# ACCESS TO EDUCATION IN INDIA: BREAKING WALLS THROUGH OER

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## ABSTRACT

'Digital India' flagship program of government of India aims to transform the country into digitally empowered society & knowledge economy. As a global commitment of empowering society, Education for All (EFA) is to provide quality basic education for children, youth and adults of all socio-economic background. Information and communication technologies (ICTs) provide the path to ensure easy access of knowledge and information with anytime anywhere flexibility to fulfil educational commitments. With the emergence of the concept of Open Educational Resources (OER), these goals seem to be accomplished effectively. According to Hewlett foundation, OER include free access of all textual, audio, video or multimedia resources, tools or techniques which are in public domain or released under intellectual property license. There are many best practices of using OER platforms for accessibility with equity, but India is in initial stage of disseminating knowledge through OER.

Thus, this paper discusses about the potential of OER in widening access and equity in education to ensure quality education for all. It explores various ways to open the door of basic education to different socially disadvantaged groups including specially-abled children, socio-economic weaker section, and specially the learners who are excluded from formal education due to many defined or undefined reasons. The paper focuses on the policies, consequent current status and global and national best practices of OERs platforms with their future possibilities. Overall, this paper provides an outlook of collections of various OER platforms specially in India such as ePathshala, Digital library of India, NROER, NPTEL etc. to ensure easy access of quality knowledge for personalized teaching and learning.

**Keywords:** Open Educational Resources, Digital India, open access, dissemination of resources, quality education

## INTRODUCTION

*Basic learning needs ...comprise both essential learning tools...and the basic learning content ...required by human beings to be able to survive, to develop their full capacities, to live and work in dignity, to participate fully in development, to improve the quality of their lives, to*

*make informed decisions, and to continue learning* (United Nations, 1990 - World Declaration on Education for All, Article 1, Paragraph 1)

To continue learning, there must be more deliverable platforms to access information as well as the knowledge appropriately. When we explore the developmental perspective, Education ensures the economic growth, creates employment opportunities, and fosters civic participation and personal development. Article 26 of The Universal Declaration of Human Rights reflect Education for All (EFA) as a fundamental right adopted in 1948 by the General Assembly of the United Nations (UNESCO, 2010). This UN declaration support one of the fundamental rights explained in Article 21 (A) in the constitution of India which regards right to education which should be provided free and compulsory till elementary schooling.

*"Ensure Equitable, Quality Education and Lifelong Learning for All by 2030"* is the major theme for the global thematic consultation on education in the post-2015 development agenda.  Most of the goals as discussed in Education for All by UNESCO under achieved to some level, which can be referred from UNESCO (2013) in detail. Some of the under-achievement data are presented in the light of UNESCO (2013) report:

- 57 million children from conflict affected areas were out of school in 2011,

- Around two-thirds of the girls from Arab States and sub-Saharan Africa were out of school,

- Limited progress in marginalized areas due to insufficient attention,

- 774 million adults including two-thirds of women were illiterate till 2011,

- Around 160 million adults in OECD countries were estimated to have poor literacy skills,

- Only 60% of countries had achieved gender parity at the primary level and 38% at the secondary level by 2011.

Considering the step-by-step progress in EFA goals, some of them are more difficult to measure, which needs clearer targets and outcome indicators. For the purpose of setting more measurable goals and outcomes, several inter-linked efforts and processes by stakeholders have been launched for shaping the post-2015 development agenda towards EFA. Some of the post-2015 development agenda include:



**Figure 1: Global Targets of Post-2015 Development Agenda**

The knowledge is the only treasure which cannot be reduced by sharing. It grows more intensively while sharing with more people and in more ways. In simple terms, Open Educational Resources (OER) are open and free access for using, creating and sharing information and knowledge. In 2012, the Paris OER Declaration was adopted showcasing the need to involve governments worldwide to use open licenses for publicly funded educational materials (Commonwealth of Learning Report, 2017). With the emergence of the global targets of post-2015 agenda, we need to search a long-lasting approach to fulfil these with concrete outcomes and impact. OER can be effectively used to accomplish these commitments with great extent. OER can be revealed as the process of strengthening the democracy by providing free and open access of education. OER are teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge (Hewlett Foundation, 2008). According to the UNESCO definition, OER are: "the open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes" (Hylén, 2012). Paris Declaration in 2012 on OER recommended to endorse the awareness and use of OER by developing basic infrastructure including electricity, mobile devices, broadband etc. to bridge the gap of haves and haves not. It also urged to promote OER in local languages and contextualize it.

