

## **Lean Learning and Development: The Transformation in Information Age**

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*This paper is a qualitative and exploratory study on the future of learning and development which is popularly known by the name of training and development or human resource development. With the advent of computers in 1970, the transformation began. Gradually, sophistication in systems brought new ways of transactions and communications. The role of people in the organization is fully changed now. They are free from redundant work, now what they do is called knowledge work and they themselves are called knowledge workers. Knowledge workers are wholly different in their expectations and deliveries. The conventional treatments related to recruitment, attendance, learning, motivation, and appraisal has undergone a thorough shift. This paper explores the manifestation of this shift in the area of learning and development. Firstly, it covers the general introduction of learning and development, then unfold the meaning of learning and development in information age which is also called digital age or multimedia age. It then explores points of wastage, overburden and unevenness in learning and development and then presents an exemplar as figure 2 to make the learning and development lean.*

**Keywords:** Learning and Development, Information Age, Lean Learning and Development.

**Field of Research:** Management

### **1. Learning and Development**

The term training and development, in the year 2000, has been superseded by learning and development. CIPD (Chartered Institute of Personnel and Development) argued that training and development evokes the touch of master-slave relationship between employer and employee (Rosemary, 2005). It is the result of today's reformed times where employee is considered to be the partner or associate in the business. Here to understand the backdrop of learning and development, the terms training and development and learning and development are used interchangeably. The function of human resource management aimed at bettering the performance of individuals and groups in organizational setting is called training and development.

According to Malhotra and Phull (n.d.), Training is the scientific process of improving the knowledge and skill of employees for doing a particular job. Training is essential and important management tool used by organizations which equips them to develop the effectiveness of people in the organization. Ivanovic and Collin (2003), in the Dictionary of Human Resource and Personnel Management, defines training as: the process of being taught how to do something (p. 261).

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Armstrong (2009) stated, employee development, often referred to as Human Resource Development (HRD) is about the provision of learning, development and training opportunities in order to improve individual, team and organizational performance (p. 491-492).

Training and development encompasses three main activities, namely- training, education, and development (Garavan N. Thomas, Costine Pat & Heraty Noreen, 1995; Montana H. Patrick & Charnov H. Bruce, 2000; Harrison Rosemary, 2005). Training is basically focused on the job the incumbent currently holds, education is focused on the jobs that an incumbent may hold in the future, and the development is focused on individual as a part of the organization partaking in the future.

## **2. Learning and Development in the Information Age**

In last few years, the organizations worldwide were left with no option but to cut cost and made many other tough adoptions to stay feasible. According to Bishop (2011), the choices made by these organizations say a lot about their commitment to employee development (p. 39). The past few years have been particularly testing for learning and talent development (L&TD), the spotlight on training budgets in a bid to reign in their costs (People Management, 2011, p. 40).

US spending on corporate training grew by 15% last year (the highest growth rate in seven years) to over \$70 Billion in the US and over \$130 Billion worldwide (Bersin, 2014). Most of the organizations find competence gap as one of the top reasons hampering their growth. According to Prayag (2012), Indian companies will have to double their spends on workforce training as they move from cost-based to value-based offerings. Although conventional training is going on, companies now have to map and build people to add value as this is how India is going to stay ahead.

Kornacki (2009), Paul Fairhurst from the Institute of Employment Studies introduced his concept of the T-shaped L&D professional. He explained that the vertical line of the 'T' is the L&D skill set, the area L&D professionals are currently strongest in, but the horizontal line – business orientation – requires development if they are to succeed within post recessionary organizations (p. 22). According to Schmidt and Cohen (2013), if the current pace of the technological innovation is maintained, most of the projected eight billion people on earth will be online (p. 6).

Training is no longer enough. Technology now gives us the opportunity to do much more, and we have the responsibility to do it (Quinn, 2014, p. 59). Learning is undergoing redesign to match how people really learn. Making a PowerPoint and adding a quiz to it is not going to make an impact, rather, the courses will have to be designed with meaningful practice and will have to be resourced with the least amount of additional material when it meets the necessary criteria. People are living longer-and cities may well play a role in extended life-spans (Liotta and Miskelp, 2012, p. 19). The technology infuses all the areas. The new economy is about dynamics, not static efficiency. The business will need to anticipate economic and demographic developments and bring products and services into line with the changing customer base in the markets which, at any cost, is not possible without trained and versatile human resource.

