

Evaluation of Different Instructional Design Methods for Training in IT companies of Bengaluru

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Abstract

Technology has been developed in the area of Human Resource Management (HRM) with the objective of virtual communication and automated processes in most of the HR processes at workplace. Numerous reasons can be ascribed to the alignment of traditional HR roles and responsibilities with technology based roles and processes in the HR domain. Cost -cutting, progression of the existing manual work with automation, global culture, changing values, virtual communication, HR as a resource and several other factors have contributed to the gradual changes. It would be very intricate to bring into line the growing demand for technical growth with diversified roles and responsibilities in HR area for the Leaders. Performance assessment metrics, HRIS (Human Resource Information Systems), IT applications on HRM, HR audit, web-based technology and various other aspects of HRM is making the HR leaders proactive in each and every phase of work. The employees call for the training which meets the global standards through technology based approach in structuring the learning and also the contentment with the job. The strategic thinking and proactive forecasting of the HR needs of the organization is one of the great challenges of HRD (Human Resource Development). This research paper is an attempt to know different instructional design methods used for training in IT companies of Bengaluru. Further, it helps to appraise the existing methods and to discern the Management reactions to the global

changes of technology in HR. We would realize the training implications with the methods used for training employees in IT companies of Bengaluru.

Keywords: Human Resource Information Systems, HR Audit, Human Resource Development, Instructional Design Methods, & Training Technology.

Introduction

Training design deals with the identification of entire training program. The training objectives of the training designs are very essential factor in training decisions since it covers the contents, methodology and extent with the base of training need analysis. Training designs are an effective way of taking decisions of imparting training to the employees. It becomes a crucial requirement for the Management to consider in all dimensions of Employee's learning and its role in contributing to the productivity of the organization. A few surveys conducted previously by the academic researchers opine that one of the vital factors for attrition in companies is enhanced training opportunities with the new companies where the employees join. A lot of benefits and perks are given by the companies; at the same time companies should concentrate on retaining the paramount talents by providing various training opportunities to widen skills in them. There is a constant effort in making the HR as an imperative factor in bringing the success for an organization. Lot of research needs to be conducted to scrutinize the deficiencies in the training in IT industry.

Literature Review

Training and Development has a positive effect on Organizational Performance. Training Design and Delivery style have significant effect on Organizational Performance and all these have positively affected the Organizational Performance. It means, it increases the overall organizational performance (Khan, Abdul et al, 2011). Since, performance remains as one of the main objectives of any company, much research has been intended for at explaining and accepting the association among human resources practices and firm performance. It is affirmed that elucidating organizations' performance variations stay one of the most durable subjects of study (March and Sutton, 1997). A skilled and motivated workforce can have a very significant task to provide the necessary speed and flexibility to the organization to expand competitive advantage in a vibrant market environment where traditional sources of competitive advantage (quality, technology, economies of scale, etc.) have become easier to be imitated by the organization's competitors (Becker and Huselid, 1998). A considerable body of evidence has accrued over the past decade that suggests individual difference can have unfavorable repercussions on team outcomes. Constant employee training and development is necessary for organizations to generate and sustain viable advantages (Jentsch, Smith et al., 2001). Team task design can be distinguished as a sequence of structures and functions within a group context that establish the distribution of tasks, responsibilities and authority (Stewart & Barrick, 2000).

Statement of the problem

"Evaluation of Different Instructional Design Methods for Training in IT companies of Bengaluru" is the title of the study. Over a period of time the way organizations are working is inclined by the emerging technologies and timely up gradation of the system and each and every change. But, on the contrary the training designs are also undergoing definite changes in due course of action. The technological advances have made the Human

Resource Development a big challenge with upgrading the training designs and technologies in the similar pace. This study focuses on evaluating the existing instructional design methods for training in IT companies of Bengaluru.

Hypothesis

- Null Hypothesis: The choice of an instructional design is independent of the experience of Employer.
- Alternate Hypothesis: The choice of an instructional design is dependent on the experience of the Employer.
- Null Hypothesis: The choice of an instructional design is independent of the education of Employer.
- Alternate Hypothesis: The choice of an instructional design is dependent on the education of the Employer.
- Null Hypothesis: The choice of an instructional design is independent of the age of Employer.
- Alternate Hypothesis: The choice of an instructional design is dependent on the age of the Employer.

