



IMPACT OF FLUENCY, FLEXIBILITY, ORIGINALITY AND CREATIVITY THROUGH ICT ON TECHNOLOGICAL STUDENTS AND TEACHERS OF PUNJAB – A RESEARCH

Anu Malhotra, Ph. D.

Principal, SSD Girls College of Education, Punjabi University, Bathinda.

Abstract

Schooling might be the best piece of victorious establishment to rise out of the industrial age. 20th century countries have succeeded for the explanation that they perceived and utilized functional strategies for direction and work of the far reaching neighborhood. The world is changing. Headway makes us more awesome. In today's enlightening strategy, headway isn't just an instrument, yet in addition an asset for getting to data. This paper deals with the imperative effect on creativity with pedagogy through information and communication technology tools. Survey method of research has been used in this work, for which the computations have been performed through chi-square test in statistical package for social sciences (SPSS).The results shows the imperative effect of use of information and communication technology tools to enhance creativity of the students.



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I. Introduction

The general point of this examination work is to research the availability and engaging quality of various kinds of data and communication technology (ICT) tools in education. This review describes the various means in which information and communication technology (ICT) tools impacts on learning, learning environment, students and teachers. This review begins with an establishment of usage of PC and it's periphery as an informational gadget, then tends to the thinking for enlightening development, followed by discussion on disclosures of stream research on open and worldwide level on the impact of information and communication technology (ICT) [1].

The special visualizations given by activity and show programming, upgrades the interest of the understudies. Then again, web is an immense data base. Web is reforming education, [2] The web, a worldwide organization associating a huge number of PCs and PC clients, is another asset of teachers. Globalization is an overall wonders by which the world meets up to share the data. In instructive globalization, web gives upto date data of an assortment of homeroom related themes inaccessible from different sources [3]. The Definition The adaptability of a numerical origination developed by an individual is the assignment of the

relative multitude of alters of point of view and every one of the progressions between various portrayals the individual can oversee inside this origination [4]. As per L. P. Steffe and P. W. Thompson (Steffe and Thompson 2000 p 268-269), the experience of understudies' learning permits the scientist to ask the understudies' mathematical realities [5][6].

II. Literature survey

According to *Punie Y. (2007)* introduced and talked about a portion of the structure blocks in the process for learning spaces, which have been driven yet not controlled by information and communication technology (ICT). It is discovered that there is a requirement for change and that the requirement for another vision of learning in the information based society should be all encompassing. There is a sub-area on innovative patterns and a sub-segment on friendly patterns and difficulties, some of which are conventional and others are explicit to learning and schooling. These patterns and drivers shape the learning spaces vision. *Lipponen L. (1999)* portrayed the difficulties for PC upheld collective learning in rudimentary and auxiliary school to plan understudies for arising information society. The contextual investigation was led in two rudimentary classes. The examination of the review demonstrates that to use to data and correspondence innovation (ICT) in ordinary schools, a few difficulties must be met. *Pelgrum .W.J. (2001)* zeroed in on the impression of instructive professionals in regards to obstructions that truly hinder the acknowledgment of information and communication technology (ICT) related objectives of the schools. It was seen that much under entirely good conditions still 40% of instructive experts showed the absence of equipment which is viewed as a significant impediment in the execution of information and communication technology (ICT). *Zinhin H.M. et. al. (2010)* dissected the impact of edutainment in study hall towards understudy accomplishment. A review was led on 60 understudies of various principles, partitioned into two gatherings: test and control bunch. The gathered information was examined utilizing Statistical Package for the Social Sciences (SPSS) programming which showed 83.8 % of understudies concurred that the utilization of edutainment programming can expand understudies understanding towards that has been educated, 96.6% of the understudies showed their premium in utilizing edutainment programming in instructing and learning measure though, 94.3% of the understudies concurred that edutainment programming is appropriate to be utilized in the study hall as one of the significant instructing helps. *Cheng Y.C. (2004)* expected to report the overall endeavors of instructor schooling and advancements, repeating the developments of different

