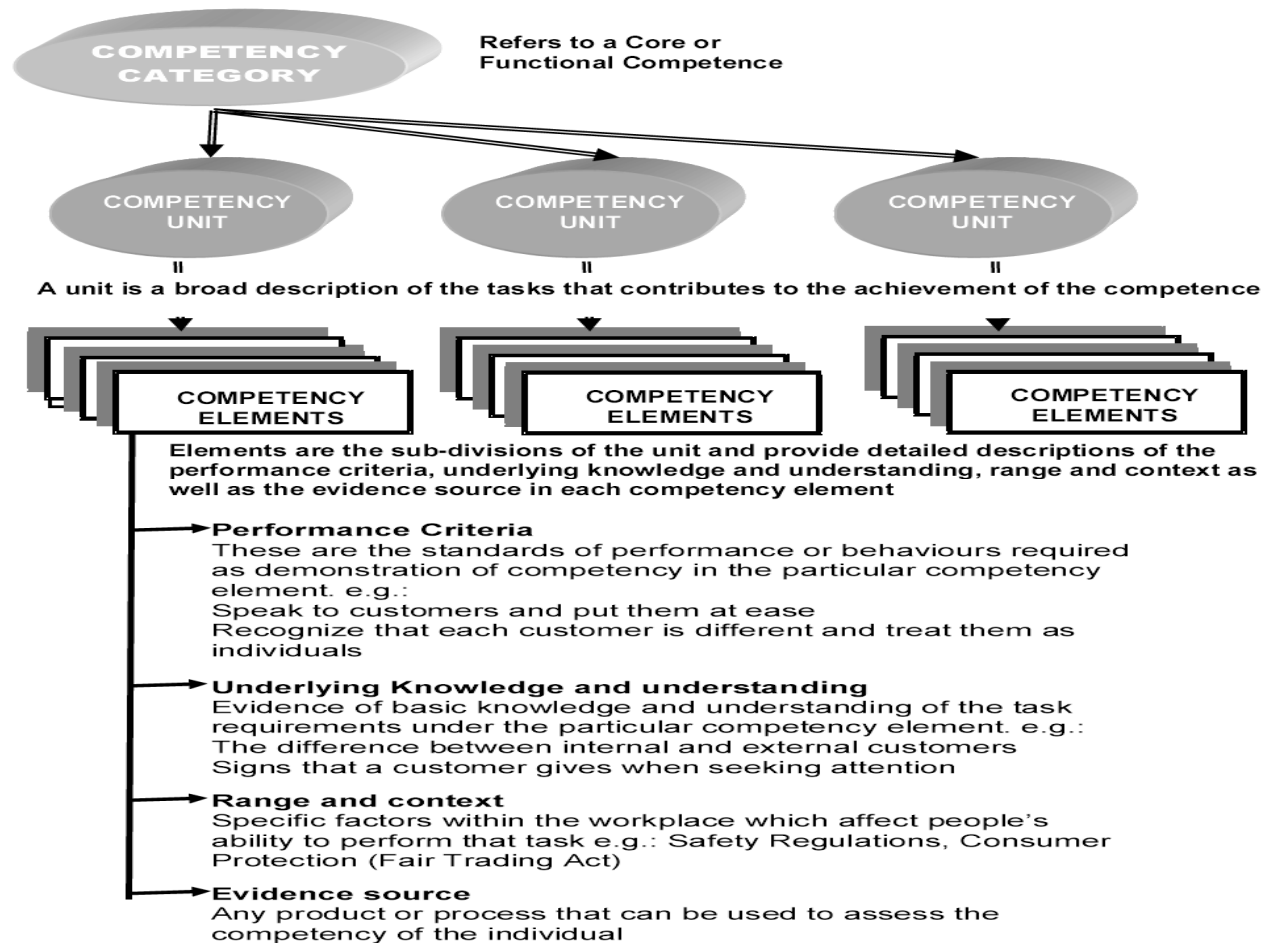
What is Learning & How Do We Learn ?

- **Performance Criteria :**
  - the part of a competency standard specifying the req. level of performance in terms of a set of outcomes that need to be achieve in order to be deemed competent

- **Evidence Sources :**
  - suggested tasks, observations, documents or materials that can be used as evidence for assessing the particular competency element

Refers to a Core or Functional Competence

COMPETENCY CATEGORY

COMPETENCY UNIT | **COMPETENCY UNIT** | **COMPETENCY UNIT**

A unit is a broad description of the tasks that contributes to the achievement of the competence

COMPETENCY ELEMENTS

Elements are the sub-divisions of the unit and provide detailed descriptions of the performance criteria, underlying knowledge and understanding, range and context as well as the evidence source in each competency element

Performance Criteria
These are the standards of performance or behaviours required as demonstration of competency in the particular competency element. e.g.:
Speak to customers and put them at ease
Recognize that each customer is different and treat them as individuals

Underlying Knowledge and understanding
Evidence of basic knowledge and understanding of the task requirements under the particular competency element. e.g.:
The difference between internal and external customers
Signs that a customer gives when seeking attention

Range and context
Specific factors within the workplace which affect people's ability to perform that task e.g.: Safety Regulations, Consumer Protection (Fair Trading Act)

Evidence source
Any product or process that can be used to assess the competency of the individual

THREE SETS OF SKILLS	OPERATIONAL	SUPERVISORY	MANAGERIAL
OCCUPATIONAL SKILLS Job specific skills required to performed one's work	Prepare tools and equipment for hot-stamping	Co-ordinate visual display	Manage oil spill in closed water
INDUSTRY SKLLS Broad industry knowledge and skills	Trouble shooting	Principles of merchandising	Navigational skills
EMPLOYABILITY SKILLS Generic and portable skills applicable across all industries	Problem solving and decision making Initiative and Enterprise Workplace Literacy Series Workplace Numeracy		

Questions ?

