

NEUROLOGICAL COMPETENCY DEVELOPMENT MODEL OF LEARNING, UNLEARNING, AND RELEARNING FOR CORPORATE EMPLOYEES

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ABSTRACT

Post pandemic, the world is changing at unprecedented speed; so are the business needs. The work, which was once believed cannot be done distantly, was successfully carried out working from home.

The Learning and Development (L&D) team have been the frontline worker helping the employees accept the new normal business models during the uncertain times. The job of L&D is to train and align the employee competencies in such a way that their performance outcome gets aligned with organizational goals. Virtualization of the learning and development content was not something unanticipated or unwanted, however the speed at which it happened during pandemic was unexpected. Learn, Unlearn, and Relearn has been the key to any transformation.

This review paper not only reviews the multiple widely accepted teaching learning theories, but also combines them to create ‘Neurological Competency Development Model’. The functional knowledge of various elements from this model, in relation with the competency, can be leveraged by corporates for the process of analysis, learning, unlearning, and relearning in the post pandemic new normal.

Key Words: Competency Development, Training, Learn Unlearn Relearn

INTRODUCTION

Over a period, people start taking things for granted, meaning they unconsciously start assuming that the world will remain same forever. Now, with pandemic, the world as we knew, is not the same anymore. With pandemic, the business needs changed, processes changed, method of communication changed too. This obviously required *unlearning* and *relearning* in order to develop newer competencies to work efficiently in the new normal.

Unlearning is the process of coming out of a shell of skills and knowledge, with the support of which an individual has been sustaining in a certain environment. (Mitra, 2021)

Relearning is the process of continuous renewal of competencies. With time and advancements, the older competencies need upgrade. Dr. Ken Spring, a professor of sociology states, “Our brain takes the most convenient information available when it comes to learning something new”. This gives another perspective regarding why it is essential to unlearn and relearn with right and relevant information.

The social life crumbled as the world resorted to lockdown. The sudden change in competency requirements had a denial effect on employees. To fit in the new normal, the corporates had to renew processes, and the employees had to unlearn-relearn technical and behavioral competencies.

In business management, a learning organization is a company that facilitates the learning of its members and continuously transforms itself. (Pedler, M., Burgogyne, J. and Boydell, T., 1997)

This is a review paper. Next section discusses the reviews of the literature w. r. t. various neurological aspects of learning and competency development process.

LITERATURE REVIEW

Following theories / models were studied for corporate competency development from the learning development point of view. They are critically evaluated on the basis of their usefulness in learning, unlearning and relearning process in a corporate set up.

1) NLP Communication Model (Bandler, R. and Grinder, J., 1975):

Richard Bandler and John Grinder developed Neuro Linguistic Programming (NLP) as a model which shows the process of how people communicate to themselves and others. They published their work in a book titled - “The Structure of Magic” (1975). This model explains how human brain processes the information that is received from outside. One of the important presuppositions (belief) of NLP is that "The map is not the territory". People keep on developing their mental map (perception) of the world depending upon the experience and interpretation of the information received. However, the perceptions (map) are not realities (territory). And so, the internal representations (I/R) that is created about an outside event may not be the event itself.

As shown in the Figure1, the NLP communication model talks about mental Filters which Delete, Distort, and Generalize the information to create I/R of the external events. I/R includes sound, pictures, feelings. A state of mind is combination of I/R and physiology. The state of mind then may trigger behavioral response.