training changes. This review investigates various standards for conceptualizing educator job, instructor viability and instructor training practice. It is trusted that the introduced floods of educator instruction and related perspective changes towards data and correspondence innovation (ICT) would give an extensive geography of understanding the complicated and dynamic connections among training changes, instructor schooling and utilization of data and correspondence innovation (ICT) for forming viable techniques for proficient turn of events and practice with data and correspondence innovation (ICT) for instruction. As per Kumar V. et.al. (2003) inspects about the commercialization of new advancements in India. This paper presents disclosures of field research endeavored by the makers to focus on the new advancement commercialization in India. The accentuation was on the limits that influenced the decision as for commercialization of new advancements in the country. Kaushilk P.D. et.al. (2004) elucidates the responsibility of information advancement for far reaching educational new development. Two nonstop exercises intend to give information advancement based organizations to rural people in India were discussed. Devi L.P. et.al. (2008) analyzes about the congruity, troubles and radical change with the usage of information and communication technology (ICT) in guidance. This paper presents the investigations wherein the information and communication technology (ICT) encourages one more horizon in learning conditions for teachers and understudies. Kharade J. et.al. (2011) looks at the high level detachment circumstance, diverse information and communication technology (ICT) drives and the huge challenges and the basic courses of action in spreading over the automated parcel in India.

III. Data Collection and Analysis

The current research work deals with the analysis of fluency of perspective teachers and students of technical education. The present work deals with the various education colleges and engineering institutions of Punjab state.

A. Fluency: The analysis of fluency of the perspective teachers and students of technical education of Punjab shows that 38% of the respondents of controlled group (n=502) comes under the category of high achievers (HA), whereas only 14% of the respondents of uncontrolled group (n=96) comes under the category of high achievers (HA). The 46% of the respondents of controlled group comes under the category of medium achievers (MA), and 40% of the respondents of uncontrolled group come under the category of medium achievers (MA). Only 15% of the respondents of

controlled group come under the category of low achievers (LA), whereas 44% of the respondents of uncontrolled group come under the category of low achievers (LA). It is inferred from the computed results that the use of information and communication technologies (ICT) plays a key role in improving the Fluency of the perspective teachers and students of technical education of Punjab State. The calculated values of Chi-Square analysis (Chi-Square=44, Table Value=5 and df=2) have demonstrated that the use of information and communication technologies (ICT) has a significant effect on Fluency of the perspective teachers and students of technical education of Punjab State. Table 1.1 shows the Chi-Square cross tabulation of fluency of the perspective teachers and students of technical education of Punjab State. Table 1.2 shows the results of Chi square analysis analyzed through statistical package for the social sciences (SPSS) 16.0. Figure 1.1 shows the bar chart indicating the response of High, Medium and Low achievement groups in fluency of the perspective teachers and students of technical education for uncontrolled and controlled group of Punjab state.

Table 1.1 Chi-Square Cross tabulation of Fluency of perspective teachers and students of technical education of Punjab

		ACHIEVEMENT			Total	
		1_HI GH	2_MEDI UM	3_LO W		
GROUP	CONTROLLED	Count	192	231	79	502
		Expected Count	172.9	226.7	102.4	502.0
	UNCONTROLLED	Count	14	39	43	96
		Expected Count	33.1	43.3	19.6	96.0
Total		Count	206	270	122	598
		Expected Count	206.0	270.0	122.0	598.0