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What is Learning & How Do We Learn ?

How have I learnt in different learning situations ?

- "I attended a course"...?
- "I did some reading"...?
- "I asked a colleague"...?
- "I thought about it"...?
- "I tested the information thru' *'trial & error'*"...?
- "I planned it"..."I kept practicing..."

Acquiring Relevant Knowledge (K)

- **vary, depending on what is to be learned** *e.g. language-learning requires much knowledge acquisition*

- **even in skills-based activities like playing football - still important knowledge to be acquired for effective performance,** *e.g. the Rules of the Game*

- **Key Process of knowledge acquisition is:**

MEMORY !

Thinking for Understanding (C)

- **learners need to *makes sense* of what they have learned**
- **know when, where & how to *use* this knowledge !**

Thinking for Understanding (C)

- **Understanding involves more than just _"Memory"..._**

- **requires us to think about what we are learning & make sense of it in REAL Life Applications !**

without understanding, learning through memorization will have of little use, likely to be soon forgotten !

Doing…! (A)

- **learning is often for the practical purpose of developing competency in any activity (e.g. work-related)**

- **learning by *doing activities***

- **improvements in performance requires *practice* over time…**

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DOING   DOING

KNOWLEDGE   COMPETENCE   THINKING
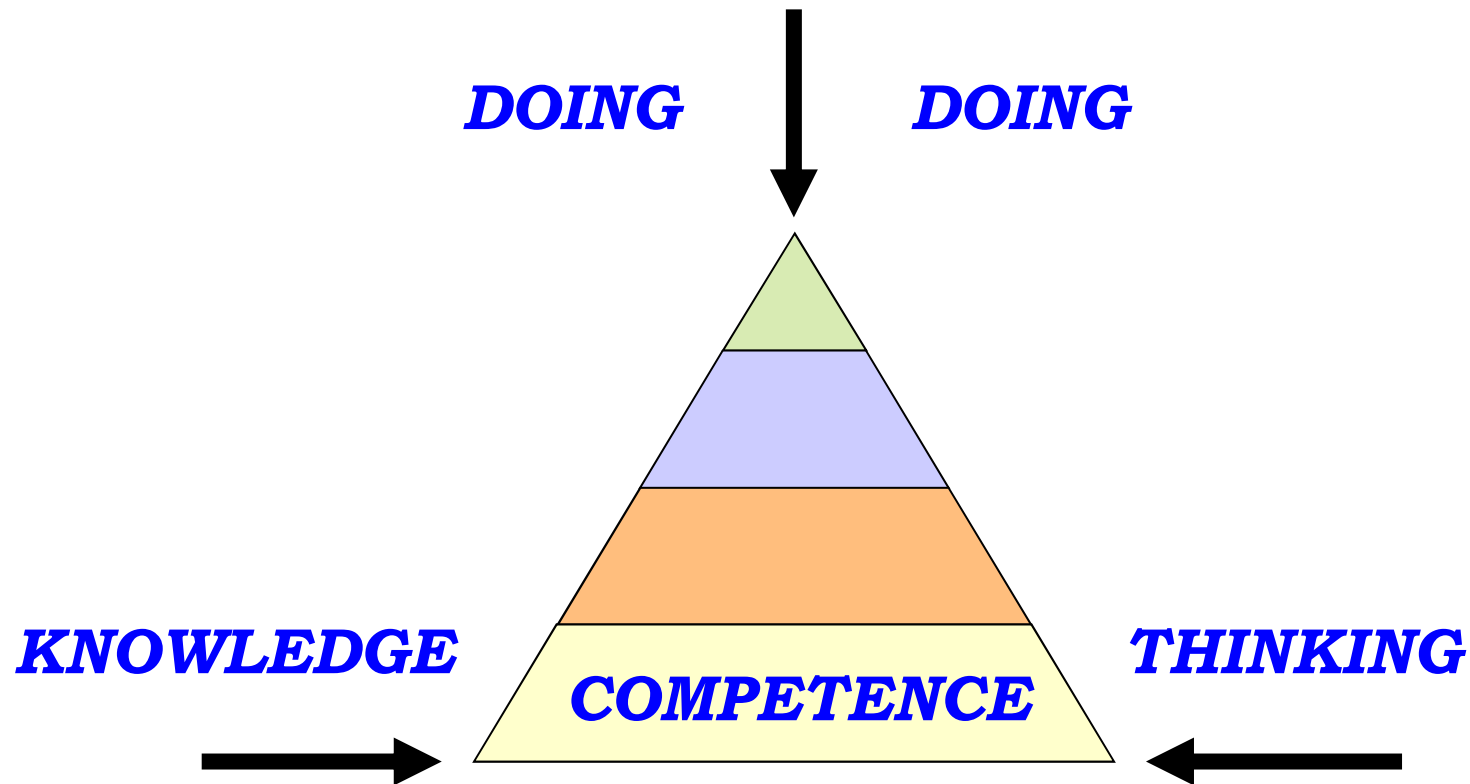
the 3 components of learning occurs in dynamic & they mutually support the overall learning process !