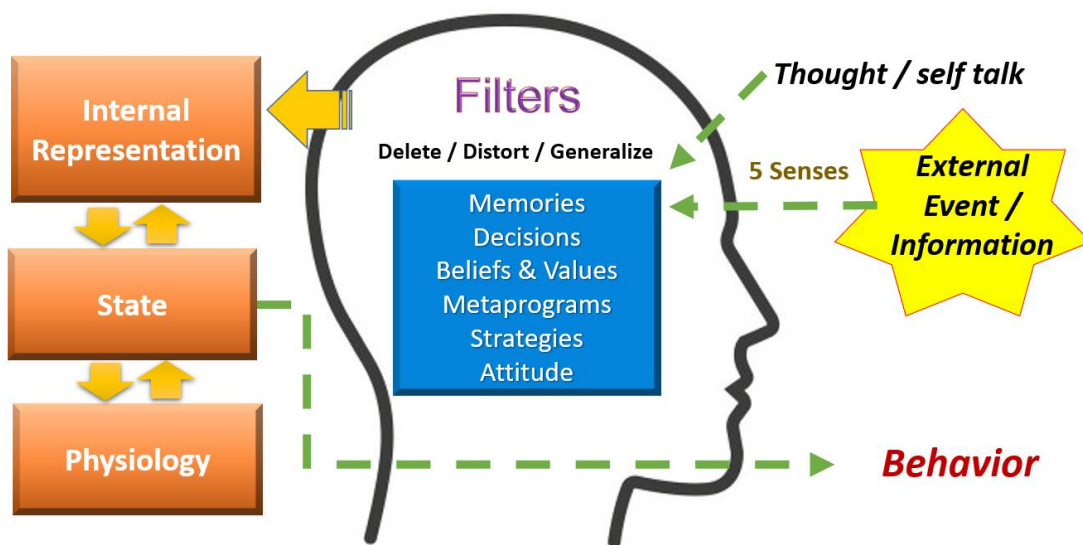


Figure 1. NLP Communication Model

(Source: Researcher’s Contribution. Created based on the NLP Communication model description)

NLP communication model is an insightful one that explains about the creation of perceptions. This can be used in content creation and delivery to minimize the information deletion or distortion by the learners.

Limitation: It is a generic communication model and does not discuss competencies development.

2) Expectancy Value Theory (Vroom, 1964):

The theory postulates that, people are motivated to put efforts for the required action (E.g., putting efforts in learning) when either of the following two condition are met –

- i. Expectancy: when they believe that they can perform well in the given task (E.g., when a person expects to perform well in computer graphics, he/she will be motivated to put efforts in learning the same)
- ii. Value: when they believe that the outcome of their efforts will lead to a valuable reward. The reward can be external (E.g., Monetary, Promotion, etc.) or internal (E.g., Satisfaction, Pleasure, etc.)

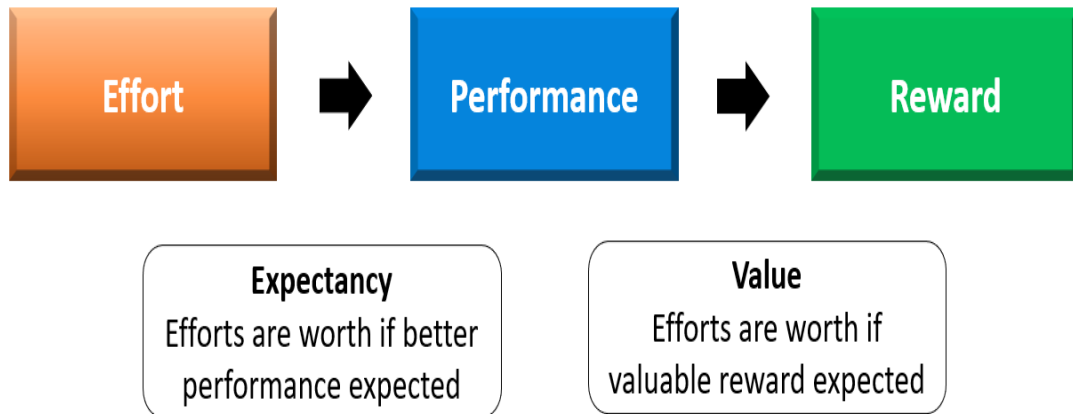


Figure 2.Expectancy Value Theory

(Source: Researcher’s Contribution. Created based on Expectancy Value Theory description)

The Expectancy Value theory helps in identifying some of the learning hurdles. Same can be used for the educators and coaches.

Limitation:The theory does not consider other factors beyond the Expectancy and Value.

3) Knowles’ theory of Andragogy (Knowles, 1984):

Pedagogy is the teaching methodology for children which is quite different from Andragogy (meaning adult teaching methodology). In his book “Andragogy in action”, Knowles provides a practical guidance to the theory and practice of Andragogy. The key *Principles of Andragogy* are as follows -

- i. Adults need to be involved in the planning and evaluation of their instruction.
- ii. Experience (including mistakes) provides the basis for learning activities.
- iii. Adults are most interested in learning subjects that have immediate relevance to their job or personal life.
- iv. Adult learning is problem-centered rather than content-oriented.

Very useful and practical principles for learning content design. They are even applicable for modern e-learning content design and delivery.