After understanding the global targets of post-2015 development agenda and OER, 'open and free access' are the common words occurred in the basic conceptual understanding. Hence, OER can be an open path to cherish the way of fulfilling the global educational goals. In India, there are many people who are not covered in formal education system due to many social, economic, religious, and political reasons. In Indian education system, there is a wide gender disparity, challenges of children with special needs and other socio-economic weaker sections, which are the challenges faced while accomplishing EFA goals in India.

The framework for action on Sustainable Development Goal 4 i.e. 'Ensure inclusive and quality education for all and promote lifelong learning' emphasize on expanding access, inclusion, equity, and gender equality for attaining the goal of quality education and lifelong learning (UNESCO, 2019). On the basis of global policy framework and various consultations, practices of OER have been adopted as discussed in following section.

## PRACTICES OF OER IN INDIA

The potential of OER is based on its openness, accessibility and cost-effectiveness. There are many open textbooks project which encourage lifelong and sustainable teaching and learning. Some of the pioneers of open textbooks are the Global Text Project, WikiEducator, Wikibooks, Connexions etc., which are the best example for providing quality education to all. OER projects have the possibility to reduce costs by creating, sharing and organizing content for electronically and in print form with the collaborative and open approach. Thus, OER can potentially drive down production and delivery costs by shortening the time needed to create new curriculum, learning materials and textbooks for online, classroom and blended learning programs (Geith & Vignare, 2008).

The other promising approach of OER is creating and sharing resources with cooperation and collaboration. Add to that, the personalization of learning resources, as there are unlimited materials available for users, so they can select the textual, visual or multimedia stuff according to their learning abilities and interest. It can be helpful for teachers also to select the resources as per their own teaching skills. In this way, OER as a way of participating in the creation of new knowledge fully enables availability, accessibility, acceptability and adaptability (Geith & Vignare, 2008). On this line, many projects and initiatives were attempted globally to provide OER platform for using, creating and disseminating filtered

**resources through content experts and stakeholders. A glance of these projects and initiatives are presented in the following image by Tuomi (2006).**
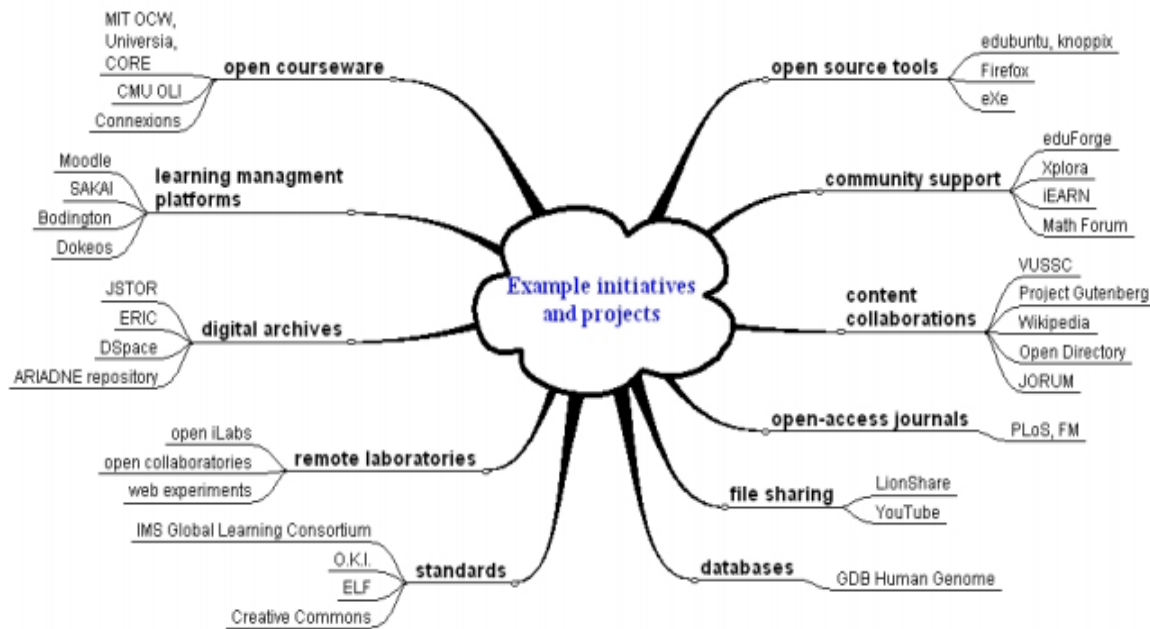