Scope

The evaluation of different instructional design methods in the organization shall definitely facilitate us in analyzing and taking decisions appropriately in the organizational context and on par with the industry standards. This would help the HR leaders of the companies to accomplish standardized training programmes and plans pertaining to their specific requirements. This would also guide to comparison of the very effective design methods and it's applicability for organization.

Objectives

- Examine the different instructional design methods of the organizations.
- Know the effective instructional design methods in industry.
- Evaluate the impact of decisions based on the design methods.

Limitations

This study was limited to companies of Bengaluru.

Research Methodology

The convenience sampling design has been applied for this study. Questionnaires were administered personally, through e-mail and telephonic discussions. Core IT Employees were chosen among different IT companies of Bengaluru region. Total of 100 respondents were chosen with five employees from each company and questionnaires were administered after pilot testing. This study was conducted through a survey questionnaire with convenience sampling respondents selected among employees (Management). Further the sources for secondary data included government documents

and few researches conducted in other countries and previous researches in India. Data collected were checked for completeness before being analyzed using Statistics tools like Descriptive Statistics, Anova Tests, Reliability and validity test with Cronbach’s alpha. This was supplemented by using SPSS statistical tool for analysis and illustration.

Findings and Discussion

Reliability and Validity Test: The Cronbach’s alpha test for reliability and validity was done for the data which was found to be 0.7. Hence, data is valid.

Table: 01
Descriptive Statistics

	N Statistic	Mean		Std. Deviation Statistic
		Statistic	Std. Error	
E-learning Framework	100	3.97	.072	.717
Instructional Design Coordinator	100	3.96	.079	.790
Training	100	3.89	.089	.886
Educational Assessment	100	3.69	.081	.813
Interdisciplinary Teaching	100	3.52	.107	1.068
Educational Technology	100	3.43	.108	1.075
ADDIE Model	100	3.36	.092	.916
Education	100	3.19	.049	.486
Instructional Theory	100	2.75	.113	1.132
Educational Animation	100	2.74	.100	1.001
Experience	100	2.69	.063	.631
Learning Object	100	2.58	.090	.901
Interaction Design	100	2.43	.109	1.094
Storyboard	100	2.27	.062	.617
Mobile Learning	100	1.64	.070	.704
Valid N (list wise)	100			

The choice towards selecting the instructional design methods are represented above in decreasing order of preference. The E-learning framework is in the top and the mobile learning is the least preferred instructional design method among the rest. It shows that the respondents are more inclined towards E-learning framework in the design of training. Instructional Design Coordinator and Training are subsequently second and third in the preference list among the respondents which makes us to know that still respondents haven’t completely moved towards other design methods.

ANOVA Table: 02

		Sum of Squares	df	Mean Square	F	Sig.
ADDIE Model	Between Groups	3.234	2	1.617	1.965	0.146
	Within Groups	79.806	97	0.823		
	Total	83.04	99			
Educational Assessment	Between Groups	3.369	2	1.685	2.635	0.077
	Within Groups	62.021	97	0.639		
	Total	65.39	99			
Educational Animation	Between Groups	0.929	2	0.465	0.458	0.634
	Within Groups	98.311	97	1.014		
	Total	99.24	99			
Educational Technology	Between Groups	8.123	2	4.062	3.703	0.028
	Within Groups	106.387	97	1.097		
	Total	114.51	99			
E-learning Framework	Between Groups	0.841	2	0.42	0.815	0.446
	Within Groups	50.069	97	0.516		
	Total	50.91	99			
Instructional Theory	Between Groups	0.925	2	0.463	0.357	0.701
	Within Groups	125.825	97	1.297		
	Total	126.75	99			
Interaction Design	Between Groups	0.665	2	0.332	0.274	0.761
	Within Groups	117.845	97	1.215		
	Total	118.51	99			
Learning Object	Between Groups	0.491	2	0.245	0.298	0.743
	Within Groups	79.869	97	0.823		
	Total	80.36	99			
Mobile Learning	Between Groups	1.354	2	0.677	1.377	0.257
	Within Groups	47.686	97	0.492		
	Total	49.04	99			
Instructional Design Coordinator	Between Groups	1.662	2	0.831	1.34	0.267
	Within Groups	60.178	97	0.62		
	Total	61.84	99			
Storyboard	Between Groups	0.023	2	0.011	0.029	0.971
	Within Groups	37.687	97	0.389		
	Total	37.71	99			
Training	Between Groups	2.204	2	1.102	1.414	0.248
	Within Groups	75.586	97	0.779		
	Total	77.79	99			
Interdisciplinary Teaching	Between Groups	4.338	2	2.169	1.937	0.15
	Within Groups	108.622	97	1.12		
	Total	112.96	99			

Note: The following hypothesis is used for table 2.