Limitations: Learning to performance process has more elements (E.g., Cognitive, emotional), which are not discussed. The theory is based on 6 assumptions. All of them may not be true in all the contexts.

4) Social Cognitive Learning Theory (Bandura, 1977) :

Bandura’s Social Learning Theory (SLT) proposes that people learn behavior from others (models) by the process of observation, imitation, and modelling. He observed three types of modelling.

- i. Live Model: For example - by observing behavior of a colleague.
- ii. Verbal instructional model: For example – from the description of a behavior.
- iii. Symbolic model: For example – behavior of a fictional characters from books/films.

He also observed that the state of mind plays important role in learning.

In 1986, Bandura renamed SLT to Social Cognitive Learning Theory (SCLT).

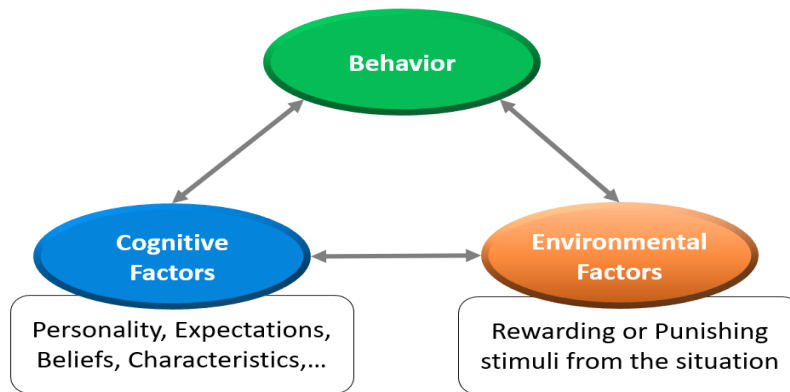


Figure 3. Social Cognitive Learning Theory

(Source: Researcher’s Contribution. Created based on SCLT description)

In 1990, he proposed that cognitive processes, environment, and behavior interact and influence each other.

- Cognitive component are beliefs, developed characteristics, expectations, and personality traits.
- Environment is a situation which provides the stimuli (rewarding / punishing).
- Behavior refers to anything that people do in the environment.

The effect of environmental and social factors on learning: The rewarding behaviors are more likely get repeated; Whereas, punishing behaviors are more likely dropped.

5) Cognitive, Affective, and Behavioral (ABC) Model of attitude (Rosenberg & Hovland, 1960) :

The ABC model of attitude, also known as the tripartite model, proposes three components of attitudes.

The *affective component* of attitude refers to how people feel about the stimuli. This generally is result of older memories/experience related to the similar situation.

The *behavioral component* of attitude refers to what people intent to do when they encounter the stimuli.

The *cognitive component* of attitude refers to what/how people think about the situation when they encounter the stimuli.

The cognitive and affective components are often interrelated. The sequence in which these components lead each other, on occurrence of stimuli, depends on the personality, context, and the stimuli.

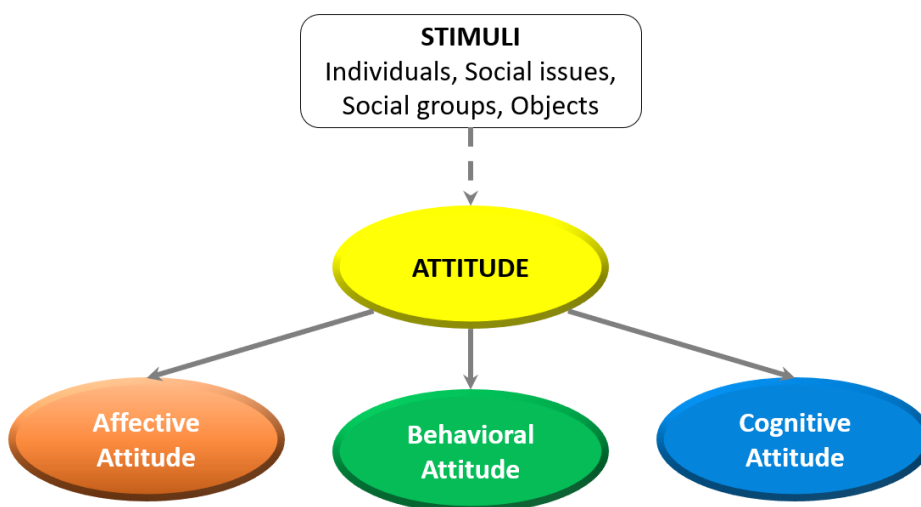


Figure 4. ABC model of attitude

(Source: Researcher’s Contribution. Created based on ABC model)

The ABC model gives excellent basis to understand relationship between cognition, emotion, and behavior.