**Figures 2: Global Initiatives and Projects (Source: Tuomi, 2006)**

**In India, Institutions and administration are making significant efforts to provide platforms of OER. There are many projects which are on ground. One of the pioneer in making India as a knowledge society is National Knowledge Network (NKN) which seeks to develop appropriate institutional frameworks for India to Strengthen the education system, promote domestic research and innovation, facilitate knowledge application in sectors like health, agriculture, and industry, to leverage information and communication technologies to enhance governance and improve connectivity, and finally to devise mechanisms for exchange and interaction between knowledge systems in the global arena (NKN, 2014). With the basic theme of NKN, many projects and initiatives have been launched in India to cover the literacy gap, gender disparity, drop-out rates, equity and equality and above all the purposive quality education. Some of the initiatives and projects of OER in India are presented below:**

**1.1.1  Consortium for Educational Communication (CEC), UGC:  UGC regulated CEC is a forum for the active involvement of academic and other scholars in the creation of appropriate educational programme. In addition, it enhanced the TV platform as a learning network for Studying, promoting & experimenting that will increase the reach and effectiveness of educational communication. In addition, CEC YouTube channel is also accessible for 24/7 access. The CEC resources are available at http://cec.nic.in/Pages/Home.aspx**

**1.1.2  Digital Library of India: Realizing the mission to preserve Indian scientific and artistic work and make them available globally in digital form for research, study, appreciation and future generation, Govt. of India initiated Digital Library of India in 2000 assuring digital collection of freely accessible rare books collected from various libraries in India. http://www.dli.ernet.in/**

**1.1.3  E-Basta portal: E-basta project has created a framework to make school books accessible in digital form to read anytime anywhere for free. It is already operational**

and also provide easy open access to interactive and dynamic content augmented with text, charts, graphics, videos and auxiliary resource at https://ebasta.in/

1.1.4   **E-Pathshala:** E-pathshala committed to transforming learning through technology is launched to provide a ripe platform for children of all learning levels thereby making provision for those put to disadvantage because of social, cultural, economic, geographical, linguistic and gender anomalies. It's a platform to provide all-inclusive education to experience the learning and transform and grow into empowered individuals, available at http://www.epathshala.co.in/

1.1.5   **E-PG-Pathshala:** In extension to e-Pathshala, Ministry of HRD, GOI under its National Mission on Education through ICT (NME-ICT), has assigned work to the UGC for development of e-content in 71 subjects at postgraduate level, a platform named e-PG-Pathshala. The high quality interactive content that would be curriculum based in different subjects across all disciplines of social sciences, arts, fine arts & humanities, natural & mathematical sciences, linguistics and languages is being developed under this initiative named e-PG Pathshala - http://epgp.inflibnet.ac.in/

1.1.6   **IUC-TEFED:** Inter-University Consortium for Technology-Enabled Flexible Education and Development (IUC-TEFED) at IGNOU was established in 2004 as an education, training, development, R&D and service center on ICT-enabled interactive multimedia and online education for the distance education system in the country.

1.1.7   **National Institute of Open Schooling' OER:** The National Institute of Open Schooling (NIOS) initiated its OER to provide a platform to millions of learners who are interested in development of various vocational skills at Secondary and Sr. Secondary levels accessible at http://oer.nios.ac.in/

1.1.8   **National Programme on Technology Enhanced Learning (NPTEL):** The NPTEL is a platform for quality teaching and learning by IITs' and IISc' experts for engineering education. Currently, almost 140 courses are there in various stages of preparation and distribution through online. The best faculty members are personally involved in the making of their respective courses in the electronic form available at http://nptel.ac.in/.