- **Competent performance develops
from the acquisition of :**
  - **appropriate knowledge**
  - **good thinking**
  - **doing, over time !**
- **different types & levels of competence
will require more or less the 3 components...**

**Effective learners are competent at
acquiring knowledge, develop
understanding through good thinking
& applying these in doing !**

Factors that influence learning :

- **your motivation**
- the relationships you have with teachers & peers...
- **your access to resources & time constraints**
- your mood & situational factors
- **your prior learning in a given area**
- how you were taught
- **how relevant you perceive the learning to be**

Learning is a Social & Emotional process !

Questions ?

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P1.   Utilize & Stimulate the Senses

- mental activity is simulated through our 5 senses **with the following % of how much each sense contributes to our learning :**

– **Sight**	**75%**
– **Hearing**	**13%**
– **Touch**	**06%**
– **Smell**	**03%**
– **Taste**	**03%**

**The greater the *combination of our senses*
that are simulated in learning, the more
successful the learning is likely to be…**

It is estimated that we learn :

10% of what we **read**
20% of what we **hear**
30% of what we **see**
40% of what we **see & hear**
50% of what we **discuss**
70% of what we **experience**
90% of what we **teach !**
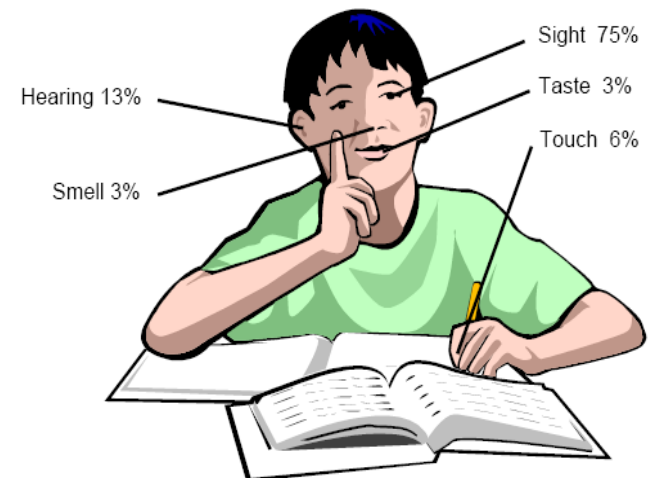
Sight 75%
Taste 3%
Touch 6%
Hearing 13%
Smell 3%

ACTIVE approach to Learning !

Engage Students in :

- **Thinking**

- **Question**

- **Doing REAL Work Activities !**

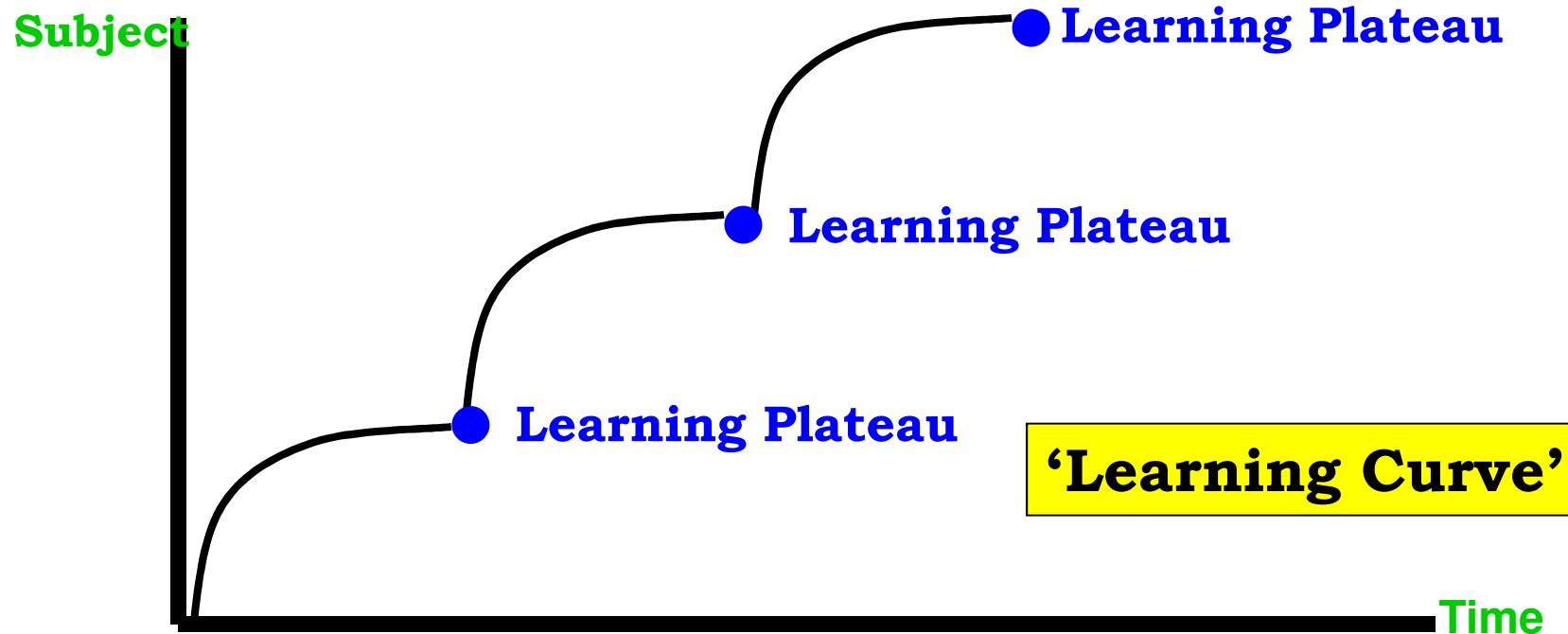**Central to promoting Effective Learning !**