Limitation: Social psychologists are of the opinion that behavior should not be included under attitude.

6) The meaning of Competency(Hoffmann, 1999):

This article describes competency definition from various standpoint. At high level these definitions can be classified into two categories – Output based, and Input based.

Table 1. The Meaning of Competency

	Individual Competency	Corporate Competency
Output Based	Performance, Standards	Benchmarks
Input Based	Knowledge, Skills, and Abilities	Distinctive Strengths

- i. Output based competencies: They are used for relatively simpler work profiles.
 - **Performance**: The job competencies are the behaviors which people are expected to display to do a job efficiently and effectively. Performance is taken as a proof of existence of a competency (skills, knowledge, and ability).
 - **Standards**: Competency is defined by the quality of performance. The setting of standards helps in raising standards from where they have previously been.
- ii. Input based competencies: They are used for diverse work profile.
 - **Individual Characteristics**: The job competency in this category is defined by the underlying characteristics of a person. These characteristics help in effective and/or superior job performance.
 - **Job Demands**: Jobs have their own set of requirements based on the environmental factors and defined in terms of underlying attributes.

The training programs can be designed based on the outputs demanded or inputs needed

7) Learn Unlearn Relearn (LUR) model (Azmi, 2008):

The model advocates building FAST organization culture to deal with volatile market/business demands. The FAST culture symbolized by flexibility, tactfulness, , agility, and steadfastness.

- Flexibility: A flexible firm is successful in implementing the freedom of time, space, and work in the business operations.
- Agility: Agility of a business organization is defined by their ability to respond to the changes and evolve continuously.
- Steadfastness: Steadfastness of an organizations is defined by their commitment, and persistence towards attainment of the corporate goals and vision.
- Tactfulness: Tactfulness is the ability of organizations to take wise decisions under uncertainties. It essentially requires out-of-the-box thinking.

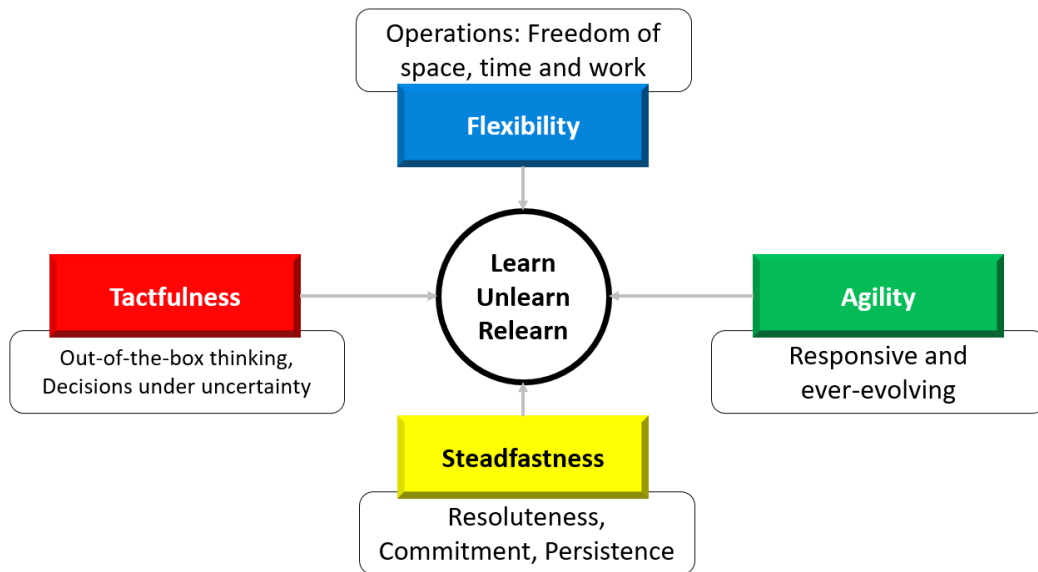


Figure 5. LUR – FAST Culture

(Source: Researcher’s Contribution. Created based on LUR model description)