### **3. Points of Wastage, Overburden and Unevenness in Learning and Development**

Training is a process. According to Wills (1998), the training process is a cycle that you need to manage continuously (p. 23). Training as a process has four steps:

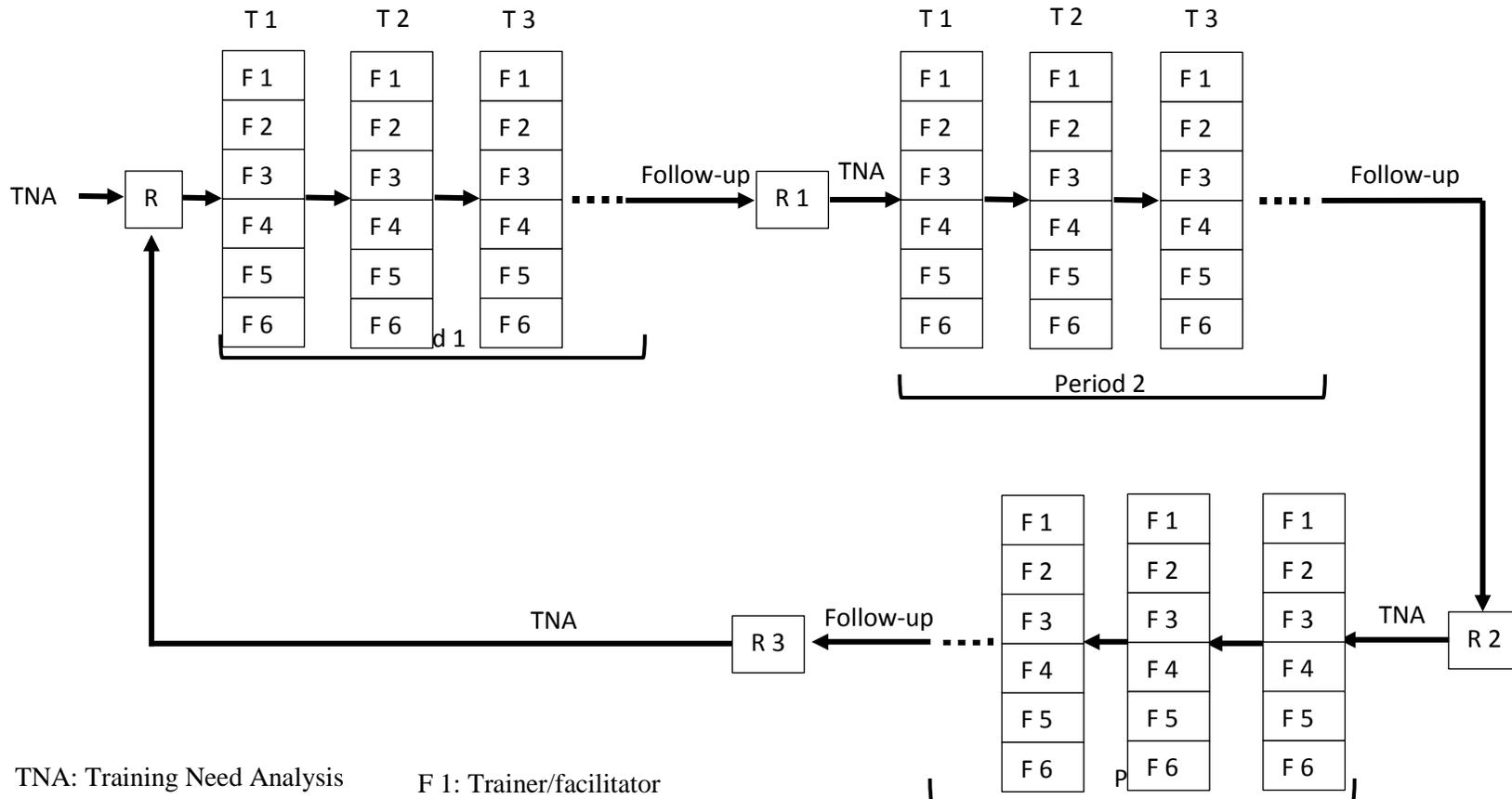
1. Training Need Analysis
2. Program Delivery
3. Program Evaluation and Appraisal
4. Follow-up Programs

Conventional training has its set procedures according to situations. There are long methods for every step like the popular methods of training need analysis are observation, interview, questionnaire/surveys, job description, gap analysis, performance appraisal, focus group, competency mapping and assessment centers, advisory committees, critical incidences, tests, problem solving conference, recommendation of seniors and review of documents on existing training. Whether chosen one or a mix of more, it is highly time and effort consuming, moreover it takes too long that the analysis results get obsolete and makes little sense. These need assessment results are static meaning thereby the input data is processed after significantly long period of time as compared to real-time in which input data is processed within milliseconds so that it is available virtually immediately as feedback. Here a lot of money, effort and time are wasted. With this knowledge, the organizations skip to perform or perform a shallow or gut-based training need analysis that leads to the failure of entire training process as the premises turns out to be false; resulting in big boomerang in the form of employee demotivation, turnover, diminishing performance and wastage of valuable budgets.