P2. Recognize the Learning Curve

Learning   =   Continuous Process
Learning   X   does not progress at same rate

Subject

● **Learning Plateau**

● **Learning Plateau**

● **Learning Plateau**

'Learning Curve'

Time

P2.   Recognize the Learning Curve

- **important to help students to become aware of the <u>spurts & plateaus</u> in their learning**

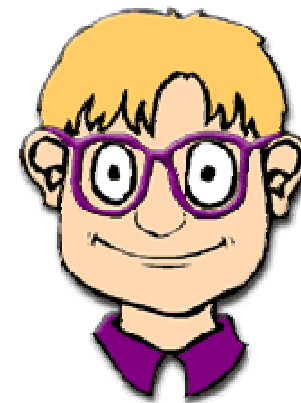- **it will help them to maintain their confidence & motivation when experiencing plateaus in learning…!**

P3.   Don't Abuse the Attention Span !

- **Attention – plays a crucial role in learning**

- **without <u>good attention</u> – learning is likely to be partial & ineffective !**

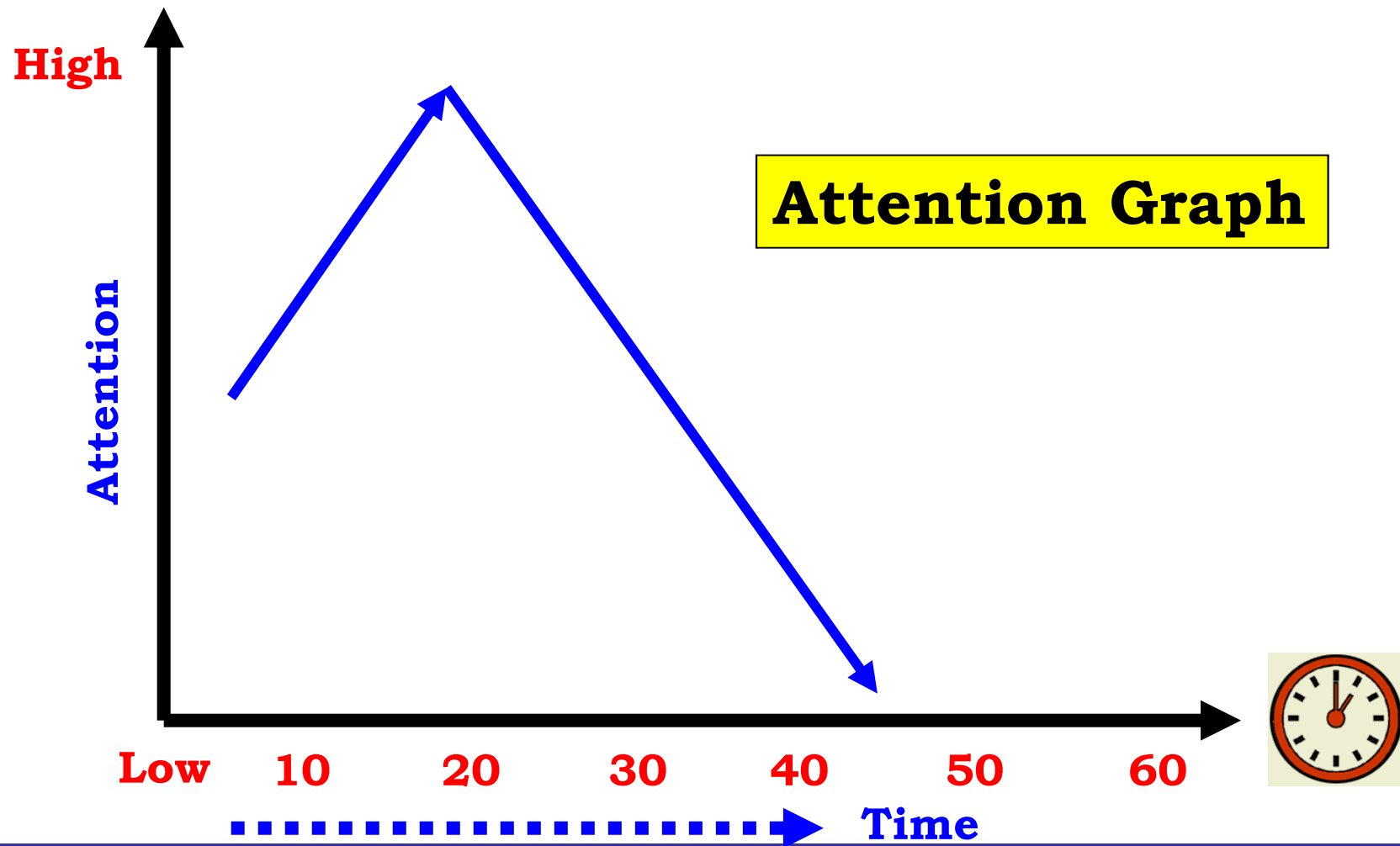- **our ability to maintain attention is Greater if we are motivated…**

High

Attention

Attention Graph

Low   **10**   **20**   **30**   **40**   **50**   **60**

Time

P3.   Don't Abuse the Attention Span !

Findings :

- **Most people – memorize few numbers for up to 30secs**

- **after 30secs, the numbers are omitted from memory**

How did this information get there ?

- **a stimulus – immediate interests to the receiver**

- **information will travel through the sensory storage area, making its way to the STM**

- **STM – working memory…**

P3.   Don't Abuse the Attention Span !