Mindset barrier: The article also discusses the mindset barrier to implementation of LUR model as follows:

Table 2. Mindset Barrier

Organizational barriers	General thinking
Perceptual barriers	There is no need
Cultural barriers	Things here will never change
Motivational barriers	Efforts do not get rewarded
Emotional barriers	We have always done it this way
Intellectual barriers	I know what I am doing
Resource barriers	The budget does not permit
Psychological barriers	The boss will get angry

Relearning: The model discusses two ways of planning the relearning for proactive and regular organizational change

- **Time-pacing:** It is a strategy where changes are scheduled at predictable time intervals. For example – Gordon Moore, co-founder of Intel Corporation, predicted the processor (CPU) speed would double every 18 months. (Moore’s law)
- **Event-pacing:** This is strategy of scheduling the changes with events. For example, change in competitor strategy, shift in technology, change of law, etc.

Unlearning: The model discusses forms of forgetting on the basis of the planned-unplanned and positive-negative consequences

Table 3. Organizational Forgetting

	Planned	Unplanned

Positive Consequences	Unlearning	Decay
Negative Consequences	Sabotage	Negligence

- Negligence: This is unplanned loss of organization’s data, information, or knowledge due to lack of care.
- Sabotage: This is deliberate destruction of organization’s information. For example, cyber threats from outsider or insider.
- Decay: This refers to the process of natural loss (i.e., decay) of old skills and/or knowledge.
- Unlearning: This is active and deliberate attempt towards strategic planning.

The LUR model gives wholistic perspective on learning, unlearning, and relearning of an organization.

Limitation: The model doesn’t focus on individual competency

METHODOLOGY AND ANALYSIS

Independently, the existing theories either address a part of the process or they are too generic. *Neurological Competency development model* is a logical combination of the theories / models discussed in the literature review section. The process of competency development, in a corporate, begins with the identification of training needs.

1. Identification of Training Needs

Organizations define competency development framework (Ali, 2021) which becomes the basis for Learning & Development (L&D) to assess the competency gaps and plan the trainings.

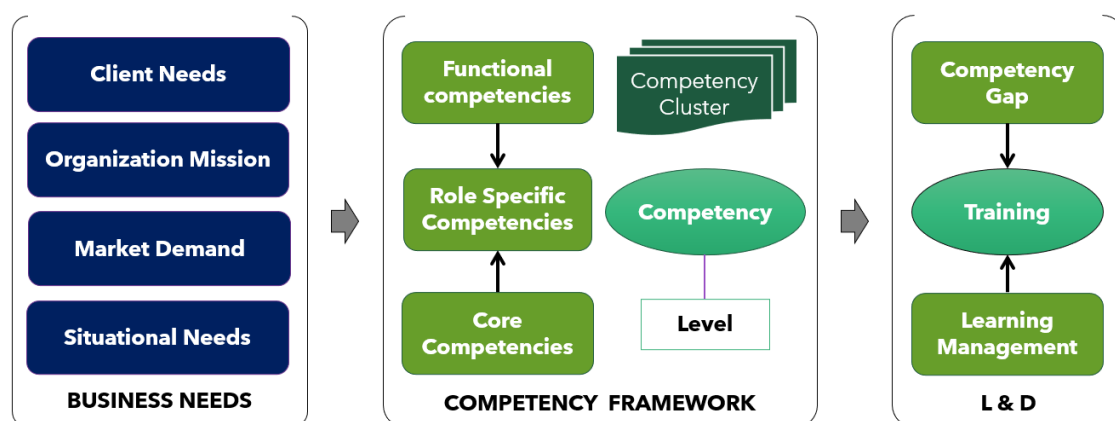


Figure 6. Identification of Training Needs

(Source: Researcher’s Contribution)

The competency framework is developed on the basis of Business needs like - Client needs, Organization’s mission, Market demand, and Situational needs.

Competency clusters are formed by classifying the organizational competencies. For example - Personal Effectiveness competencies, Academic competencies, Technical competencies, Functional competencies, Management competencies, etc. (U.S. Department of Labor)

The role specific competencies have following two components (IAEA)-

- i. Core competencies: These competencies help the organization gain a competitive advantage (E.g., Decision making, Teamwork, Adaptability, Problem solving, etc.)
- ii. Functional competencies: These are the professional competencies required for quality outcome (E.g., Accounting, Programming, Data analysis, Engineering, etc.)

