

Review Article

EXPLORING THE ROLE OF TRAINING AND DEVELOPMENT IN CREATING INNOVATIVE WORK BEHAVIORS AND ACCOMPLISHING NON-ROUTINE COGNITIVE JOBS FOR ORGANIZATIONAL EFFECTIVENESS

M. Jyothi Sheeba¹, Prabu B Christopher²

¹Research Scholar, VIT Business School, Vellore Institute of Technology, Vellore, Tamil Nadu, India.

²Assistant Professor (Senior), VIT Business School, Vellore Institute of Technology, Vellore, Tamil Nadu, India.

Received: 25.12.2019

Revised: 13.01.2020

Accepted: 17.02.2020

Abstract

Innovation is the buzz word in today's organizational context. If the employees' thoughts and actions are creative and innovative then there comes innovation. The need for innovation arises when one tries to carry out the non-routine cognitive jobs. Learning & development is vital among the various HRM practices which helps employees to keep them update with the requisite knowledge, skills and attitudes (KSAs) necessary for innovation. It is necessary for the organizations to focus on eliciting innovative behaviors among its employees to make innovation possible. Non-routine cognitive jobs help employees to be innovative and to understand the importance of being innovative and to learn the skills that are prerequisite for innovative behavior. This conceptual paper tries to explore how non-routine cognitive jobs are done effectively through innovative work behavior.

Keywords: Innovative Work Behavior, Innovative Behavioral Skills, Learning & Development, Non-Routine Manual and Cognitive Jobs, Routine Manual And Cognitive Jobs.

© 2019 by Advance Scientific Research. This is an open-access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>) DOI: <http://dx.doi.org/10.31838/jcr.07.04.49>

INTRODUCTION

Among the various disciplines of management, Human Resource Management (HRM) plays a major role in the effectiveness of any organisation. Human Resource Management is the process which starts with the Recruitment and ends with Employee Retirement. There are many functions which are done by HRM department viz, Recruitment, Selection, Employees Induction, providing orientation, Imparting Training and Development, Performance Appraisal, Management of Compensation and benefits, Employee Motivation, maintaining good Human relations and their trade unions, ensuring employees safety, welfare and healthy measures in compliance with labour laws. Among the aforesaid functions done by HRM department, providing Training and Development to the Employees is one of the key functions of HRM. Training & Development (T&D) plays a vital role in enhancing employees' performance and increases productivity thereby results in organizational effectiveness. Organizations needs to consider the cost, time and effort involved in T&D activities as an investment rather than cost.

In the contemporary scenario organizations would like to showcase themselves in the market, they like to be different and unique from its competitors and to entice the customers with new products and services as a result the organization will have an advantage over its competitors. Innovation is the concept which makes any organisation to stand apart from the group. Innovation helps employees to upsurge their productivity through creating and implementing innovative processes and differentiates the organization through innovative product and services. Training and development is one of the significant elements which help in making innovation and to create innovative behavior in the workplace.

REVIEW OF LITERATURE

Training and Development (Acquisition of knowledge and skills)

Every task which is done by people needs skills and up-to-date know-how to perform the task effectively and efficiently. When the tasks and jobs become more complex and complicated there is a need for training and development. Organizations need to

provide T&D to the employees in order to survive. Training is a process which helps in developing the Knowledge and the Skill set of the employees in order to advance and alter their performance in the workplace. Training provides the awareness on the basic Information required to do a particular job, Knowledge to improve the performance on the job and Skills to demonstrate the abilities of the employee. Training is considered to be effective only when it addresses the knowledge/skill gap, prepares the employees for the future with new set of skills.

Steps to build up Effective T-Programs:

A firm increases its effectiveness and its performance with the firm's skilled workforce. So companies focus and invest on effective T&D programs for organizational effectiveness (M Mayfield 2011). The money spent on T&D activities is considered as investment only when T&D fulfills the purpose -improved performance of the workforce- which it was intended (ML Hall, S Nania, 1997). In order training programs to be effective, T&D should be designed and developed effectively. Managers struggle in designing such effective programs. The effectiveness of T&D depends on designing and delivery of the training activities effectively and also on the methods of T&D (RAG Khan et al, 2011). Trainings to be effective first T&D department has to know why training is needed what kind of training and how it should be delivered to the audience. Only then the trainings can be effective. The first step to make the training program so effective is to identify and analyze the need of the training i.e., training need assessment (TNA). The need can be arises at three levels a) at organization level, based on the strategic planning, needs of the business and goals and objectives of the organization, b) at the individual level, based on the performance level of the employee, the necessary skills and up gradation of knowledge, c) at the operational level, the work or the task that is going to be assigned to the employees. The need can be identified through the performance appraisal, knowledge gaps, employee development needs, requirements of the manager and the business. Any training program which is readymade cannot be used for all types of employee or organizational needs. It should