1.1.9   **National Repository of Open Educational Resources (NROER):** NROER is an initiative of MHRD which is a collaborative effort to develop a repository of multimedia resources for teaching and learning purposes available at http://nroer.gov.in/welcome

1.1.10  **Project OSCAR:** It is a project of IIT Bombay to make available a large repository of web-based animations with interactive features for teaching various concepts and topics. It is developed for classroom learning as well as distance and independent self-learning. It can be accessed at: http://www.bio.iitb.ac.in/~sanjeeva/joomla/index.php?option=com_content&view=article&id=102&Itemid=110

1.1.11  **Study Webs of Active-Learning for Young Aspiring Minds (Swayam) online portal:** Human Resource Development ministry has launched the Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM), a Web portal where Massive Open Online Courses (MOOCs) specifically designed to benefit students from remote area, working professionals as well as college dropouts in all subjects. 'Verified Certificate' are also being offered to students after successfully completion of courses (Bharti, 2014).

1.1.12  **SWAYAM Prabha DTH TV Channels:** The SWAYAM Prabha, a MHRD initiative, have been launched in July 2017 with 32 DTH-TV channels devoted to telecast high-quality educational TV programmes 24/7. For transmission on these channels, GSAT-15 satellite is being utilised. It was decided that every day, new content for at least (4)

hours is to be telecast which would be repeated 5 more times in a day to make it 24/7 transmission. The flexibility and repetition of programmes allow the students and teachers to choose the time of their convenience for watching relevant and useful programmes for them. All 32 channels are uplinked from Bhaskaracharya Institute for Space Applications and Geo-Informatics (BISAG), Gandhinagar for transmission. However, the Information and Library Network (INFLIBNET) Centre maintains the web portal for SWAYAM Prabha. Besides, telecast of curriculum-based programmes, the channels are working on introducing innovative curriculum and pedagogy in their teaching process.

1.1.13 **The Birla Institute of Technology and Science (BITS) e-books library Initiative:** BITS eBooks Library offer users, an open and free access to over 20000 high quality books in Engineering, Management and Computer Science subjects just by providing BITS e-mail id at http://ebooks.bits-pilani.ac.in/

Above presented platforms and initiatives are only the snapshots of OER development in India. Many other resources are also available online or downloadable for free with 24/7 access, which focus on to impart all-inclusive education and accommodate disadvantaged sections in the mainstream to empower the individuals and society as well. Various institutional support and policy perspectives on technology enhanced teaching and learning promote the use, creation and sharing of educational resources and make them available free and open to all.

## CONCLUSION

Although stakeholders are working towards implementing technology effectively in education, we need to make sure that the resources which are open and free should be reached to the ground to cover the disadvantaged learners in mainstream. Apart from availability of OER and infrastructure, there are people who are not aware and even they don't want to be aware due to lack of motivation factors. In this case, people should be made aware and motivated to use, create and share OER through workshops and training programs. In addition, all students, teachers and other learners should be encouraged to use as well as create educational resources institutions.

Only knowledge is a kind of property which increases by sharing. So OER give a platform to create, share, use, reuse, reproduce, and recreate materials and resources for as small as a classroom group or as large as for an international open platform. Today, many journals, periodicals, research papers and other resources are openly accessible and available to the wide range of digitally advantaged people as presented various projects earlier. Education is open and free, it can't be bound with barriers - National or international. Therefore, OER are breaking shortly, and with time it will break the wall to go on the smooth path of education for all. Moreover, the educational resources that are open for reuse, rework and redistribution, the collective commons of knowledge can support all dimensions of the human rights for education.

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# CHALLENGES OF TRAINING AND DEVELOPMENT THROUGH E-LEARNING: A STUDY OF SELECTED POWER SECTOR COMPANIES

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**ABSTARACT**
Despite the fact that training being a crucial part for efficient operative functioning of employees, corporate e-learning programs often end up with disappointment. This paper deals with prospective challenges pertaining to training and development through e-learning. It also identifies the factors that hinder growth of e-leaning program in organizations. The findings are supported by an online survey on Power Sector International Corporations working in India.

**Keywords:** E-learning, training & development, corporate learning, e-learning challenges.

## INTRODUCTION

Till the end of previous century, training was not imparted on a computer, but usually given either in classroom situation or on the job by a qualified trainer. Due to technological advancement, organizations initiated computer based training and the field of e-learning has begun to take a shape. In early 1990s, many organizations used videotapes to impart training to their employees.