Every competency is defined with expertise level. Stuart and Hubert Dreyfus in 1980, named the five stages of expertise: novice, competent, proficient, expert, and master. For example, leadership competency of a supervisor role demand higher expertise level than a junior engineer. The framework helps in various HR functions like recruitment, promotion, training, etc. This is done by assessing the existing competencies against the role specific competency parameters from the framework. Assessment leads to identification of gaps in the competency.

L&D organizes the trainings to fill the identified competency gap

Neurological Competency development process

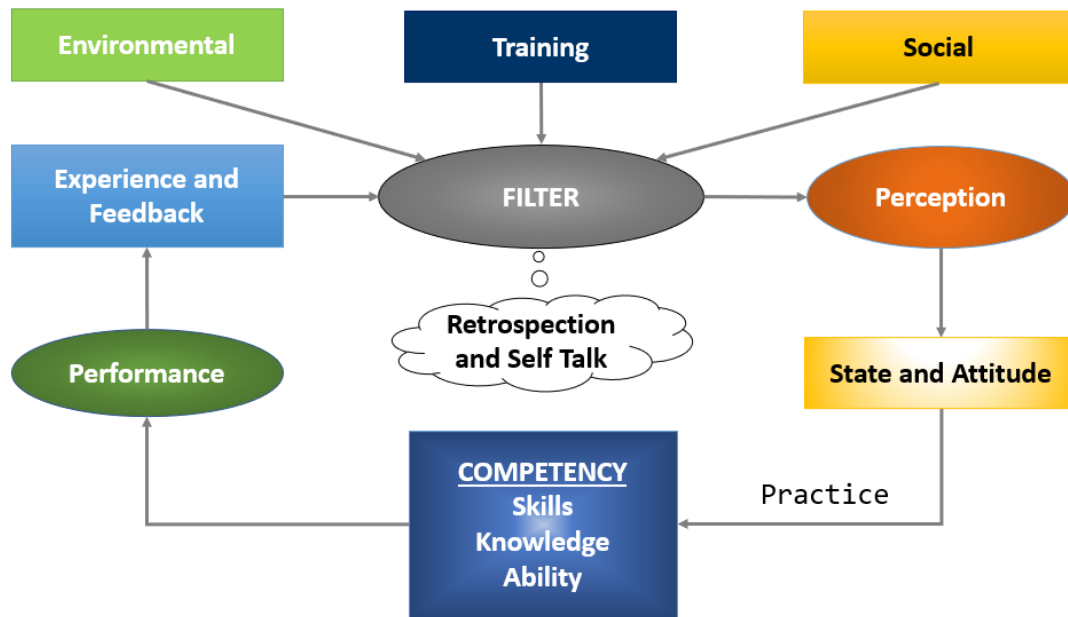


Figure 7. Neurological Competency Development Model

(Source: Researcher’s Contribution)

Learning Inputs: Learning at workplace happens formally and informally.

- i. Formal learning- Trainings from L&D.
- ii. Informal learning –
 - *Social factors:* For example- people learn by observing others as discussed by Bandura in the Social learning theory (Bandura, 1977).
 - *Experience* (including mistakes) provides the basis for learning activities in adults (Knowles, 1984)
 - The *feedback* (reward or punishment) on the performance from social and *environmental factors* affects the behavior that will more likely repeated or dropped. (Bandura, 1977)

Filter: As described by NLP communication model (Bandler, R. and Grinder, J., 1975) all the sensory inputs pass through mental filter. Based on the cognitive interpretations, a *perception* is formed. The interpretation triggers state of mind.

State and Attitude:

- As described by the ABC model of attitude (Rosenberg & Hovland, 1960), the input stimuli trigger Emotional and Cognitive responses.
- Emotions, together with physiology leads to a state of mind creation (Bandler, R. and Grinder, J., 1975).
- The state of mind helps in learning (Bandura, 1977).

- Learners are in motivated state of mind for various reasons. One of them is - how they expect themselves to succeed in performance after the learning, and how valuable is the reward of performance for them. (Vroom, 1964).
- The learner would also consider how much support he/she will get from their colleagues and clients for the behavior. The theory of planned behavior(Ajzen, 1991) refers this element as ‘subjective form’.
- According to Maslow’s theory of motivation, motivations are driven by unsatisfied needs (Maslow, 1954). So, fulfilling the unsatisfied needs becomes intrinsic value that a learner may seek. For example, the unfulfilled need in corporate context could be – ‘Need to stay relevant in the business’.

