

## Report on the *TLC 90 Minute Interactive Series* held on 26 FEB 2014

### TOPIC: LEARNING 'LEARNING' by Rajeev Sukumaran, TLC, IITM

Learning about 'Learning' has to be an interesting experience. In this 90-minute interactive session, the fundamental understanding by each one of us about the term 'Learning' was discussed.

Most participants agreed that "*Learning can be defined as a change in behavior as a result of experience*" as an accepted definition in the context of engineering learning and in the given institutional context. Further probe to arrive at a learning statement for respective department was considered.

For ex., *Learning Electrical Engineering in IITM means.....*

As most of us teach; the term 'Teaching' had also been discussed. The role of a teacher as a *catalyst* and the need to have a *teaching statement* would bring in a lot of clarity among teachers was stressed upon. Also clarity on the term *Teacher as a Facilitator for Learning* was discussed.

There was a brief questioning on *why would any human learn anything at all ?* helped participants to introspect on how we think and why we think to learn. Some clarity with respect to how much information can one learn, acquire and construct as knowledge his/her life time, was examined.

A short experiential learning demonstration of how mere 'Reading' contributes very less to understanding; and the importance of thinking while reading, writing and interacting for improved understanding was realized.

There were also discussions on how our brain learns – whether information for learning has to be serially fed as a stream, or can information be provided to create learning spaces in the brain and further fill it with finer details is the right strategy?

The classical understanding of how an individual perceives thoughts and how thoughts constitute learning, how one gains intelligence due to learning and how it leads to develop attitude, and how our attitude helps in building aptitude and skills, and also on how our aptitude helps us to create the foundations for the construction of knowledge, were discussed.

The session also brought about the need to enhance our understanding on how our brain learns and what strategies can help maximize this learning.

Some take away from this session:

- Learning is acquiring new, or modifying and reinforcing, existing knowledge, behaviors, skills, values, or preferences and may involve synthesizing different types of information.
- Anyone is inherently motivated to learn; if they realize that the new information is going to be useful for them in their future.
- Learning is not compulsory; it is contextual.
- Learning context is as much important as the learning content.
- Creating learning spaces in the brain is as much important as the content itself.
- Thoughts are perceived and not received.
- Anything that is not thought about well is not learnt, and anything blindly copied is also not learnt.
- Think & Read, Think & Write, Think & Discuss maximizes learning.
- Thoughts perceived leads to learning, learning leads to intelligence, intelligence leads to attitude, attitude leads to aptitude, aptitude helps knowledge construction.

**References:**

1. Bransford JD, Brown AL, Cocking RR. How People Learn: Brain, Mind, Experience, and School. Washington, D.C.: National Academy Press; 1999.
2. Fischer, K, Immordino-Yang, M.H. The Jossey-Bass Reader on The Brain and Learning. San Francisco, CA: John Wiley & Sons, 2008.
3. Sousa, D.A. How the Brain Learns Thousand Oaks, CA, Corwin Press 2006.
4. Non Associative Learning - <http://academic.brooklyn.cuny.edu/psych/delam/53.1/Nonassoc.htm>
5. Types of Learning - <http://home.epix.net/~tcannon1/Physioweek10.htm>

Final Note: Participants strongly felt that there should be such interactive sessions on a continuous basis to help clear our myths and help build on each other’s strengths to have a conducive learning atmosphere in IITM.

**Feedback from Participants:**

NO	FEED BACK
1.	Perception of Learning is important Confused about Learning in Structured ways, etc. discussion
2.	Things Learned: The process of learning (Methodology), Right & Wrong ways to learn. Things interested to learn: i) How to apply this learning Process? ii) How to teach others in an efficient way?
3.	1) I understood, a basic step involved in learning 2) Mainly I learned from his attitude. It is important for presenter through his action reaction to audience. 3) Still I do not understand audience mentality while teaching.
4.	1. I Wanted to share Something 2. Think of Climax of 2012 MOVIE 3. World Ends but that ship Contains Cluster of different domain people. 4. So, we don’t have anything now, the world Ends. 5. But we grouped together and think of what we can do to survive by what we have learned fill. 6. That’s learning. We are learning for Surviving → Very Simple.
5.	1. Learning does not happen by copying. 2. Learning happens effectively when you think properly, read and followed by discussion. 3. Always think before you start writing. (That’s why I made a mistake alone and was forced to cut it down!!!)
6.	1. From this session; I found that Learning is a Process; which is not stoppable. ( i.e; it will not reach ), For that minimum requirements is important. 2. Communication is the main key for success.
7.	WHAT I LEARNED? There are lots of Things to understand and learn about “Learning “. WHAT I DIDN’T LEARN? Which is the effective method to learn subjects or other things?
8.	From the today’s session I learn – 1. Difference between knowledge information 2. Definition of learning Teaching etc. 3. Classical ways of learning to make it simple 4. What are preparatory things for effective learning
9.	Learning Outcome: Definition of teaching; Learning; Process of learning;
10.	Shortcomings: Concept of the fact that ‘Reading is not Learning’
11.	Learned: Good Sequence to learn something I. Think & Read II. Think & Write III. Think & Discuss IV. Copying without thinking about it doesn’t result in learning Wanted to Learn: Find out how to identify which type of i/p results in better learning for a person. Find out hoe this varies among people.
12.	Learned: Process of Learning by brain & ability of brain to collate things. Doubt: Like to know --- > how the new generation on be made to listen?
13.	Learned: Think and learn (read; write), it helps more in learning. Doubt: How the brain can be more concentrated by weaving.

NO	FEED BACK
14.	1. Learning Outcomes: Motivation behind learning; and on understanding of why we don't learn certain things. 2. Suggested Addition: What I did not understand is why some individual lose in learning over a period of time.
15.	One thing learnt: I learn that learning does not happen in a way I used to think it does. Want to Know: Skills to impart a good learning experience.
16.	What I have learned: The process of acquiring knowledge
17.	Learnt: Providing information is not teaching, processing is important. Not Learnt: How different students learn?
18.	Learning Outcomes: I am able to define what is learning. I am able explain how and why we learn Fuzzy point: Does knowledge lead to learning or learning leads to knowledge ?
19.	One thing I have learnt: Learning involves conscious effort. Its experiencing information & various ways to experience it like Think ; discuss etc. Thing I have not understood: 'Structured learning ' vs 'connect the dots' approach. Want to know more on connect the dots approach.
20.	LEARNT : How students typically read. NOT- LEARNT : Is learning definitely a skill?
21.	Learned from this class: I just learned "how to learn", How our brain starts to function while in learning process. Not Learnt: What are all the ways to learning?