The initiative of delivering training on video was not found to be a perfect solution, hence a new form of training evolved, that is Computer based Training (CBT). CBT proved to be more effective but it was not able to measure employee performance on a central database and was not found to be easy to upgrade. As a result, e-learning emerged (Clark, 2002).

The term "e-learning" came into existence in the year 1999; the word was initially used in a CBT systems seminar. Other terms were also utilized to express an exact description such as "online learning" and "virtual learning". In 2000s, enterprises started adoption of e-learning to train their manpower. New entrants and experienced workers were given opportunity to advance their industry related to know how and to improve their skill level. It allowed individuals at home to access programs that enabled them to earn online degrees and to enrich themselves through extended knowledge.

E-learning is relevant for all types of training requirements e.g. refresher training; orientation for new entrants; information about new service requirement or product and to share emerging knowledge, technology or skill requirement (Harun, 2002). In order to respond quickly to persistently changing learning needs, e-learning emerged as the best and most viable option for corporations. Technology related breakthroughs and emerging skill needs

necessitated exploitation and management of new developments and escalated demand for e-learning solutions. There exists a variety of e-learning products and services available to meet majority of the organizational training needs.

## RATIONALE FOR E-LEARNING

Teaching and training in traditional senses are ways of delivering knowledge, just like a proverbial one-way street. E-learning ensures the possibility of better interaction and direct engagement offers effective ways for information sharing resulted into empowered employees with increased morale.

The rationale behind adoption of e-learning is justified because of the following reasons:
- There is no need to engage all employees for training at one time. They can choose their own convenient time, pace and place of learning which suits them.
- It is self-paced and if required, content can be recorded and provided as and when needed by people.
- No time limitations. It can be delivered in parts or all at once wholly as per the learner's requirements instead of the trainer's comfort.
- A variety of courses can be conducted and managed through suitable Learning Management Systems (LMS) by a small number of experienced training administrators. LMS can also maintain records of participation in number of courses, test scores, time taken for learning, etc. for each learner which may provide intelligent data to enhance employee's skills further.
- Measurement of learning is possible in terms of performance for each participant. This can be measured with the help of various ways like score tracking, progress tracking and time tracking. In established training methods this was not possible.

## REVIEW OF LITERATURE

This part deals with different perspectives under various studies undertaken so far on e-learning potential to impart training & development. Review of literature also aimed to note employee attitudes regarding e-learning. One study reveals that while 84 per cent of the companies consider e-learning as an efficient and cost-effective tool for organizational learning, only 27 per cent use it as an effective Training & Development (T&D) tool.

Naresh B, Dr. Bhanu Sree Reddy (2015), in their paper titled "Challenges and Opportunities of e-learning in Developed and Developing Countries - A Review" compares e-learning environment and its relative use in developing and developed countries. This paper identifies the problems faced by emerging economies. Developing countries face challenges like lack of infrastructure, non-availability of trained instructors, and lack of financial support by the management, government policies and passive attitude of prospective trainees. However, e-learning offers more opportunities since it has some inherent advantages. The things that are to be learned from developed countries are support from the government, proper adaptation of technology, awareness of benefits of e-learning along with users' readiness to learn its use. If the developing countries learn and adapt developed countries success path pertaining to e-learning implementation, there is a huge potential for the use of e-learning in these countries. They have a huge working population and wide gap exist between trainee and faculty ratio. In developed countries, government provides infrastructural and financial support to enable e-learning with clear action plans for future. They have uninterrupted electricity supply and internet access. Though developed countries are strong in infrastructure, the challenges faced are related to learner engagement, motivation, and high trainee drop out ratio. Therefore, opportunity exists for developing countries to implement successful e-learning models, which in turn may provide them trained personnel on sustained basis. They may increase productivity

to maximum level with minimum negative effect by using ICT through which knowledge can be shared from any corner of the world. If proper steps are taken, challenges and differences between the developed and developing countries can be minimized to a large extent by implementing e-learning for working manpower. In India premium institutions like IIT's and IIIT's taking initiatives to make e-learning popular. They created NPTEL portal and started offering online courses within and outside the country.