be offered based on the needs (A Priya & N Panchanatham, 2011). Training is the important ingredient for the employee productivity and competence. One of the main responsibilities of an organization is to determine the real need for the training (can the problem be addressed through training or not). Assessment of training need is the essential and initial step in the process of conducting and providing the appropriate training programs. The methods to analyze or assess the need of the training in an organisation are: Performance appraisal, Business Goal/Needs, Self-Assessment and personal regards, Questionnaires survey, Competency matrix, Client / Customer Satisfaction Index, Client / Project requirement, Employee Rate and Gap Analysis, Personal Interviews, Direct Observation, Peer Feedback, Work Sample, Floor work, Dash Board and error chart, 360 degree Appraisal feedback, Knowledge and skill required by the team (N Singh, RC Dangwal, 2017). TNA has many benefits to the organization: a) identifies and addresses the acute need for the training b) helps employees to better understand their job role and duties and responsibilities c) acts as a tool for employee or management development d) creates conducive learning climate (H Pennington, 2011). The good the training need assessment the great the training program. The training efforts go in vain when the needs assessment is done vainly. TNA leads to develop accurate training program which ultimately leads to improved performance. The reasons for needs assessment are a) identification of problem areas in the organization b) winning the support of management c) data to measure the training effectiveness d) cost-benefit analysis of the training program. TNA is useful in accomplishing the organizational goals and bridging the gap between the existing skills and the required skills of the employee for high performance (J Brown, 2002). The need of the training is to update the employees with latest technological developments. Learning is said to be a never ending process; though the employees are good enough to perform the task still they need a refresher training (or retraining) and to apprise themselves with the newest trends (GV Narasimhan & CS Ramanarayanan, 2014). The need for the change can emerge out from the length of the service of the employees in the organization (T Skica & J Rodzinka, 2012). Once the need for training is known, performance gaps are identified then it should be addressed appropriately (G Welty, 2007) and create the program strategies, method of instructions for effective and efficient training programs (JW Hansen, 2007) i.e., designing the program which suits the current trend. Designing has mainly three components they are: fitting the learning outcomes to the curriculum, outlining the learning outcomes, and getting the approval from the management (Gordon Welty, 2007). This makes practical decisions which include strategy, delivery methods, structure, duration, assessment, and feedback (Eoghan Quigley, 2019). There are different delivery methods or training methods which is used widely in many organizations but RC Clark (2019) suggests that there is no one best method which makes the training effective. The learning takes place based on mixed or blended delivery methods. Based upon the need and situation different training methods are used. Going with fully instructor led training or fully computer based training will not be effective. Learning takes place when the trainees have psychological attachment in the training activities (RC Clark, 2019). Enterprises that consider training as a strategy for competitive advantage don't think that distance learning method as an effective method to provide training but effective only when it integrates with other on-the-job training methods (Smith, Peter J, 2002). G Kaupins (1997) concluded based on research survey on different training delivery methods like live cases, internship, and self-study programs, videoconferencing, video tapes, computer conferencing, one-to-one instructions etc., nearly among 20 training methods, live case studies and internships been rated high by 200 corporate trainers. When the training is conducted with suitable methods then the T&D programs will be