B. Flexibility: The analysis of flexibility of the perspective teachers and students of technical education of Punjab shows that the 39% of the respondents of controlled group (n=502) come under the category of high achievers (HA), whereas only 19% of the respondents of uncontrolled group (n=96) come under the category of high achievers (HA). The 41% of the respondents of controlled group come under the category of medium achievers (MA), and 29% of the respondents of uncontrolled group come under the category of medium achievers (MA). Only 19% of the respondents of controlled group come under the category of low achievers (LA), whereas 51% of the respondents of uncontrolled group come under the category of low achievers (LA). It is inferred from the computed results that the use of information and communication technologies (ICT) plays a key role in improving the Flexibility of the perspective teachers and students of technical education of Punjab State. The calculated values of Chi-Square analysis (Chi-Square=45, Table Value=5 and df=2) has demonstrated that the use of information and

Table 1.2 Chi-Square Crosstabulation of flexibility of perspective teachers and students of technical education of Punjab

		ACHIEVEMENT			Total	
		1_HIGH	2_MEDIU M	3_LOW		
GROU P	CONTROLLED	Count	198	208	96	502
		Expected Count	182.2	198.1	121.7	502.0
	UNCONTROLLED	Count	19	28	49	96
		Expected Count	34.8	37.9	23.3	96.0
Total		Count	217	236	145	598
		Expected Count	217.0	236.0	145.0	598.0

Communication technologies (ICT) have a significant effect on Flexibility of the perspective teachers and students of technical education of Punjab State. Table 1.2 shows the cross tabulation of flexibility of the perspective teachers and students of technical education of Punjab State. Table 4.4 shows the results of Chi square analysis analyzed through statistical package for the social sciences (SPSS) 16.0. Figure 1.1 shows the bar chart indicating the response of High, Medium and Low achievement groups in flexibility of the perspective teachers and students of technical education for uncontrolled and controlled group of Punjab state.

Table 1.3 Chi-Square Analysis of flexibility of perspective teachers and students of technical education of Punjab

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	45.508 ^a	2	.000
Likelihood Ratio	40.663	2	.000
No of Valid Cases	598		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.28.

Figure 1.1 shows the graphical response of information and communication technology (ICT) on Flexibility of perspective teachers and students of technical education of Punjab for controlled and uncontrolled group comprising of 502 and 96 students respectively.

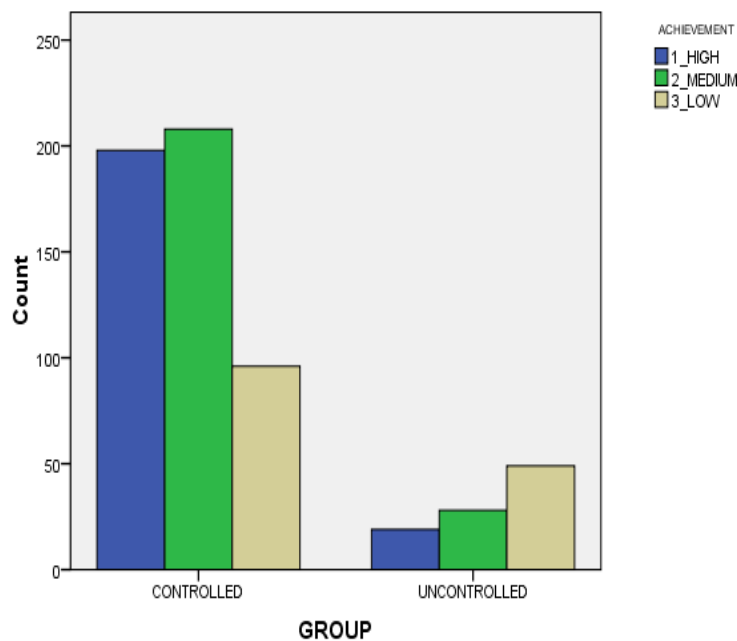


Figure 1.1 Bar Chart of flexibility of perspective teachers and students of technical education of Punjab

It is inferred from the bar chart that 198 students came under the category of high achievers (HA), 208 students came under the category of medium achievers (MA) and 96 students came under the category of low achievers (LA) out of 502 students of controlled group comprising of perspective teachers and students of technical education of Punjab. On the divergent side, 19 students came under the category of high achievers (HA), 28 students came

under the category of medium achievers (MA) and 49 students came under the category of low achievers (LA) out of 96 students of uncontrolled group comprising of perspective teachers and students of technical education of Punjab.