George A Miller

- **cognitive psychologist introduced :**

> **How much information can the STM retain ?**

- **human can remember an average of <u>7 chunks of info</u>**

- **'chunk' = a meaningful unit of info, e.g. a word/name**

- **capacity of the STM memory can be increased by 'chunking' = organizing similar info together to maximize the STM…**

- **enhancing the chances of a memory being passed on to long term storage…**

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P3.   Don't Abuse the Attention Span !

- **Attention** – **implications for teaching very important !**

- **shows long period of talk by the instructor, without opportunities for student participation – likely to be ineffective !**

- **your own experience of being a student will fully bear this out…!**

P4. Encourage the Effective Use of Memory

- **Acquisition of knowledge** – a key component of effective learning…

- **need both to** memorize **&** understand knowledge…

P4.   Encourage the Effective Use of Memory

a.   How Memory Works ?

- **STM – Short Term Memory System**
  - can only cope with approx. 7-bits of information at one go…

- **LTM – Long Term Memory System**
  - has almost an infinite capacity for storing info
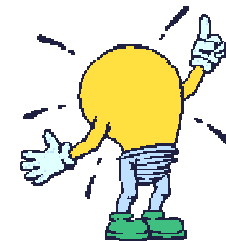 - contains all the info we can recall

P4.   Encourage the Effective Use of Memory

a.   How Memory Works ?

- effective transfer of info from **STM** to **LTM** is crucial for acquisition of knowledge
- to achieve the transfer, it is essential that the info **makes sense** to the learner *(is meaningful)*
- **in a manageable chunk** (7-bits)
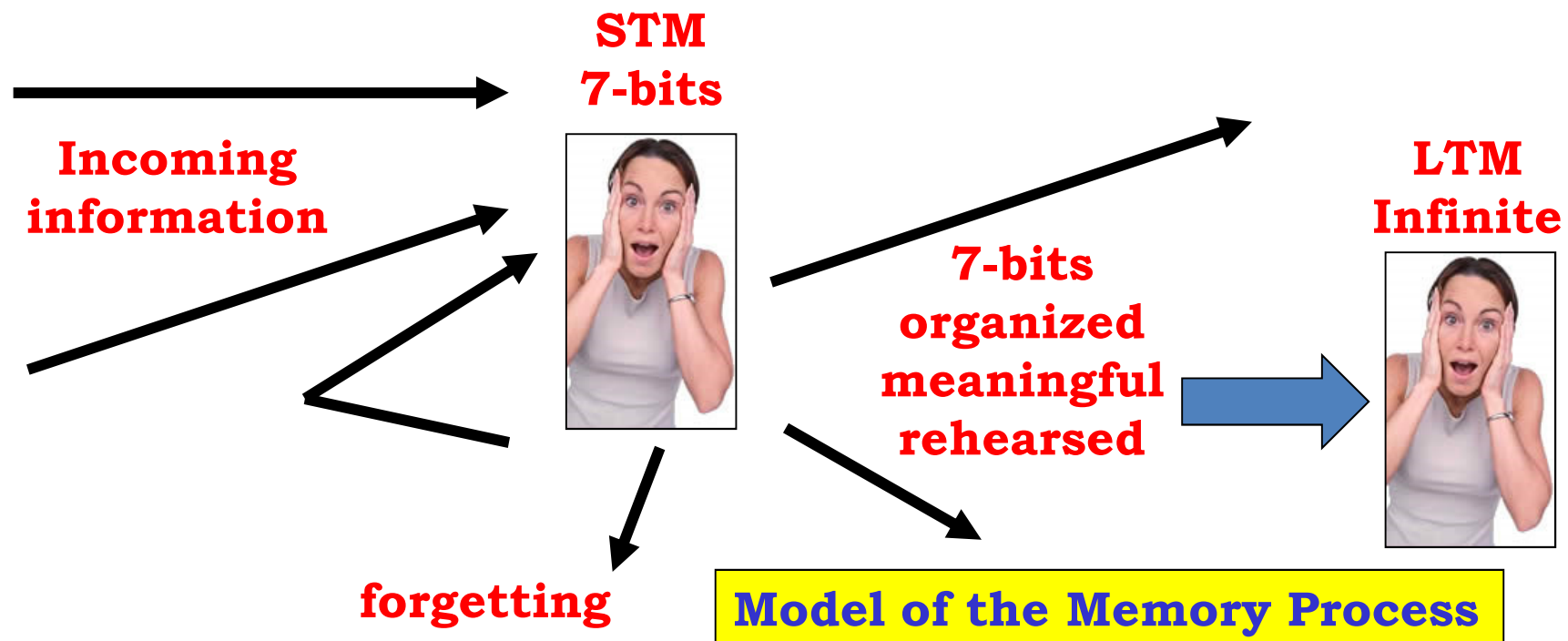- **is organized**
- **sufficiently rehearsed** (repeated)

P4.   Encourage the Effective Use of Memory

a.   How Memory Works ?

STM 7-bits

Incoming information

LTM Infinite

7-bits organized meaningful rehearsed

forgetting

Model of the Memory Process

P4.   Encourage the Effective Use of Memory

b.   How Forgetting Occurs ?

- **over 60% of factual information will be lost within 48hrs if there is no subsequent rehearsal or review of what was learned !**

- **skills & understandings are much more resistant to forgetting ! *(e.g. swimming, cycling, driving...)***

P4.   Encourage the Effective Use of Memory

b.   How Forgetting Occurs ?

- **deliberately memorize something (e.g. for exam), we are in fact engaging in 'rote rehearsal'**

- **by repeating something over & over again, we are able to keep memory vivid…however, it is impossible unless there is NO interruption !**

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P4.   Encourage the Effective Use of Memory

b.   How Forgetting Occurs ?