- Null Hypothesis: The choice of an instructional design is independent of the experience of Employer.
- Alternate Hypothesis: The choice of an instructional design is dependent on the experience of the Employer.

The above ANOVA table shows that the null hypothesis is accepted at 5% level of significance for all the instructional design except for “educational technology”. This means that the decision to choose a particular instructional design is not influenced by the experience of Employer. However, this is not true for “educational technology”.

Table: 03

		Sum of Squares	df	Mean Square	F	Sig.
ADDIE Model	Between Groups	2.864	2	1.432	1.732	0.182
	Within Groups	80.176	97	0.827		
	Total	83.04	99			
Educational Assessment	Between Groups	0.017	2	0.009	0.013	0.987
	Within Groups	65.373	97	0.674		
	Total	65.39	99			
Educational Animation	Between Groups	0.519	2	0.259	0.255	0.776
	Within Groups	98.721	97	1.018		
	Total	99.24	99			
Educational Technology	Between Groups	2.987	2	1.493	1.299	0.278
	Within Groups	111.523	97	1.15		
	Total	114.51	99			
E-learning Framework	Between Groups	0.794	2	0.397	0.769	0.466
	Within Groups	50.116	97	0.517		
	Total	50.91	99			
Instuctional Theory	Between Groups	0.621	2	0.31	0.239	0.788
	Within Groups	126.129	97	1.3		
	Total	126.75	99			
Interaction Design	Between Groups	3.785	2	1.893	1.6	0.207
	Within Groups	114.725	97	1.183		
	Total	118.51	99			
Learning Object	Between Groups	1.228	2	0.614	0.753	0.474
	Within Groups	79.132	97	0.816		
	Total	80.36	99			
Mobile Learning	Between Groups	1.596	2	0.798	1.631	0.201
	Within Groups	47.444	97	0.489		
	Total	49.04	99			
Instructional Design Coordinator	Between Groups	1.232	2	0.616	0.986	0.377
	Within Groups	60.608	97	0.625		
	Total	61.84	99			
Storyboard	Between Groups	3.957	2	1.978	5.685	0.005
	Within Groups	33.753	97	0.348		
	Total	37.71	99			
Training	Between Groups	3.725	2	1.862	2.439	0.093
	Within Groups	74.065	97	0.764		
	Total	77.79	99			
Interdisciplinary Teaching	Between Groups	0.393	2	0.197	0.17	0.844
	Within Groups	112.567	97	1.16		
	Total	112.96	99			

Note: The following hypothesis is used for table 3.

- Null Hypothesis: The choice of an instructional design is independent of the education of Employer.
- Alternate Hypothesis: The choice of an instructional design is dependent on the education of the Employer.

The above ANOVA table shows that the null hypothesis is accepted at 5% level of significance for all the instructional design except for “storyboard”. This means that the decision to choose a particular instructional design is not influenced by the education of Employer. However this is not true for “storyboard”

Table: 04

		Sum of Squares	df	Mean Square	F	Sig.
ADDIE Model	Between Groups	6.447	3	2.149	2.694	0.05
	Within Groups	76.593	96	0.798		
	Total	83.04	99			
Educational Assessment	Between Groups	4.433	3	1.478	2.327	0.079
	Within Groups	60.957	96	0.635		
	Total	65.39	99			
Educational Animation	Between Groups	4.675	3	1.558	1.582	0.199
	Within Groups	94.565	96	0.985		
	Total	99.24	99			
Educational Technology	Between Groups	0.969	3	0.323	0.273	0.845
	Within Groups	113.541	96	1.183		
	Total	114.51	99			
E-learning Framework	Between Groups	3.003	3	1.001	2.006	0.118
	Within Groups	47.907	96	0.499		
	Total	50.91	99			
Instuctional Theory	Between Groups	1.9	3	0.633	0.487	0.692
	Within Groups	124.85	96	1.301		
	Total	126.75	99			
Interaction Design	Between Groups	2.83	3	0.943	0.783	0.506
	Within Groups	115.68	96	1.205		
	Total	118.51	99			
Learning Object	Between Groups	1.719	3	0.573	0.7	0.555
	Within Groups	78.641	96	0.819		
	Total	80.36	99			
Mobile Learning	Between Groups	1.394	3	0.465	0.936	0.426
	Within Groups	47.646	96	0.496		
	Total	49.04	99			
Instructional Design Coordinator	Between Groups	2.666	3	0.889	1.442	0.235
	Within Groups	59.174	96	0.616		
	Total	61.84	99			
Storyboard	Between Groups	0.763	3	0.254	0.661	0.578
	Within Groups	36.947	96	0.385		
	Total	37.71	99			
Training	Between Groups	0.354	3	0.118	0.146	0.932
	Within Groups	77.436	96	0.807		
	Total	77.79	99			
Interdisciplinary Teaching	Between Groups	1.151	3	0.384	0.329	0.804
	Within Groups	111.809	96	1.165		
	Total	112.96	99			

