



Effectiveness of Hands-on-Training on the Application Software Tools among Teachers at Higher Education Institutions



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ABSTRACT

Teachers of 21st century learners pursue continuous professional learning and are aware of using technology that would enhance their academic and administrative capabilities. The focus of the five day hands on training on Application Software Tools was organised by School of Education sanctioned under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) scheme by the MHRD, Government of India at

Manonmaniam Sundaranar University, Tirunelveli was intended to enhance the foundation skills of the Teachers at Higher Education Institutions (HEIs) to use the technology through software swiftly, efficiently and as effectively as possible to ensure participative teaching and blended teaching learning process. The present paper evaluates the effectiveness of Hands on Training on Application Software Tools in imparting knowledge and training for efficient application of software technology

in teaching learning practice among Teachers at HEIs. Pre-test post-test single group design was adopted to evaluate the effectiveness of the training programme on imparting know-how of ICT, to acquaint and familiarize the skills in application package of MS office, creation of mobile applications and web 2.0 tools in teaching learning process. The subjects for the study were 15 teacher participants from HEIs of the training programme. The data was collected using an 'Achievement Test on Application Software Tools' developed and validated by the investigators. The forty hours of intensive lectures and hands on training on

application software tools were rendered by five renowned resource persons were the intervention. The paired t-test analysis the study revealed that training programme created significant impact on the hands on performance of the participants in application software tools namely MS office, mobile applications and web 2.0 tools.

KEYWORDS

Blended teaching learning process, Teachers at Higher Education Institutions, web 2.0 tools, MS office tools, mobile application, and Effectiveness of training programme.

RESEARCH PAPER

Introduction

Learning is an endless activity. Learning new things whatever the age may makes one to stay alive. Growth in teaching career is not possible without learning aspiration. A true teacher must engage continuously and consistently in workshops and ongoing education courses. Great teachers always go beyond textbooks and pursue continuous education to stay in pace with the fast paced young minds. Effective leaders always encourage their colleagues to utilize the available opportunities excessively. Workshops assist teachers in integrating technology and making it cross curricular in their career and provide information on tools that could be enhance teaching learning process. This in turn develops the ability, skill of the students. Immersing the teachers into what is new and in trend paves way for their betterment in lives and thereby the education of student community too. In this fast changing scenario, enhancement of knowledge, skill, abilities and other attributes would be added benefits in participating in the training programmes. Acknowledging this the Government of India has rightly invested on teachers (Hill, 2012) by mentoring the teaching community.

Quality concerns in education are among the priorities of GoI which contributes for the development of the country. Various programs were organised for teachers and principals to enhance their understanding of curriculum and delivery mechanism and other professional qualities. These create situations where teachers of schools and higher education institutions are provided with opportunities for acquiring professional competence and backing to stay in trend in line with pedagogical skills thereby producing quality teachers to disseminate excellence in education at all levels and to render optimum benefit to all students. Conrad Hilton states that achievement seems to be connected with action. Successful men and women do commit mistakes, but they don't quit from experimenting new ideas and techniques. Teachers who apply blended mode of teaching create a positive and encouraging learning environment. With this mission, the five day Hands on Training on Application Software Tools for Teachers of Higher Education Institutions was organised by the Centre for Teacher Resource and Academic Support

(CTRAS), School of Education, under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching(PMMMNTT), MHRD, GoI at Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu in August 2019. In this 21st century knowledge society, education is undergoing new transformation and, therefore, it has to evolve in the direction of new globalizing knowledge society. The attempts are very important to create the knowledge society which starts off successfully by bringing together the entire set of present day values that must prove the capacity of recreating the attitudes and practices of global society.

Significance of the Study

Teachers to prepare students of 21st century for the modern science and technological societies demand more knowledge of latest technological tools. The skill to apply ICT in teaching – learning process (Bhattacharjee & Deb, 2016) helps in transforming the teaching learning process in a better way of our future generation. It eases the works of teacher and also students and bring the stakeholders of education together making teaching learning more attractive. Access to digital technologies in classroom by teachers fill technological gap that prevails in teaching and revolutionizes teaching learning activities. Incorporation of ICT skills in teachers and training them for blended teaching remains a challenge (Gómez-Garcia, Hossein-Mohand, Trujillo-Torres, & Hossein-Mohand, 2020). National Policy on Education 1986 and NPE 2020 also demand the enhancement of ICT skills and digital competence among teachers of 21st century learners.