In the same manner, the program delivery methods are like lecture/discussion, demonstration, games and simulation, brainstorming, storytelling, workshop, field trip etc. The trainers are least likely to speak and talk on the same material. They always have something to add and something to discard, some new way of saying and presenting in their mind. Moreover, the same trainer cannot be present everywhere to present the training. The knowledge or skill imparted by trainers are value added but adulterated sometimes. The genuine and authentic knowledge is gradually lost with some workable solutions. Moreover, the physical and mental well-being of a trainer plays a pivotal role in the transfer of knowledge. For training to take place, there are enumerable hurdles in the name of trainer/facilitator, program/content, place, time, staff arrangement and other logistics issues. The training program is heavily dependent on the availability and condition of the above all. All the trainees and the trainer has to be present at one place on the same time, the place should be arranged as per the specified mentions, some staff help too is required with other logistics arrangements. Moreover, the training will move with a pre-planned pace in the sequential manner. The time may not be suitable for each and every learner, he/she may be attending the training at the cost of some other important work. The place may not be suitable for all and may cost bigger money and time to reach there. Some people may be advance enough to directly move ahead to higher modules but the training will consume their productive hours and will activate passiveness in them. The logistics and staff, now a days, cost heavily. All the factors namely

trainer/facilitator, program/content, place, time, staff arrangement and other logistics issues has to be statically engaged for a certain period of time in a linear fashion.

The popular methods of evaluation and appraisal of a training program are observation, interview, feedback, performance appraisal, benchmarking, cost-benefit analysis, data mining, and factor analysis. They burden the process with many pre-training and post-training tasks like preparing questionnaire, printing them; distributing, collecting, tabulating, summarizing and reporting. This too is not real-time so doesn't deliver the expected results. Preparing report takes long time. The questionnaires are not filled sincerely that poses doubt about the validity of results. If so, the results will be misguiding the further training plans.



TNA: Training Need Analysis  
 R: The new trainee  
 R 1: One period old trainee  
 R 2: Two period old trainee  
 R 3: Three period old trainee  
 T 1: Training period 1  
 T 2: Training period 2  
 T 3: Training period 3

F 1: Trainer/facilitator  
 F 2: Program/content  
 F 3: Place  
 F 4: Time  
 F 5: Staff  
 F 6: Logistics

**Figure 1: Conventional Learning and Development for Level 1 Training**

The general notion about training programs are kind of holiday in the form of a benefit for promotion. The natural tendency of going back to previous stage gravitates. Hefty budget is allocated for follow up activities and stuffs. The popular methods of follow-up programs are orientation program, small reunion meets, quizzes, making groups/clubs, e-mail/letters, praise and motivation, phone/SMS, Stationary/gift/Memento, Assigning voluntary services, social media etc. All this goes unattended if the learnings they earned are not making a direct impact on their acknowledged growth. Moreover, these activities are uneven in their conduction that too makes the wastage and jag. The figure 1 illustrates the state of learning and development process for level 1 in its conventional setting. Figure 1 is an exemplar of level 1 training of a new trainee, where trainee is assessed for training needs through various tools and methods as mentioned above. R denotes novice trainee. After undergoing training programs T 1, T 2, T 3...Tn, sequentially for a training period, trainee attains the level of one period old trainee. The same way, he/she completes other trainings sequentially in subsequent time periods to attain the level of R 2 and R 3. Every training program consumes many a factors, as F 1, F 2, F 3, F 4, F 5, and F 6. The factors may be more in number and may be repeated. Follow-ups are very important here to keep the trainee on track. The trainee may go off-track and there won't be any objective method to know the degree of deviation from new learning. This portrays the scenario of the conventional training being imparted in most of the organizations.

#### **4. Lean Learning and Development**

Information technology has held the hands of all spheres of society and is at initiate stage. The future of training and development is lean learning and development. Lean learning means learning with least possible excess or deficit and waste. Lean Learning and development is not to have much heavysset on the training process. It is the optimum utilization of training resources and components. Lean training and development is planning the training in order to yield best possible results with least consumption of time and budget.

Integrated information systems has the power to make it possible by managing and visualizing the information when and where required. The first step of training and development is training need assessment. With the help of HRIS (Human Resource Information System), the needs are readymade available there on the system based on the performance of the learner which is being recorded in the systems from the time he has made his first hello. This need assessment is based on matching the performance of learner with the ideal performance and traits, and is done by software based on rules in algorithm. In the computing environment training need assessment is real-time needs as per information system.