effective and employee performance improvement can be attainable. The effectiveness of the training can be measured based upon some of the elements like objective, cost, time, location, frequency of the training, competencies of the Trainer, suitable mode and methods of the training program, its content and delivery style (A Sal, M Raja 2016). The demand and the requirements cause the changes in formal and informal training. The changing involves change in the technology and production process, knowledge and information leads to the necessity of trainings in organization and employees' intention and motivation towards learning, (RR Ferreira, G Abbad, 2013). As Steve Jobs quotes that design is not how it looks but how it works. Designing a training program should focus on how it works in creating knowledge and ability among the employees. Making the program effectively it requires the training materials and the content of the course. The criteria for establishing the training content and material are: organizational performance problem for which training is the solution, specification of organizational goals, work processes, and current performance levels, details of the knowledge and the expertise required from the SMEs, Learning objectives and learning outcomes, strategy and the curriculum of the training (RL Dobbs, 2006). Training materials include Flip charts and markers, Handouts for trainees, Job aids, Placards, PowerPoint Slides, Script for trainers, White board and markers (G Welty, 2008). When a design is established then it goes for execution to know whether it works out in the desired way or not. The execution is the stage where the training materials and the assessment materials are introduced, it is of two types: Pilot implementation and Final implementation which is followed by formative and summative evaluation respectively (G Welty, 2008). When the content is tested completely then it is made available to the learners (Eoghan Quigley, 2019). When the design is executed for testing then it should be controlled and evaluated to know the deviations and to take the corrective actions. Training effectiveness can be evaluated by Kirkpatrick four levels Model. The levels are: Level-1: Reaction- the extent of participants' favorable reaction; Level-2: Learning- the extent of acquisition of KSAs based on the participation of the employees in the training or learning activities; Level-3: Behavior- the degree of application of KSAs on the job; Level-4: Result- the extent of expected outcomes come about after participating in the learning process (D Kirkpatrick, JD Kirpatrick, 2011). The evaluation, last phase which follows implementation (execution), is of two types: Formative evaluation and summative evaluation. After the pilot implementation, the results which got through the evaluation are fed back and facilities are made to fine-tuning of the training activities, which is called as formative evaluation. After this it goes to design and development stage for further alteration. Finally final evaluation is done after the final implementation of tuned content and materials (G Welty, 2008).

Transfer of Training (Application of Knowledge and skills):

Merely attending training programs will not make employees proficient unless or until it (the KSAs) is put into action. Whatever the employees learn (knowledge, skills, and change in behavior) in the trainings it should be applied on the job. There are many factors which influence the training transfer, they are: workplace design (VW Kupritz, 2002), correspondence between the training content and the workplace activities, motivation towards learning, favorable environment for transfer (AI Renta-Davids, JM Jiménez-González, 2014) & training relevance to the participants' needs (FM Nafukho et al, 2017). The effectiveness of the training and the performance of the employees depend on the level of participation of the employees in the T&D programs (AA Ramli et al, 2018). Therefore training effectiveness is not only measured through proper training methods and materials but the transfer of training plays an imperative role. Acquisition of knowledge and skills from training activities and Application of knowledge and skills on the job leads to training effectiveness and employees' efficiency.

Training Outcomes

Training also has an effect on the attitudes of employees which in turn makes them to perform well with proficiency. T&D activities help in managing the conflicts between employer and employee; between employee and employee. With the effective training, application (transfer) of the acquired technical and behavioral skills enhances job performance which leads to employee job satisfaction and organizational involvement, (Debra L. Truitt, 2011). Developing only KSAs may not make the employee

committed towards his/her work. T&D has to create Innovative Behaviors in the employees (AA Ramli et.al, 2018). The research studies are apparent that training and development elicits various attributes of employees viz. Innovative work behavior, affective commitment, work proficiency, managing conflicts which ultimately leads to employees' improved performance and productivity. The list of employee attributes which is attained through Training activities are shown in Fig. 1.

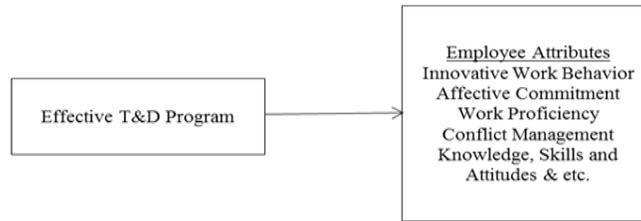


Fig. 1: Employee attributes that are elicited through effective T&D

Conceptual Framework

Innovation and Innovative Work Behavior (IWB):