Note: The following hypothesis is used for table 4.

- Null Hypothesis: The choice of an instructional design is independent of the age of Employer.
- Alternate Hypothesis: The choice of an instructional design is dependent on the age of the Employer.

The above ANOVA table shows that the null hypothesis is accepted at 5% level of significance for all the instructional designs. This means that the decision to choose a particular instructional design is not influenced by the age of Employer.

From table 2, 3 and 4, it is inferred that the training design does not depend upon experience, qualification and age of the Employer.

From table 1, it is inferred that the following designs are popular (in order of preference among Employers).

Preference	Instructional design
1	E-learning Framework
2	Instructional Design Coordinator
3	Training
4	Educational Assessment
5	Interdisciplinary Teaching
6	Educational Technology
7	ADDIE Model
8	Education

Recommendations

The training designs have an impact on the behavior and attitude of employees due to various factors. For the improved job performance, the effective instructional method needs to follow which is according to the preference of the respondents in the survey. E-learning framework can be still enhanced since it is the most preferred design for conducting the training in the IT industry. As a part of strategic thinking and to make Employees to be strategically knowledgeable to face the uncertainties, the Management should identify the best instructional design Coordinators to carry on

the tasks. These Coordinators can competently modify the TNA (Training Need Analysis) appropriately with the emerging methodologies. This also helps the Managements of IT industry companies to retain skilled and efficient workforce with their effective training design methods. Employees look for interesting and challenging environment to stay and work on building their career which can be considered as a most effective tool to build up future talents.

Conclusion

Training designs are very essential for the Managers to compete with the competitors and equip their employees to face the challenges in the industry. It not only focuses on the competition part but at the same time the different internal and external factors in the process of organizational success. Better instructional designs can foster greater organizational stability and less employee turnover and conflicts in this stressful competitive environment. We shouldn't underestimate the rest of training designs, even though other training designs are most effective in meeting the purpose of the training requirement.

Scope for further research

This study was limited to the different instructional designs. Further, the studies can be conducted related to participation in the training decisions, skills of the Trainer, organizational climate and training content.

References

1. Becker, B., & Huselid, M. (1998). High performance work systems and firm performance: a synthesis of research and managerial implications, *Research in Personnel and Human Resources Management*, 16, 53-101.
2. Jackson, S. E., Brett, J. F., Sessa, V. I., Cooper, D. M., Julin, J. A., & Peyronnin, K. (1991). Some differences make a difference—Individual dissimilarity and group heterogeneity as correlates of recruitment, promotions, and

- turnover. *Journal of Applied Psychology*, 76, 675–689.
3. March, J.G. and Sutton, R.I. (1997). Organizational Performance as a Dependent variable, *Organization Science*, 8, 698-706.
 4. Raja Khan , Abdul Ghafoor, Khan, Furqan Ahmed, Dr. Khan, Muhammad Aslam, (July 2011). Impact of Training and Development on Organizational Performance, *Global Journal of Management and Business Research* Volume 11 Issue 7 Version 1.0, University of Lahore.
 5. Smith-Jentsch, K. A., Salas, E., & Brannick, M. T. (2001). To transfer or not to transfer? Investigating The combined effects of trainee characteristics, team leader support, and team climate. *Journal of Applied Psychology*, 86, 279–292.
 6. Stewart, G. L., & Barrick, M. R. (2000). Team structure and performance: Assessing the mediating role of intrateam process and the moderating role of task type. *Academy of Management Journal*, 43, 135–148.

