

## A Conceptual Framework of Usage of Technology In HRD

Student Corner

Shaik Md. Azarruddin  
Final Year student, Dhanraj Baid Jain College,

### ABSTRACT

*In the information age, technology is rapidly becoming an integral part of organizational life. Ever increasing technology applications have significantly reshaped the day-to-day practices of Human Resource Development (HRD). Technology, including the information revolution and globalization continue to exert major effects on HRD. It encompasses a wide range of subjects such as health care, nutrition, population control, education and training. A HRD strategy requires a sharing of responsibilities among the government, employers and employees which is based on investment in social infrastructure and investment in education & training. The fruits of HRD are evident in the much publicized rapid development achieved over a short period of time by Singapore, Hong Kong, the Republic of Korea, Taiwan, China, and earlier by Japan. HRD enhances employee competence in their jobs by increasing knowledge, abilities, and skills. The objectives of this paper are to find the reason for the increased importance of HRD in achieving socioeconomic development. This study also explores the role of technology in HRD, especially about three issues. First, it identifies the challenges that technology has brought to HRD in the twenty-first century. Second, it analyzes the impact of technology on HRD practices with a focus on emerging HRD practices in virtual environments. Third, it provides insights into the future of virtual HRD in training and development, organizational development, and career*

*development. This chapter presents a conceptual framework for thinking about the role of technology in the digital workplace and highlights the challenges faced by HRD professionals in promoting individual and organizational learning and performance improvement.*

**Keywords:** Human Resource Development (HRD), Technology, Globalization, Socio-Economic Development, Strategy, Information.

### INTRODUCTION

Technology, globalization, and the changing demographics have created new workplaces that are dynamic in nature requiring effective and strategic Human Resource Development (HRD) for organizations to stay competitive. Human resource development is conducted in a wide range of organizations for a variety reasons and in turn focuses on an array of content. Within human resource development, Swanson and Holton (2001) state the “two core threads of HRD are individual and organizational learning and individual and organizational performance.” The literature in HRD does not view the areas of learning and performance the same. However, the overall goal is to improve the individual and/or organization in a specific area. Similarly, instructional technologies are being used with a variety of content in a number of disciplines with the overarching goal to improve learning. Learning and performance are two major paradigms within the field of human resource development (Kuchinke, 2000). Instructional technology can be used to impact both learning and performance. The purpose of this paper is to provide an overview

of instructional technologies that can be used in the HRD process and, specifically, in training and development.

### **HUMAN RESOURCE DEVELOPMENT**

Human Resource Development (HRD) is an emergent field that builds upon multiple disciplines including psychology, business, and education (Kuchinke, 2001). The HRD field is well established in practice, however has had only a brief formal existence in academia in comparison to many other disciplines (Swanson and Holton, 2001). When examining the theories of HRD, Weinberger (1998) reported definitions in the field as early 1970. Only recently has HRD been identified as a field in academia. According to the National Centre for Education Statistics the Classification of Instructional Programs: 2000 Edition identified HRD as a new academic discipline and provided a specific code in 2000.

The literature has provided many definitions of HRD. The definitions of HRD key components demonstrate the multi-disciplinary nature of the field and include behavioural change, adult learning (formal and informal), performance (human, organizational, individuals level, work process), performance improvement, organizational and personal goals, development (career and organizational), training and development, learning, learning climate, and learning organizations. Key definitions have a variety of underlying theories including psychological, systems, economic, philosophical, human performance, organizational performance, and performance system. While a wide variety of perspectives in the field of HRD can provide a view that is not limiting, it can also create too broad a field of study that is hard to define. For the purpose of this paper, HRD will be defined as the "...process for developing and unleashing human expertise through organization development, and personnel training and development, for the purpose of improving performance" (Swanson & Holton, 2001, p. 4). Swanson and Holton (2001) include system, psychological, and economic as underlying theories in the framework for HRD.

### **THEORETICAL FRAMEWORK OF HRD**

The Human resource development as a function has evolved in India very indigenously from the year 1975 when Larsen & Toubro company conceptualized HRD as an integrated system and decided to separate it from personnel. Since then, in the last 25 years most organizations have started new HR departments or re-designated their personnel and other departments as HRD departments. Today there are high expectations from HRD. Good HRD requires well structured function and appropriately identified HRD systems, and competent staff to implement and facilitate the change process.