By considering the above attributes that are elicited through T&D, this study illustrates the importance of innovative work behaviors among employees. IWB is defined as the behaviors which are connected with generation and implementation of novel and creative ideas. Innovation is the buzz word in today's business; the organization has to either "Explore or Expire". Training and Development helps employees and organization to have innovative work behavior (IWB). But companies neglects to provide proper T&D where it focuses only on tools and processes, which is insufficient to create innovativeness. Innovative oriented culture can be created through T&D (TL Michaelis & SK Markham, 2017). As suggested by AA Ramli et.al, (2018) T&D has to create innovative work behaviors in the employees. When the organizational (team) structure is organic and employees are goal oriented has a positive impact on IWB (Fu Yang et.al, 2015). T&D is one of the best practices to develop IWB in the employees (A Bos-Nehles et.al, 2017). The innovative behavior of employees in an organization is affected by the shortage of technologically skilled employees (N Sharma, 2017), Leadership styles (mainly transformational leadership) and knowledge sharing (SB Choi, et.al, 2015, C Feng et.al, 2016). The determinants of innovative behavior are workplace happiness and coworker support (S Bani-Melhem, et.al, 2018), Motivation (intrinsic and extrinsic) (AH Jaaffar, et.al, 2018), Proactive personality (B Yildiz, et.al, 2017), leadership support and conducive environment for innovation, managerial role expectations, problem solving style, work group relations (SG Scott, & RA Bruce, 1994). Innovative work behavior can be influenced by innovation training, effective learning opportunities and redesigned job roles (BE Watley, 2016). Innovation is the one criterion which helps the organization to be different in the market and to have a competitive advantage, meet the consumers' expectations, bear the competitive pressures. Creativity in engineering training helps organizations to create innovativeness in the employees ultimately leads to innovative organizations (Mousavifard, & A Ayoubi et.al 2018). Training plays an imperative role in creativity and innovation. The organization has to make efforts to design and develop right training interventions (KK Sarri, et.al, 2010). M Sheehan et.al, (2014) suggests that developing human resources, through T&D, influence an organization's innovation by having a positive impact on employee engagement, leadership, motivation to learn, promoting learning culture and developing social capital. The training intervention related mainly to soft skills (behavioral and professional skill) and technical skills have a positive impact on Innovation (DV Goyal, 2016).

In order to elicit IWB among employees, effective training programs should focus on a wide range of activities which unleashes the dormant creative and innovative adroitness. By doing so it allows organization to have a competitive advantage and to perform expeditiously. As mentioned above training requirement research is done at three levels; at the task or operational level, the need analysis determines what kind of KSAs is required for the employees to do ones job effectively and efficiently. While doing the job effectively, employees can be trained to do their job innovatively. The tasks can be divided into Routine (manual and cognitive) and Non-routine (manual and cognitive) tasks. This conceptual study tries to explore the importance of innovative behavior in accomplishing the Non-routine cognitive jobs. Non-routine cognitive jobs can be further divided into *Analytical* and *Interactive* (or interpersonal); Analytical jobs include data or information analysis, creative thinking, interpretation of information for others, Interactive jobs includes Relationship management (establishing and maintaining relations), Leadership (guiding, directing and motivating subordinates, coaching and developing others) (Acemoglu and Autor, 2011). The skills required for carrying out the non-routine cognitive jobs are Abstract reasoning, Systems thinking, Collaboration, and Ability to experiment (https://vistamis1.fandom.com/wiki/The_4_Non-Routine_Skills).

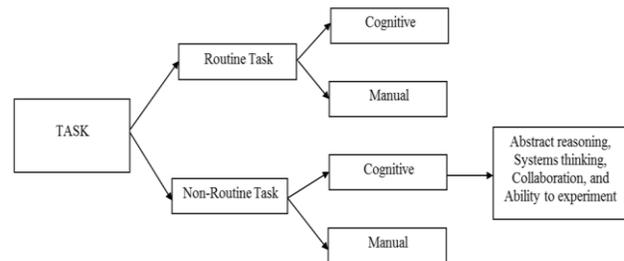


Fig. 2: Types of tasks

The skills which required for being innovative at workplace are Divergent thinking, curiosity, passionate, courageous, confident, inquisitive, creative, challenge, focused, emotional intelligence, commitment, learn from failures, good listener, leadership qualities, strive for excellence, pro-activity & persistence, prudence, and social capital. Employees having innovative work behavior leads to accomplishing the non-routine cognitive tasks effectively (Fig.3).

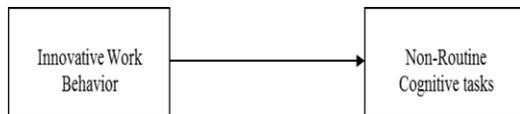


Fig. 3: Non-routine cognitive jobs done by the people who behave innovatively at work

Though there are certain jobs which are subject to replaced by machines, non-routine cognitive jobs are mostly done by the

people. When employees are trained and developed effectively; when there is culture for learning it is possible for executing non-routine cognitive jobs effectively. Employee Innovative behavior is very essential for organizations to be the leader in the market. Based on the above literature review the model is conceptualized as below.