Eventually, the learning when repeatedly practiced, leads to competence building.

Competency: It is defined with underlying attributes, required of a person to achieve competent performance (Hoffmann, 1999). The tree underlying attributes of a competency are- Knowledge, Skills, and Abilities (including the ability to apply skills and knowledge).

The four abilities mentioned by Learn-Unlearn-Relearn model under FAST culture are- Flexibility, Agility, Steadfastness and Tactfulness (Azmi, 2008). These are the essential abilities required for the process of unlearn and relearn.

One of the less discussed but very effective way to improvise is self-talk. Together with self-retrospection, it becomes a powerful tool of self-learning and continuous improvisation.

Self-Talk: This is how one talks to oneself. Self-talk has been central in cognitive behavioral modification (Meichenbaum, 1977). What people say to themselves affect the way they behave (Ellis, 1976). With conscious effort, one can generate positive self-talk. According to HealthDirect, the Australian Govt approved health advisory service, following are the benefits of self-talk (HealthDirect, n.d.) -

- ✓ improves self-esteem, stress management, and wellbeing
- ✓ reduces symptoms of depression, anxiety, and personality disorders
- ✓ improves body image and can help treat people with eating disorders
- ✓ reduces risk of self-harm and suicide
- ✓ makes one feel more in control of their life
- ✓ helps with chronic pain
- ✓ motivates to overcome obstacles
- ✓ helps to calm

With all the above benefits, positive self-talks help people balance their mental wellbeing even in crisis, like pandemic.

Beyond competency: The scope for further research

When pandemic disrupted the normal business processes and social life, people went through following 5 psychological states from *Denial* to *Acceptance*.

- i. **Denial:** When the situations change unexpectedly, the beliefs and assumptions about the world, that it will continue to remain same, is broken. The shock leads to Denial state.
Proposed Solution: Contextualize the information while learning. Truth/validity of any information depends on the context. Therefore, adding context prevents the generalization of information.
- ii. **Anger:** Fear of losing the existing knowledge, skills, and ability due to new situation, leads to Anger and frustration.

Proposed Solution: Anger helps in making one feels momentary sense of control. It is good to let it out as long as it is short in duration and under control. People may constantly remind themselves that change is the only constant thing.

- iii. **Bargaining:** People try to find ways to get back to older ways of operating, even if that leads to loss. The most difficult part of relearning is stopping oneself going back to older ways.

Proposed Solution: There can be two approaches. (a) if applicable, continue with hybrid approach with clear phase out timelines. (b) Burn the boats. Decline the urge to get back to older ways. “Say NO to what no longer serves the purpose”.

- iv. **Depression:** People build their long-term goals (mission) by assuming the present situation to continue. When this assumption gets broken, they become unsure about their life mission. They lose their identity which was gained with experience.

Proposed Solution: Try to keep emotions out of the situation and let the logical brain take over, till the emotions settle. Take the neutral approach to critically evaluate the situation. With practice, the new things become familiar (Mere-exposure effect) (Zajonc, 2001), and one starts seeing the merits of the new situation. Build new identity. This time it won't be from zero. It will be based on the learnings from past.

- v. **Acceptance:** This is the final stage when people are ready to move on with new normal.

The proposed solutions under each state are from the realm of Coaching and Counselling. The scope of the *Neurological Competency Development Model* was confined to competency development; However, study of above mental states goes beyond competency. Hence, it calls for further study.

CONCLUSION

The Neurological Competency Development model takes wholistic view about the corporate competency development. It explains the relationship between Environmental, Social, and Neurological aspects which contribute to the competency development.

1. The model can be leveraged for various competency development purposes including learning, unlearning, and relearning.
2. Flexibility, Agility, Steadfastness, and Tactfulness are the essential attributes (abilities) of the competencies required for learning, unlearning and relearning process.
3. Regular retrospection and Positive self-talk are great supporting tool for learning, unlearning, and relearning.
4. Unforeseen environmental and social changes may trigger states of mind like- denial, anger, bargain, and depression. Coaching, Mentoring, and Counselling can help people in accepting new normal.

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