The consultants differentiated the HRD from other components of HRF and also integrated structurally and system-wise. Structurally the HRD is to be a subsystem of HRD and integration of this with the other two subsystems (Personnel Administration and Worker Affairs) to be done by the director level person (for example Vice-President Personnel & HRD), through task forces and sub-system linkages. Inter system linkages were outlined between various HRD subsystems to have an integrated system

### **Changing Role of The HRD Professional**

It has been quite obvious how instructional technologies have impacted the process of training and development. Furst-Bowe (1996) stated that the HRD professional does not need to concentrate on the development as much as the use and evaluation of instructional technologies. The changing technologies have offered a variety of methods to deliver training, reduce costs, and provide many options for training. How this impacted the HRD professional is not the question. The question is how much it has impacted the role of the HRD professional. First, technology is changing many of the solutions available for the HRD professional in the areas of learning and performance in addition to changing many of the traditional administrative tasks. However, the role of the HRD professional is still to help improve the organization and individual. The traditional trainer

is identified as a coach or facilitator, not someone that stands up in front of classroom and delivers training. He or she needs to be skilled in instructional design, organizational change, and organizational behaviour. Since HRD is defined broadly, the implementation of technology and the use of instructional technology are impacting the role of the HRD professional. While the overarching theories are similar and the models are still appropriate, the areas of design and develop have been impacted the most.

### **Globalization**

Globalization is a term in business that refers to the integration of an organization's operations, processes and strategies into diverse cultures, products, services and ideas. Because of its emphasis on diversity, globalization also has a deep impact on the way companies manage their employees. Understanding the effects of globalization on human resources can help managers to better equip their organizations for the increasingly global business environment.

### **Push For Professional Development**

A further effect of globalization on HR management is a push for professional development. Professional development is concerned with providing employees opportunities to achieve their career-related goals. Some organizations provide resources for their employees to earn a university degree; others send their employees to conferences or networking events and training days. Professional development is important to globalization because it creates a win-win situation. The employees feel as though the organization is concerned with providing a range of skills and competencies for their employees. Likewise, the organization benefits from the added skills and connections that the employees who take advantage of professional development programs acquire.

### **Diversity Recruitment**

With the rise of globalization, companies of all sizes are now interacting with customers and

stakeholders from diverse cultures, languages and social backgrounds. In response, many human resources managers seek to hire employees from equally diverse backgrounds. Companies engaging in this diversity recruitment recognize the value of having people on staff that their customers can relate to, and they know that having a team of diverse people contributes to the range of ideas and influences within the organization.

### **Management of Laws Across Jurisdiction**

A final effect of globalization on human resources management is the need for businesses to understand and apply the laws of many different jurisdictions to the particular business. The federal government sets out a number of tax and labour laws that businesses operating in the United States must comply with, but there may also be local and regional laws that apply to companies that operate in different states or different countries. Selling products in Europe, for example, might mean that a company has to impose a Value-Added Tax on its goods. Hiring employees at branch locations in different locations might change the requirements on minimum wage, tax allowances or working hours. Understanding these laws is vitally essential to the organization because any breach of them will have a serious impact not only on the business's financial well-being but also on its reputation.

### **Socio-Economic Development**

Socio-economic development is a process that seeks to identify both the social and the economic needs within a community, and seek to create strategies that will address those needs in ways that are practical and in the best interests of the community over the long run. The general idea is to find ways to improve the standard of living within the area while also making sure the local economy is healthy and capable of sustaining the population present in the area. Socio-economic development occurs in neighbourhoods in metropolitan areas, sections of smaller cities and towns, and even in rural settings.

There are a number of factors that must be considered as part of any socio-economic development effort. Understanding the current circumstances that prevail in the area is the first step toward regional development. By assessing the potential of human capital in the area, allowing for the current unemployment rate and when laws and regulations are currently in place that may be impeding the introduction of new industry into the area, it is possible to begin developing a plan that will ultimately mean more jobs, stable employment for more households, and more money flowing through the local economy.

### **Greater Emphasis on Training**

Similar to professional development, a greater emphasis on training has resulted because of globalization in human resources management. Training, however, tends to be focused on the needs and professional competencies of groups of employees within the organization. The company might, for instance, host language classes to give its call centre staff an edge in telephone sales. It might also teach its employees how to use a new global software platform. This emphasis on training seeks to give the company a competitive edge in the global marketplace by honing the employees' diversity emphasis.

### **EDUCATION AND TRAINING**

A national drug policy requires a wide range of skills. Staff at all levels needs to be familiar with key policy issues that affect the quality, supply and use of drugs, and should understand the key objectives of the drug policy. For each category of personnel, the nature and extent of their involvement in the policy should be clearly defined. This will make it possible to decide on the orientation and level of training required for each category. There should be a number of minimum educational and training requirements for each category. For example, personnel and staff involved in specific activities to ensure the quality of drugs should be given adequate training in specific areas of quality assurance. Those involved in the drug

supply system should receive training in management, supervision and certain administrative skills that they require.