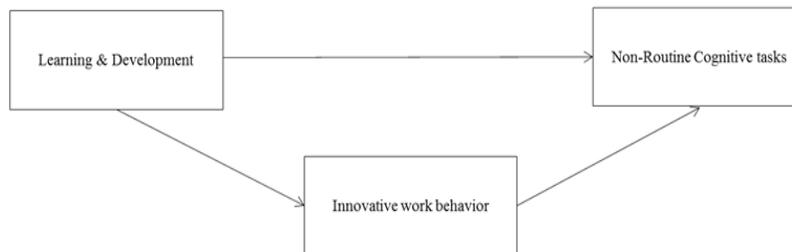


Fig. 4: Role of L&D in accomplishing Non-routine tasks by creating IWB among employees

CONCLUSION

It is evident that Training & Development plays a vital role in improving the performance of the employees through inculcating the innovative work behaviors which helps in accomplishing non-routine cognitive jobs effectively and innovatively.

REFERENCES

- Anwar, G., & Shukur, I. (2015). The Impact of Training and Development on Job Satisfaction: A Case Study of Private Banks in Erbil. *International Journal of Social Sciences & Educational Studies*, 2(1), 65-72.
- Bani-Melhem, S., Zeffane, R., & Albaity, M. (2018) Determinants of employees' innovative behavior *International Journal of Contemporary Hospitality Management*
- Bos-Nehles, A., Renkema, M., & Janssen, M. (2017) HRM and innovative work behaviour: A systematic literature review *Personnel review*.
- Brown, J. (2002). Training needs assessment: A must for developing an effective training program. *Public personnel management*, 31(4), 569-578.
- Choi, S.B., Kim, K., Ullah, S.E., & Kang, S.W. (2016) How transformational leadership facilitates innovative behavior of Korean workers. *Personnel Review*.
- Clark, R.C. (2019). Evidence-based training methods: A guide for training professionals. *American Society for Training and Development*
- Dobbs, R.L. (2006). Development phase of systematic training: New technology lends assistance. *Advances in Developing Human Resources*, 8(4), 500-513
- Feng, C., Huang, X., & Zhang, L. (2016). A multilevel study of transformational leadership, dual organizational change and innovative behavior in groups *Journal of Organizational Change Management*
- Ferreira, R.R., & Abbad, G. (2013) Training needs assessment: where we are and where we should go. *BAR-Brazilian Administration Review*, 10(1), 77-99.
- Goyal, D.V. (2016) An Analytical Study of Training Intervention and Their Importance For Indian IT Personnel. *International Journal of Management*, 7(5)
- Hall, M.L., & Nania, S. (1997). Training design and evaluation: An example from a satellite based distance learning program. *Public Administration Quarterly*, 370-385.
- Hansen, J.W. (2006). Training design: Scenarios of the future. *Advances in Developing Human Resources*, 8(4), 492-499
- Jaaffar, A.H., Ganesan, Y., & Isa, A. (2018). Employees' Motivation to Undertake Entrepreneurship and Innovative Behavior: UNITEN KSHAS. *Global Business & Management Research*, 10(3)
- Kaupins, G. (1997). Trainer opinions of popular corporate training methods *Journal of Education for Business*, 73(1), 5-8
- Khan, R.A.G., Khan, F.A., & Khan, M.A. (2011). Impact of training and development on organizational performance *Global journal of management and business research*, 11(7)
- Kirkpatrick, D., & Kirkpatrick, J. D. (2011) *The Kirkpatrick four levels Kirkpatrick Partners 2013*
- Kupritz, V.W. (2002). The relative impact of workplace design on training transfer *Human resource development quarterly*, 13(4), 427-447.
- Mayfield, M. (2011) Creating training and development programs: using the ADDIE method *Development and Learning in Organizations: An International Journal*.
- Michaelis, T.L., & Markham, S.K. (2017) Innovation Training: Making Innovation a Core Competency A study of large companies shows that, although managers see human capital as central to innovation success, most aren't providing innovation training. *Research-Technology Management*, 60(2), 36-42.
- Mousavifard, F., & Ayoubi, A. (2018). Innovation and Training in Engineering Management: An Essentiality, a Necessity or a Choice? *International Journal of Information, Business and Management*, 10(1), 230-244.
- Nafukho, F.M., Alfred, M., Chakraborty, M., Johnson, M., & Cherrstrom, C.A. (2017) Predicting workplace transfer of learning *European Journal of training and Development*
- Narasimhan, G.V., & Ramanarayanan, C.S. (2014) Analysis of Training Needs Assessment and Implementation-A Comparative Study of Public and Private Sector Banks *Indian Journal of Commerce and Management Studies*, 5(3), 71
- Pennington, H. (2011). Using a training needs analysis framework in career development *Nursing Management*, 18(2)
- Priya, A., & Panchanatham, N. (2011) Creativity in Perception of Employees towards Need for Training With