Bar Chart of flexibility of perspective teachers and students of technical education of Punjab

It is inferred from the bar chart that 198 students came under the category of high achievers (HA), 208 students came under the category of medium achievers (MA) and 96 students came under the category of low achievers (LA) out of 502 students of controlled group comprising of nmj perspective teachers and students of technical education of Punjab. On the divergent side, 19 students came under the category of high achievers (HA), 28 students came under the category of medium achievers (MA) and 49 students came under the category of low achievers (LA) out of 96 students of uncontrolled group comprising of perspective teachers and students of technical education of Punjab.

C. Originality: The analysis of Originality of the perspective teachers and students of technical education of Punjab shows that the 25% of the respondents of controlled group (n=502) come under the category of high achievers (HA), whereas only 15% of the respondents of uncontrolled group (n=96) come under the category of high achievers (HA). The 42% of the respondents of controlled group come under the category of medium achievers (MA), and 28% of the respondents of uncontrolled group come under the category of medium achievers (MA). Only 32% of the respondents of controlled group come under the category of low achievers (LA), whereas 56% of the respondents of uncontrolled group come under the category of low achievers (LA). It is inferred from the computed results that the use of information and communication technologies (ICT) plays a key role in improving the Originality of the perspective teachers and students of technical education of Punjab State. The calculated values of Chi-Square analysis (Chi-Square=20, Table Value=5 and df=2) has demonstrated that the use of information and communication technologies (ICT) has a significant effect on Originality of the perspec

Table 1.4 Chi-Square Crosstabulation of Originality of the perspective teachers and students of technical education of Punjab

		ACHIEVEMENT				
		1_HIGH	2_MEDIU M	3_LOW	Total	
GROUP	CONTROLLED	Count	126	214	162	502
		Expected Count	118.4	202.3	181.3	502.0
	UNCONTROLLE D	Count	15	27	54	96
		Expected Count	22.6	38.7	34.7	96.0
Total		Count	141	241	216	598
		Expected Count	141.0	241.0	216.0	598.0

teachers and students of technical education of Punjab State. Table 1.4 shows the cross tabulation of Originality of the perspective teachers and students of technical education of Punjab State. Table 1.5 shows the results of Chi square analysis analyzed through statistical package for the social sciences (SPSS) 16.0. bar chart indicating the response of High, Medium and Low achievement groups in Originality of the perspective teachers and students of technical education for uncontrolled and controlled group of Punjab state.

Table 1.5 Chi-Square Analysis of Originality of the perspective teachers and students of technical education of Punjab

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.104 ^a	2	.000
Likelihood Ratio	19.351	2	.000
N of Valid Cases	598		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.64.

Figure 1.2 shows the graphical response of information and communication technology (ICT) on Originality of perspective teachers and students of technical education of Punjab for controlled and uncontrolled group comprising of 502 and 96 students respectively.