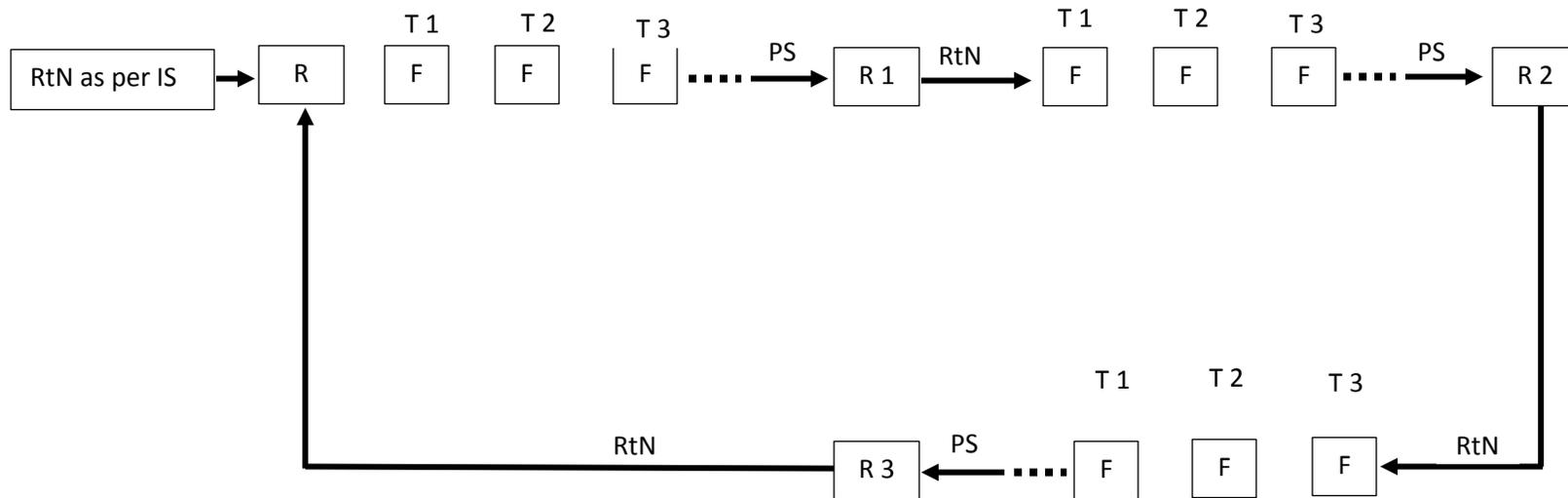
The program delivery, in lean learning and development is not a linear process based on trainer, trainee, time and place, rather it is all-time available with everyone at everyplace. With the help of handheld devices, the learner can log on as per convenience of learning and can pause, resume and give feedback as per convenience. This way learner is able to put in more interest and thus training grabs

more success without wastage of time, overburden and unevenness in the training. The sequence of training programs is not astringent in lean learning and development. The learner may choose the modules in any sequence that suits his learning preferences.

The evaluation and appraisal is not a time consuming activity as the performance is being evaluated all the time in real-time. Every job and service done by learner is either a deposit or withdrawal in his performance account. This score can be called performance score. The feedback regarding the quality of digital content and the learnings made by a learner is always a click away to be considered for next level of improvement.

The performance score and online availability of latest digital content supported by social media provides an efficient follow-up method, eliminating huge wastage and other limitations involved with conventional learning and development.

Figure 2 shows information age learning and development. All the factors F 1 to F 6 are eliminated that plays critically in removing wastage, and removing unnecessary burden and unevenness in knowledge transfer. The training programs T 1, T 2, T 3...Tn are not bound to be learnt sequentially, they are modular and can be taken up by the learner based on his skill and aptitude. Here follow-ups are succeeded by the performance score, which is real-time and tells all the story about retention of learnings on the job. Figure 2 shows the lean structure of learning and development which will turn out to be an efficient investment saving much cost, time, resources, productive time, paraphernalia, and motivation.



RtN: Real-time needs

IS: Information system

R 1: One period old learner

R 2: Two period old learner

R 3: Three period old learning

F: Digital Content

PS: Performance score

**Figure 2: Lean Learning and Development for Level 1 Training**

## **5. Conclusion**

Every era, downsized the previous and took the center-stage with its innovations of doing the things more efficiently as compared to the previous one. So is true with information age. Organizations spend large sum of money on training and education, anything that can accelerate or boost learning will save both time and money. Computer based information systems, omnipresent digital multimedia programs will change the scenario by shedding the burden, wastage, unevenness of the training and development process.

Over the next ten years, the training and development practices will not just change but will transform. The handheld devices like phones and tablets with internet and multimedia are going to play a pivotal role in this transformation. They will provide learners with unmatched connectivity and capability by getting exponentially smarter every year. A learner would be able to access a super computer on the cloud and run advanced simulation program.

This research in future will move towards finding some critical hypothesis and test them to support the explorations made.

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