- Regard To Aviation Industries. *The Journal of Commerce*, 3(1), 1
24. Rama Devi, V., & Phanindra, R. (2014) Employees' Perception of Effectiveness of Training and Development in Private Sector Banks
 25. Ramli, A.A., Anuar, F.L.M.K., Rosli, I., & Jamalidan, S. A. (2018). The Relationship of Design, Implementation, Monitoring and Evaluation in Training and Development towards Employee Performance in Food and Beverage Industry. *Global Business & Management Research*, 10(3)
 26. Renta-Davids, A.L., Jiménez-González, J.M., Fandos-Garrido, M., & González-Soto, Á. P. (2014) Transfer of learning. *European Journal of Training and Development*.
 27. Sadler-Smith, E., Down, S., & Lean, J. (2000). "Modern" learning methods: rhetoric and reality. *Personnel Review*, 29(4), 474-490.
 28. Sal, A., & Raja, M. (2016). The impact of training and development on employees' performance and productivity. *International Journal of Management Sciences and Business Research*, 5(7)
 29. Sarri, K.K., Bakouros, I.L., & Petridou, E. (2010). Entrepreneur training for creativity and innovation. *Journal of European Industrial Training*.
 30. Scott, S.G., & Bruce, R.A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of management journal*, 37(3), 580-607.
 31. Sharma, N. (2017). Innovative Behavior of Indian SMEs: An Empirical Study. *The IUP Journal of Knowledge Management*, 15(1), 30-43.
 32. Shah P, Bhalodia D, Shelat P. "Nanoemulsion: A Pharmaceutical Review." *Systematic Reviews in Pharmacy* 1.1 (2010), 24-32. Print. doi:10.4103/0975-8453.59509
 33. Sheehan, M., Garavan, T.N., & Carbery, R. (2014). Innovation and human resource development (HRD). *European Journal of Training and Development*.
 34. Singh, N., & Dangwal, R.C. (2017). Training Need Analysis Process of Selected Manufacturing Firms in Uttarakhand State: An Empirical Study. *Splint International Journal of Professionals*, 4(5), 54-65.
 35. Skica, T., & Rodzinka, J. (2012). The analysis of training needs in public institutions operating in health care sector in the podkarpacie province. *e-Finanse: Financial Internet Quarterly*, 8(1), 85-101.
 36. Susomrith, P., Coetzer, A., & Ampofo, E. (2019). Training and development in small professional services firms. *European Journal of Training and Development*, 43(5/6), 497-515.
 37. Tahir, N., Yousafzai, I. K., Jan, S., & Hashim, M. (2014). The Impact of Training and Development on Employees Performance and Productivity A case study of United Bank Limited Peshawar City, KPK, Pakistan. *International Journal of Academic Research in Business and Social Sciences*, 4(4), 86.
 38. Taufek, F.H.M., & Mustafa, M. (2018). The Effect of Training and Development towards Employee Performance: A Case Study in Proton Tanjung Malim. *Global Business & Management Research*, 10(3).
 39. Terera, S.R., & Ngirande, H. (2014). The impact of training on employee job satisfaction and retention among administrative staff members: A case of a selected tertiary institution. *Journal of social sciences*, 39(1), 43-50.
 40. Truitt, D.L. (2011). The effect of training and development on employee attitude as it relates to training and work proficiency. *Sage Open*, 1(3), 2158244011433338.
 41. Watley, B.E. (2016). Effects of Innovation Training on Innovative Work Behaviors (Doctoral dissertation, Regent University).
 42. Welty, G. (2007). Strategy and tactics of task analysis. *Journal of GXP Compliance*, 11(3), 26-35.
 43. Welty, G. (2007). The 'design' phase of the ADDIE model. *Journal of GXP Compliance*, 11(4), 40-53.
 44. Welty, G. (2008). "Formative Evaluation in the ADDIE Model," *Journal of GXP Compliance*, Volume 12, Number 4, Summer 2008, pp. 66-73.
 45. Yildiz, B., Uzun, S., & Coşkun, S.S. (2017). Drivers of innovative behaviors: The moderator roles of perceived organizational support and psychological empowerment. *International Journal of Organizational Leadership*, 6, 341-360.
 46. Zhou, P., Wang, J. Genetic testing for channelopathies, more than ten years progress and remaining challenges(2010) *Journal of Cardiovascular Disease Research*, 1 (2), pp. 47-49. DOI: 10.4103/0975-3583.64429