Objectives of the Study

The objective of the study is to find out the effectiveness of the five days Hands on Training on Application Software Tools among teachers at Higher Education Institutions.

Hypothesis

The study proceeded with the hypothesis, ‘there is no significant difference between pre-test and post-test mean scores of teachers at HEIs in ‘Achievement in Application Software’

Methodology

The One Group, Pretest Posttest design (Best & Kahn, 2006) was adopted for the study. The sampling technique employed for the study was convenient sampling which consists of Teachers of HEIs who enrolled themselves for the five day Hands on Training on Application Software Tools. A self-constructed Achievement test in Application Software with 25 items based on knowledge on application of MSOffice Tools, web 2.0 tools and development of Mobile applications for teaching learning process was developed by the investigators and content validated by five experts, was used for conducting the pre-test. Parallel form of the same test was prepared for the conduct of post-test, without changes in its content and level of difficulty.

Procedure for conducting the experiment

In the first phase of the study, pre-test was administered to participants at the beginning of the Hands on Training programme immediately after the inauguration and before the first session of the programme. Prior oral consent from the participants were gained to access and utilize the data collected for research purpose. After completion of forty hours of hands on training by five resource persons based on essential and basic concepts and practice on application software tools namely in MS Office, web 2.0 tools and mobile applications, the post-test was conducted. The investigators facilitated the conduct of both the tests.

Statistical Analysis

The collected data was analysed using the statistical tests namely mean, SD and paired t test.

Table 1

Level of Achievement in Pretest and Posttest in Achievement Test on Application Software Tools.

Level	Pre test		Post test	
	Frequency	%	Frequency	%
Low	10	67	6	40
Average	2	13	6	40

High	3	20	3	20
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The table 1 reveals that 27% of teachers participants from HEIs showed enhancement and moved to next level in Achievement scores on Application Software in both the pre and posttest.

Table 2

Significance of Difference between Pretest and Posttest in Achievement scores

Test	N	Mean	S.D.	r value	t value	P value
Pre-Test	15	12.13	4.015	.849	5.641	.000**
Post-Test	15	15.47	4.257			

** Significant at 1% level

The table 2 reveals that null hypothesis is not accepted at 1% level of significance. It means that the teachers at HEIs show a significant difference in achievement test in application software. The mean scores show that the participants performed better in the post-test than in the pre-test.

Findings

1. The forty hours intensive training on application software enabled four participants who were at low level in pre-test to move to average level in their achievement scores.
2. The hands on training on application software significantly helped the participants to attain knowledge on various application software namely MS office, web 2.0 tools and mobile applications

Implications

PMMNMTT scheme enlightens the teaching community by offering induction programme, capacity building programs and training programs for in-serve teachers at all levels through SoE. It facilitates the teachers to stay updated. The conduct of training on application software tools to enhance ICT skills among teachers is essential for teachers' professional development to infuse technology in teaching learning process is vital. This study revealed that teachers could be provided with profound knowledge of updated ICT and application software tools and skills through hand on training sessions. The significance of preparing teachers to equip the future citizens is realized with the organization of such training programmes. The theme for any

induction programme or capacity programmes could be planned based on prior surveys among the beneficiaries to reach the objectives. Analyzing and evaluating the effectiveness of such programmes enables self- reflection among the organizers and provide insights to plan programmes as per need of the target group. Further the duration of such training programmed could be extended to one week to 15 days with travel allowances.

Conclusion

Blended learning environment is a boon for diverse learners. The teacher with technological knowledge and digital competence facilitates the positive impact on student success not only in academics but also in gaining of new skills. The paradigm shift provides a more interactive, active and engaging learning environment for teachers and learners. upgrading teachers in technology will also make teaching learning process interesting and time saving too.

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