- **once he stops rehearsing the info, it will fade & disappear** *(e.g. remembering a phone # by repeating it aloud ! However if someone talks to you before you get an opportunity to call, you will likely forget the number instantly !)*

P4. Encourage the Effective Use of Memory

b. How Forgetting Occurs ?

- **'Rote Rehearsal'** – **NOT an efficient way to transfer information from STM to LTM…!**

- **putting info = meaningful codes also makes it more retrievable**…(e.g. 'folders' in filing & classification)

- **recovering info can be done by recognition & recall**

- **humans can recall memories that are stored in LTM and use them frequently…**

P4. Encourage the Effective Use of Memory

b. How Forgetting Occurs ?

- **if the memory is forgotten, it may be eventually be *recalled by hinting...***

- **the more stimuli a person is given (e.g. picture, etc.), the more likely a memory can be retrieve...**

- **that is why MCQ are often used for subjects that require a lot of memorization...!**

P4.   Encourage the Effective Use of Memory

c.   Implications for teaching & learning

- students must be aware of these basic principles of memory…
- save them from making typical mistake of trying to memorize too much too quickly…
- keep info well-organized…
- allow student time to digest the content through question & answer sessions…

P5. Try to Motivate Students in their Learning

- **Motivation – crucial for effective learning !**

- **Students can learn effectively & independently if they are interested...**

- **Challenge to Instructors –** to make learning more interesting, meaningful & active !

P6. Accommodate Different Learning Styles

- **individuals have own characteristics, ways of processing info, feeling & behaving in learning situations…**

- **different approaches & preferences in acquiring knowledge…**

- **overall picture – understanding of the task before they focus on more specific details & linkages…**

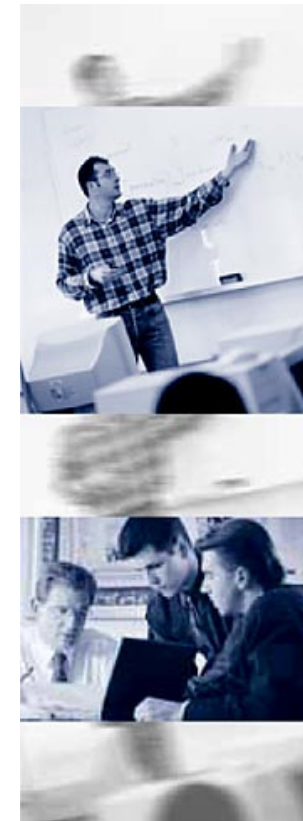- **approach task in a more sequential manner - making linkages gradually & methodically**

P6.   Accommodate Different Learning Styles

Sensory Modality in Learning :

- **Visual** – seeing pictures, words, diagrams

- **Auditory** – listening to explanations...

- **Kinestatic** – actually doing the activity !

P7.   Ensure Effective Feedback in the Process

- **identifies the present state of learning**

- **highlights what needs to be learned & suggest how to proceed with such learning**

- **monitors progress in learning, helping to diagnose problems quickly & find effective solution…**

- **provides positive reinforcement for learning achievements**

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Dunn & Dunn's 3 Basic Learning Styles
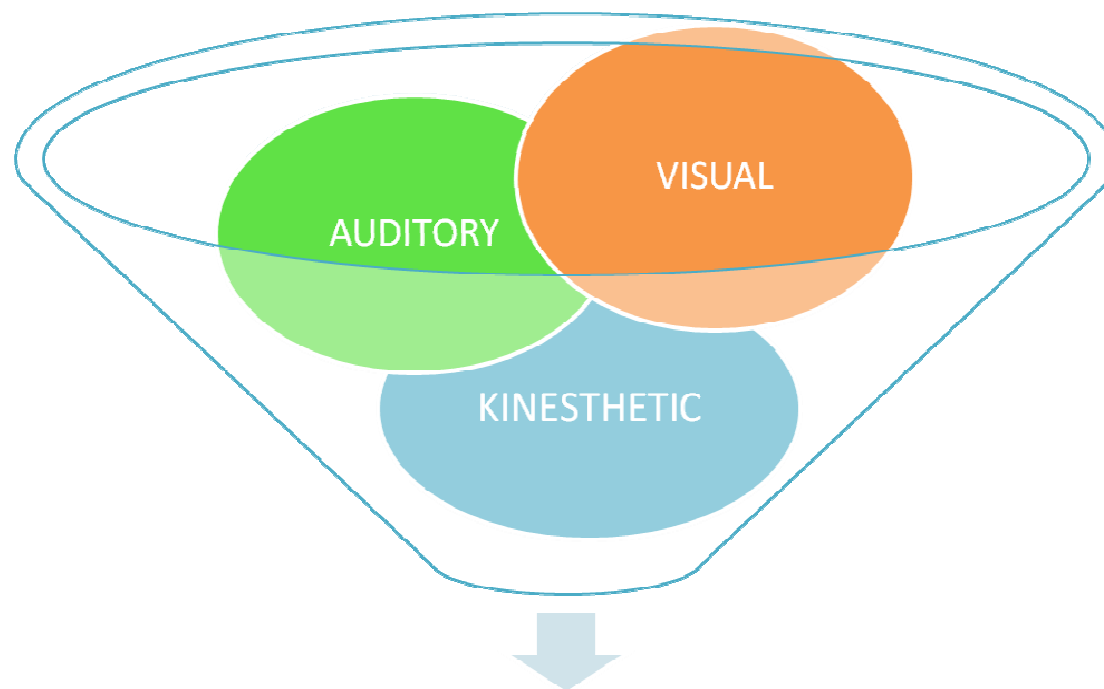
Participant's Retention Level