Anand Rimmi, Saxena Sharad, and Saxena Shilpi (2012) in their research paper entitled "E-learning and its impact on rural areas" mention about the awareness and impact of e-learning in selected rural areas in India. The result indicates that e-learning is found to be highly emerging knowledge tool today. In developed as well as in developing countries e-learning can bring lot of benefits in rural areas and to agrarian sector. E-learning has much wider scope in the areas which are undeveloped and are not so educated. E-learning provides knowledgeable contents through CD, DVD, multimedia and other tools. The main limitation of this method is the availability of proper bandwidth, readiness of e-learners and a set of skills to deliver the content to learners. Overall, almost 48 per cent providers reported that e-learning is beneficial for rural service providers to impart advance knowledge, to prepare people for promotions, better job opportunities, and to learn new developing technologies available in the market.

E-learning in Power Sector Companies

This study is largely empirical in approach in which quantitative research method was used to solve the research questions. This study is aimed to determine challenges pertaining to training and development through e-learning. It also identifies the factors that hinder the growth of e-programs in organizations. This study was an attempt to overcome the concerns and initiatives across three power sector organizations (KEC, Torrent Power and Siemens). The main objective of this study is to explore and overcome the current work environment and difficulties in implementation of e-learning in Power sector. Some specific objectives are given as under:

- To understand the role of learning process in skill enhancement of employees in power sector.
- To analyze potential of e-learning in implementation of new knowledge and skills in organizations to enhance general business skills, task specific skills and customer service training.
- To identify how e-learning enables organizations to reduce cost of employee training and simultaneously adopt processes to improve overall competitiveness of enterprises.
- To explore current work environment and to overcome difficulties in implementation of e-learning in selected companies.

Taking into account the challenges faced by employees in e-learning program and to determine effectiveness of e-learning program in selected organizations, the respondents were asked to share their experiences they had with e-learning practices being followed in their organizations and give suggestions to make it a success. The variables which have been identified in this study include e-learning, employee satisfaction, employee commitment, impact on job performance and organizational competitiveness. A random sample of 280 employees working in selected power sector international corporations was taken. Stratified Sampling Method was used to represent the population and strata were identified on the basis of different managerial levels and functional areas. The study is based on primary and secondary data taken from a purposively designed questionnaire and published reports from the covered organizations.

## E-LEARNING ISSUES AND CHALLENGES

E-learning, despite predictions, cannot replace traditional training and education. Many senior

executives hesitate to adopt e-learning as a mode of training to their employees. Some of the reasons that pose resistance in using it are its novelty, lack of knowledge, insufficient budget, lack of IT infrastructure, and employee perception to adapt it. (Ettinger et al., 2006). E-learning too requires time to attend training sessions and completion of given assignments as in traditional learning tool. For implementing a successful e-learning program, companies need to understand its limitations and develop a well thought plan to ensure its success.

E-learning is considered by organizations as new training & development possibility and a prospect to economize use of time and financial resources. Nevertheless, poor content quality, unpleasant learning experience with inadequate learning conversion into performance outcome was observed. Following are the other issues:

- Lack of learners' motivation is one of the most common e-learning challenges that e-learning professionals must overcome. Learners often have the belief that conventional training programs are more effective because they are imparted in a familiar environment.
- Many employees resist in taking an e-learning as they perceive their inability to go with required pace or that it will require a great deal of their time. Furthermore, trying to keep track of learners' progress may be the most difficult challenge to address.
- There exists a belief that e-learning environment offers no support. However, it is a general misconception that e-learning modules are imparted in isolated situations and offer no support to learners. Similar misconception felt is that virtual environment is not appropriate to keep sustained learner interest.