### **Formal Training**

While all levels of education have been impacted by instructional technology, technology has specifically impacted how vocational, postsecondary, and higher education develops the workforce. While human resource development encompasses many areas including performance improvement, organizational analysis, employee relationship management, evaluation, leadership, and organizational change management; a large role of human resource development is viewed in terms of training and employee development. Within HRD, training and development has had the greatest impact from instructional technologies. According to Marsick and Watkins "Formal learning is typically institutionally sponsored, classroom-based, and highly structured". Formal learning can be mediated by technology and is becoming an ever increasingly used technique in the workplace (Benson, Johnson, and Kuchinke, 2002). This section will highlight web-based instructional technologies such as learning management software, synchronous learning tools, and asynchronous instructional technologies for formal training and employee development.

### **Informal Training**

Informal training is defined in contrast to formal learning. "Informal learning is usually intentional but not highly structured...When people learn incidentally, their learning may be taken for granted, tacit, or unconscious" (Marsick and Watkins, 2001). Examples of informal learning can include "self-directed learning, networking, coaching, mentoring, and performance planning that includes opportunities to review learning needs" (Marsick and Watkins, 2001).

Many of the technologies that have been described above for formal training can also be used in informal training settings. Having a course designed and available without an instructor

provides a setting that supports self-directed learning. Learning management software can be used to design this type of course and make it available to employees. Instant messenger can be used to help individuals in work teams learn in informal settings. This technology can be used to see answers to questions on an 'as needed' basis. An example of informal training using a Blog can be seen at the University of South Carolina. The Technology Support and Training Management Department implements a blog with their current students to share information on classes and special announcements. This type of forum can also be used in a formal business setting.

### Strategies for Human Resource Development

The government should take responsibility for planning and overseeing the development of the necessary human resources. The strategies chosen should realistically reflect the needs and capacity of the country, and an adequate budget should be allocated. Consideration of the following aspects will help to ensure the development of a human resources policy that is supportive of national drug policy implementation.

It is necessary to plan from an early stage and to do so for short-, medium- and longer-term needs. A quantitative analysis of the human resources needed (including a realistic estimate of the attrition rate) may help to set priorities. Financial planning should match the financial resources with priority needs. Good planning and appropriate lead times will help to ensure that a sufficient number of trained people are available. Plans should include a career development policy and measures to retain staff in the service.

HRD strategies include:

- Management / Supervisory Training
- Team building Training
- Customer Service Training
- Harassment Training
- Tuition Reimbursement Program
- Performance Management

- 360 degree / multi-rater feedback system
- Career Coaching

### Career Development and Team Building

Long-term plans are essential for ensuring a balance between training activities and human resources needs. Continuing education programmes and opportunities to collaborate with others can motivate staff, and help to keep them up to date. In addition, attention must be given to the payment of adequate wages and other incentives to retain staff.

The goals of the drug policy and the importance of the various components must be communicated to all concerned. Staff should be given clear responsibilities and targets, and should be informed of successes and failures through monitoring and evaluation. If they feel that they are part of a team, this will help to maintain a sense of involvement, purpose and motivation.

### Collaboration with National Institutions

Activities that require specialist expertise - for example, drug evaluation and drug information services - can often be carried out more effectively within universities, training institutions or professional societies than within the health ministries. Collaboration between drug regulatory authorities and universities, research institutions, professional societies and individuals maximizes the use of national expertise and resources. It also builds up a network of people who are knowledgeable and involved in the development and implementation of the drug policy. Outside specialists can fill gaps where national expertise is lacking and can be used in national training programmes to pass on their expertise. When appropriate, professionals can be sent for short training programmes abroad.

### Information

A Human Capital Management Solution, Human Resources Management System (HRMS), or Human Resources Information System (HRIS), as it is commonly called, is the crossing of HR systems