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Dunn & Dunn's 3 Basic Learning Styles

Visual Learners *(learn by seeing)*

A Visual Learner Learns Best by:

- **Taking Notes and Making Lists to read later**
- **Reading information to be learned**
- **Learning from books, videotapes, filmstrips & printing**
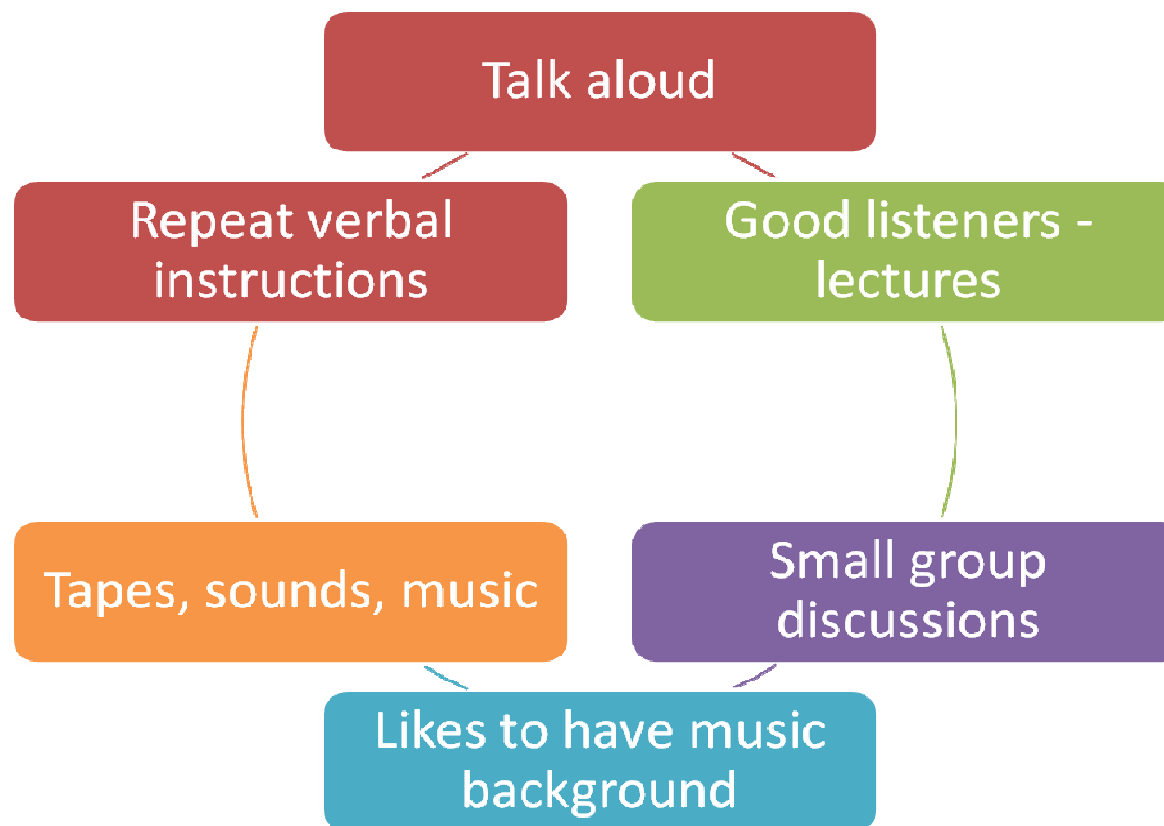- **Seeing a demonstration**

Dunn & Dunn's 3 Basic Learning Styles

- Talk aloud
- Good listeners - lectures
- Repeat verbal instructions
- Small group discussions
- Tapes, sounds, music
- Likes to have music background

Dunn & Dunn's 3 Basic Learning Styles

Kinesthetic Learners *(learn by doing)*

A Kinesthetic Learner Learns Best by:

- **Doing, hands-on approach** *(manipulation, objects, simulations, live events)*
- **Physical involvement in learning**
- **Field trips to gain knowledge**
- **Small group discussion** *(2-3 in a group)*

Dunn & Dunn's 3 Basic Learning Styles

Visual Learners *(learn by seeing)*

Auditory Learners *(learn by hearing)*

Kinesthetic Learners *(learn by doing)*

By using the appropriate learning strategy for each learning style, you can help to maximize the retention in the individual...!

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Honey & Mumford's Learning Styles (1982)

Based on Kolb's Experiential Learning Cycle, Honey & Mumford (1982) developed a model of learning styles by linking the different stages of Kolb's cycle to produce a model of four descriptions of learning called :

- **Activists,**
- **Reflectors,**
- **Theorists and**
- **Pragmatists.**

Honey & Mumford's Learning Styles (1982)

Activists

- **involve themselves fully without bias to new experiences**

- *they are open-minded, enthusiastic; constantly thriving for new challenges but are bored with implementation and long-term consolidation.*
- *they would enjoy learning through games, competitive teamwork tasks and role-plays...*

Honey & Mumford's Learning Styles (1982)