Challenges being experienced related to T&D through e-learning:
In an online survey done on an international power and energy corporation, respondents were asked to rank the challenges being experienced by the employer in providing e-learning T&D facility to people in your organization. The outcome of the e-learning survey is shown here below in Table 1.1.
Table 1.1. Challenges Experienced in Extending E-learning Facility

| Option | N | Median | Average Rank | Z Value |
|---|---|---|---|---|
| High up-front costs | 280 | 2.00 | 849.50 | -4.18 |
| Employee resistance to e-learning | 280 | 2.00 | 756.70 | -7.15 |
| Lack of management support | 280 | 2.00 | 933.60 | -1.50 |
| Lack of technical support | 280 | 2.00 | 972.80 | -0.25 |
| Trainers knowledge and skills to teach | 280 | 3.00 | 1067.60 | 2.78 |
| Inappropriate learning culture | 280 | 3.00 | 1152.20 | 5.48 |
| Irrelevance to real-time  tasks | 280 | 3.00 | 1131.10 | 4.81 |
| Overall Rank | 1960 | | 980.50 | |

*H = 120.62 DF = 6 P = 0.000 (adjusted for ties)*
In the above table Median and Average Rank is compared using the Kruskal-Wallis H Test to determine whether there was any significant difference among the average ranks of challenges being experienced pertaining to T&D through e-learning at workplace?

- A statistical significant difference was found among average ranks of challenges being experienced pertaining to T&D through e-learning at workplace. It was found that Employee Resistance to e-learning got the highest importance whereas Inappropriate Learning Culture was given the least importance.

## FINDINGS

**Some common challenges and obstacles faced by organization in implementation of an e-learning solution are as follows:**

- **Initial content creation requires significant investments**
  Initial investment requirement for e-learning solution is larger due to content and program
  development costs. Budgets and cash flows are needed to be negotiated.

- **Technology related issues**
  Technology related issues like whether the existing hardware and software setup can help
  to achieve the training goals or additional technological expenditures will be required and
  whether all software and hardware setups are compatible.

- **Improper content**
  Improper content of e-learning may pose a challenge as opined by some experts, though
  they are limited in number.

- **Organizational culture**
  Organization's Culture can be an issue where learner's demographics and psychographics
  may influence them against using computers for e-learning programs.

- **People resistance**
  Employees in beginning resist change. It may be difficult to convince management to make
  the required investment and to the employees to enroll themselves for e-learning program.

- **Less social and cultural interaction**
  Infrequent social and cultural interaction is proving an inhibition. The exclusion of peer-to-
  peer learning, inappropriate use of communication mechanisms such as body language,
  gestures etc. However, these disadvantages are reducing with development in
  communications technologies.

## CONCLUSION

On the basis of above analysis, it could be concluded that e-learning provides flexible learning options for employees and allow them to up-skill. E-learning at workplace, and outside it may reduce cost of training to workforce. This is possible due to reduced need for travel and saving of employees' time as they are not expected to leave workplace to report at training locations. E-learning is particularly useful for a geographically dispersed workforce as it can deliver them a consistent training experience at different locations. It provides consistency in training, increased convenience and control over learning by learners, improved monitoring capabilities for employers, and reduced costs due to decreased travel costs and employee absenteeism. However, it has some drawbacks but if managed systematically it may offer better results. Employee motivation, readiness and ability to use emerging technologies are important for e-learning participation. Majority of employees believe that their employers continued to invest in e-learning and that it is an effective tool for training and development. However, sizeable numbers of employees are facing difficulties in using e-learning.

Some potential challenges of E-learning are - upper management unenthusiastic attitude for E-learning; lack of appropriate infrastructure and bandwidth; inability of managers to categorize    training needs for different classes of employees. Lack of formalized training program also causes E-learning difficulties in making good use of this too. Therefore, organizations should adapt and suggest e-learning in lieu of formalized - structured training only after development of well thought modules for different needs and extend all support to make it useful.

Employee attitude is also play an extremely important role in imbibing learning and utilizing it in performance. In spite of availability of the best of knowledge and skill, the will to deliver the better services may be kept reserved by individuals if they are not imbued with appropriate attitudes. Therefore, within the e-learning modules there should be enough content to pass it acquired knowledge for better performance on the job. Without top management and training & development wing support and motivation it would be difficult to implement corporate E-learning strategy effectively. Therefore, management must consider above mentioned points carefully so that optimum benefits of e-learning may be realized.

The research findings have implications for the human resource management in general and training and development department in particular. The importance of e-learning is not being exaggerated as 84 percent of our respondents are now using e-learning at work. Therefore, employers and human resource managers should think strategically before investing in training delivery methods that may prove effective for their people. When considering which training method to invest in, managers must focus on convenience, cost, accessibility, new developments and deployment speed. On all above parameters e-learning proved to be beneficial.

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