and processes with information technology. The wave of technological advancement has revolutionized each and every space of life today, and HR in its entirety was not left untouched. Early systems were narrow in scope, typically focused on a single task, such as improving the payroll process or tracking employees' work hours. Today's systems cover the full spectrum of tasks associated with Human Resources departments, including tracking & improving process efficiency, managing organizational hierarchy, and simplifying financial transactions of all types. In short, as the role of Human Resources departments expanded in complexity, HR technology systems evolved to fit these needs. The function of Human Resources (HR) departments is administrative and common to all organizations. Organizations may have formalized selection, evaluation, and payroll processes. Management of "human capital" progressed to an imperative and complex process. The HR function consists of tracking existing employee data which traditionally includes personal histories, skills, capabilities, accomplishments and salary. To reduce the manual workload of these administrative activities, organizations began to electronically automate many of these processes by introducing specialized human resource management systems. HR executives rely on internal or external IT professionals to develop and maintain an integrated HRMS. Before client-server architectures evolved in the late 1980s, many HR automation processes were relegated to mainframe computers that could handle large amounts of data transactions. In consequence of the high capital investment necessary to buy or program proprietary software, these internally developed HRMS were limited to organizations that possessed a large amount of capital. The advent of client-server, application service provider, and software as a service (SaaS) or human resource management systems enabled higher administrative control of such systems. Currently human resource management systems encompass:

1. Payroll
2. Time and attendance

3. Performance appraisal
4. Benefits administration
5. HR management information system
6. Recruiting/Learning management
7. Performance record
8. Employee self-service
9. Scheduling
10. Absence management
11. Analytics

### Future Trends and Impact on HRD

The future of instructional technologies in HRD is hard to predict. It is apparent that HRD and instructional technology have grown out of the instructional media field (Rosenberg, 1982). The fields have begun to merge: while the instructional technology field focuses more on learning and the HRD focuses more on business and performance, both work jointly to improve performance.

With the increase in bandwidth when using Internet technology and the growing number of individuals with computer access, the possibilities are endless. With the push to open source learning management systems, it is possible for many organizations to afford instructional technologies for training. The use of strong evaluation to demonstrate what is working will provide a positive impact on HRD. HRD professionals collecting and providing evidence of success in terms of strategic business areas will additionally help the profession strengthen. Instructional technologies are creating many opportunities for informal learning. Additionally, many of the instructional technologies mimic a business environment that is today calling for global collaboration, continuous learning, and knowledge management. If used strategically, the instructional technologies can be used to create a learning culture and help keep competitive advantage. This can help in the creation of an organization that has the ability to foster learning.

**Latest trends in HR Technology are:**

- There will be a move from Quantity to Quality.
- The number of so-called Breakthrough HR technologies will diminish.
- It's all about implementation.
- Analytics is the special sauce.
- Social media and Continuous Learning continue to grow in significance

**Conclusion**

In conclusion, HRD initiatives are implementing instructional technology widely. While there is a great deal of literature on the use of instructional technology in human resource development, there is not as much research on the effectiveness of the instructional technology. More research is needed to evaluate the impact of instructional technology and specifically how the instructional technology impacts the strategic goals of organizations. Metrics are needed to assess the impact of instructional technology. Since instructional technology in HRD is used in such a wide variety of settings, providing scientific methods to view effectiveness would be useful. Additional research on informal learning would strengthen the case for its use in HRD.

Further development is needed in research and theoretical foundations in the area of HRD instructional technology use. Since instructional technologies are changing the role of the HRD professional, it would be useful to examine the traditional frameworks to see the impact of instructional technology. For example, does the traditional andragogy model fit with the use of instructional technology in HRD? Instructional technology will continue to be used in developing human resources in the workplace. A better understanding of how instructional technology and human resource development work together will improve the development of human expertise.

**References**

1. Bates, S. (2008). Social networks catching on as HR tool. Retrieved April 7, 2009, from [www.shrm.org/Publications/HRNews/Pages/SocialNetEmergingTool.aspx](http://www.shrm.org/Publications/HRNews/Pages/SocialNetEmergingTool.aspx).
2. Bell, B., Lee, S., & Yeung, S. (2006). The impact of E-HR on professional competence in HRM: Implications for the development of HR professionals. *Human Resource Management*, 45(3), 295-308.
3. Brandel, M. (2008, August 11). The new employee connection: Social networking behind the firewall. *Computerworld*. Retrieved from [www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=322857](http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=322857)
4. Kandula, R.Srinivas, Strategic Human Resource Development, Prentice Hall of India.
5. DeRouin, R., Fritzsche, B., & Salas, E. (2004). Optimizing E-Learning: Researchbased guidelines for learner-controlled training. *Human Resource Management*, 43(2, 3), 147-162. DiMicco,
6. Millen J.M, D. R., Geyer, W., & Dugan, C. (2008). Research on the use of social software in the workplace. Presented at CSCW 2008 workshop, Social Networking in Organizations, November 8–12, San Diego, CA. Friedman, T. (2007). *The world is flat*. New York: Picador/Farrar, Straus and Giroux.