Reflectors

- **prefer to step back to ponder and observe others before taking action**

- *they are in general cautious, may be perceived as indecisive and tend to adopt a low profile*
- *the reflector prefers learning activities that are observational (like carrying out an investigation) and give allowance to ponder upon*
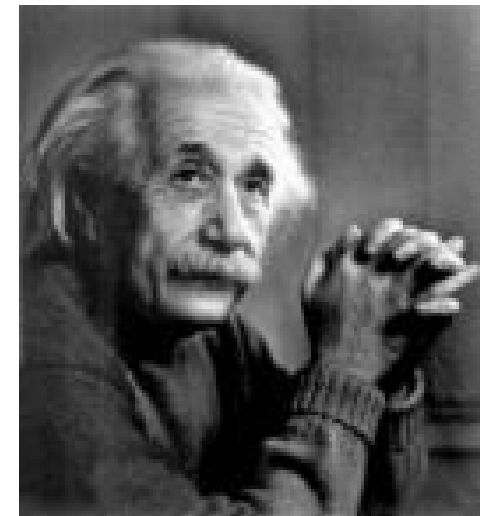
Honey & Mumford's Learning Styles (1982)

Theorists

- **adapt and integrate information in a step-by-step logical way**

- *they prefer to maximize certainty and feel uncomfortable with subjective judgments, lateral thinking and anything flippant*
- *the theorist prefers activities that explore the interrelationship between ideas and principles.*

Honey & Mumford's Learning Styles (1982)

Pragmatists

- **are keen to try out ideas, theories and techniques to see if they work in practice**

- they are essentially practical, down-to-earth people, like making practical decisions, act quickly on ideas that attract them and tend to be impatient with open-ended discussions
- the pragmatist prefers learning activities, which are as close as possible to direct work experience.

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How to enhance Learning Retention in Adult Learners ?

- **Activate his prior work experience.**
- **Relate what he has done to what he is going to learn**

How to enhance Learning Retention in Adult Learners ?

- Show him one example...
- Ask him for one of his/her example...
- Discuss how to apply it across other examples...

How to enhance Learning Retention in Adult Learners ?

- **Do an exercise or an activity.**
- **Make it interesting and meaningful**

How to enhance Learning Retention in Adult Learners ?

- **Get the class to reflect and critique one another...**

How to enhance Learning Retention in Adult Learners ?

- **SUMMARISE WHAT HAS BEEN LEARNT**
- **REVISE IT AGAIN THE NEXT DAY…**

Reflecting on this Module 1 :

- this module provided a model of learning and some of the key principals

- certain implications for the practice of teaching have been clearly identified

- learning is a complex process, influenced by many factors...

- students have their own distinct concerns, personalities & motivations

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Reflecting on this Module 1 :

- **as instructors, we try to understand both the general processes of learning & the uniqueness of each individuals we teach !**

We constantly learn about how **BEST**
to help Students learn
in the most effective ways for them !

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References :

1. Bloom Benjamin S. and David R. Krathwohl. Taxonomy of Educational Objectives: The Classification of Educational Goals, by a committee of college and university examiners. New York, Longmans, Green, 1956.
2. Gagné, Robert M. The conditions of learning and theory of instruction (1-20). New York: Holt, Rinchart and Winston, 1977
3. Jonassen, D., W. Hannum, and M. Tessmer, *"Bloom's Taxonomy of Educational Objectives"* - Chapter 12 of Handbook of Task Analysis Procedures. New York: Praeger 1989.
4. Kolb, David. Experiential Learning Englewood Cliffs, NJ: Prentice Hall,1984
5. Skinner, B.F. Beyond Freedom and Dignity. New York: Alfred A. Knopf, 1971 Watson, J.B. Behavior: A Textbook of Comparative Psychology. New York: Henry Holt & Co, 1914

References :

Borkowski, J., Carr, M., & Pressely, M. (1987). "Spontaneous" strategy use: Perspectives from metacognitive theory. *Intelligence, 11,* 61-75.

Brown, A. L. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, motivation, and understanding* (pp. 65-116). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Carr, M., Kurtz, B. E., Schneider, W., Turner, L. A., & Borkowski, J. G. (1989). Strategy acquisition and transfer among German and American children: Environmental influences on metacognitive development. *Developmental Psychology, 25,* 765-771.

References :

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist, 34,* 906-911.

Flavell, J. H. (1987). Speculations about the nature and development of metacognition. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, Motivation & Understanding* (pp. 21-29). Hillside, New Jersey: Lawrence Erlbaum Associates.

References :

Garner, R. (1990). When children and adults do not use learning strategies: Toward a theory of settings. *Review of Educational Research, 60,* 517-529.

Halpern, D. F. (1996). *Thought and knowledge: An introduction to critical thinking.* Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.

Livingston, J. A. (1996). *Effects of metacognitive instruction on strategy use of college students.* Unpublished manuscript, State University of New York at Buffalo.

References :

Roberts, M. J., & Erdos, G. (1993). Strategy selection and metacognition.
Educational Psychology, 13, 259-266.

Scheid, K. (1993). *Helping students become strategic learners:
Guidelines for teaching.* Cambridge, MA: Brookline Books.

Sternberg, R. J. (1984). What should intelligence tests test?
Implications for a triarchic theory of intelligence for intelligence testing.
Educational Researcher, 13 (1), 5-15.

Sternberg, R. J. (1986a). Inside intelligence. *American Scientist,
74,* 137-143.

Sternberg, R. J. (1986b). *Intelligence applied.* New York:
Harcourt Brace Jovanovich, Publishers.

Employability Skills are defined broadly as foundation skills and qualities that are transferable and critical to effectively learn new skills and be adaptable in the workplace:

- **Workplace Literacy and Numeracy**
- **Information and Communication Technologies**
- **Self-management;**
- **Work-related Life Skills**
- **Problem-solving and Decision-making**
- **Initiative and Enterprise**
- **Communications and Relationship Management**
- **Lifelong Learning**
- **Global Mindset**
- **Health and Workplace Safety.**

Questions ?

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THE END

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