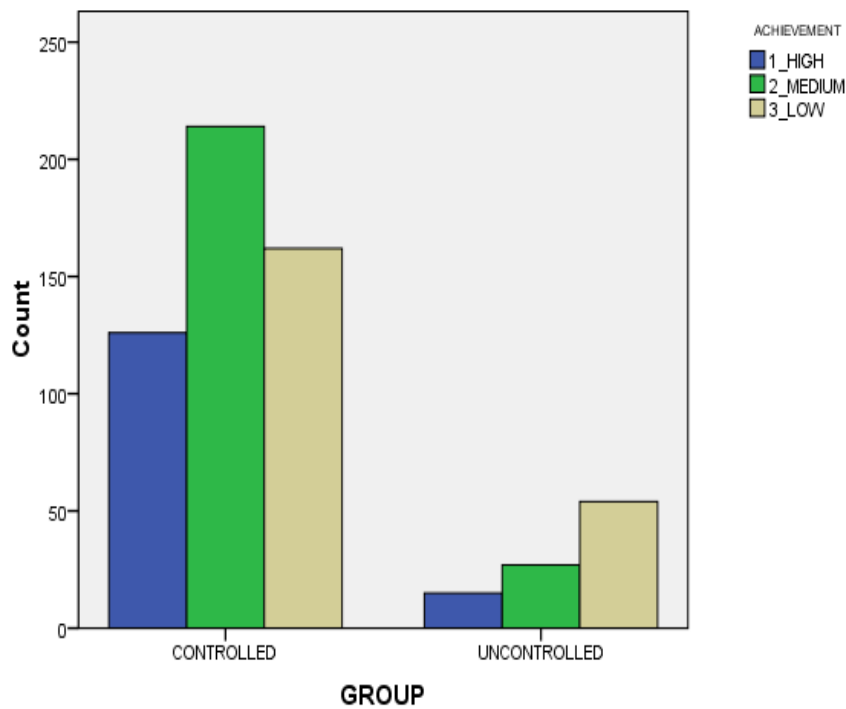


Figure 1.2 Bar Chart of Originality of the perspective teachers and students of technical education of Punjab

It is inferred from the bar chart that 126 students came under the category of high achievers (HA), 214 students came under the category of medium achievers (MA) and 162 students came under the category of low achievers (LA) out of 502 students of controlled group comprising of perspective teachers and students of technical education of Punjab. On the divergent side, 15 students came under the category of high achievers (HA), 27 students came under the category of medium achievers (MA) and 54 students came under the category of low achievers (LA) out of 96 students of uncontrolled group comprising of perspective teachers and students of technical education of Punjab.

D. Creativity: The analysis of Creativity of the perspective teachers and students of technical education of Punjab shows that the 29% of the respondents of controlled group (n=502) come under the category of high achievers (HA), whereas only 10% of the respondents of uncontrolled group (n=96) come under the category of high achievers (HA). The 52 % of the respondents of controlled group come under the category of medium achievers (MA), and 36% of the respondents of uncontrolled group come under the category of medium achievers (MA). Only 18% of the respondents of controlled group come under the category of low achievers (LA),

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whereas 53% of the respondents of uncontrolled group come under the category of low achievers (LA). It is inferred from the computed results that the use of information and communication technologies (ICT) plays a key role in improving the Creativity of the perspective teachers and students of technical education of Punjab State. The calculated values of Chi-Square analysis (Chi-Square=55, Table Value=5 and df=2) has demonstrated that the use of information and communication technologies (ICT) has a significant effect on Creativity of the perspect-

Table 1.6 Chi-Square Crosstabulation of Creativity of the perspective teachers and students of technical education of Punjab

		ACHIEVEMENT			
		1_HIGH	2_MEDIU M	3_LOW	Total
GROUP CONTROLLED	Count	147	262	93	502
	Expected Count	131.8	249.3	120.9	502.0
UNCONTROLLED	Count	10	35	51	96
	Expected Count	25.2	47.7	23.1	96.0
Total	Count	157	297	144	598
	Expected Count	157.0	297.0	144.0	598.0

-ive teachers and students of technical education of Punjab State. Table 4.7 shows the crosstabulation of Creativity of the perspective teachers and students of technical education of Punjab State. the results of Chi square analysis analyzed through statistical package for the social sciences (SPSS) 16.0. Figure 1.2 shows the bar chart indicating the response of High, Medium and Low achievement groups in Creativity of the perspective teachers and students of technical education for uncontrolled and controlled group of Punjab state.

Table 1.7 Chi-Square Analysis of Creativity of the perspective teachers and students of technical education of Punjab

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	55.005 ^a	2	.000
Likelihood Ratio	49.896	2	.000
N of Valid Cases	598		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.12.

Figure 1.4 shows the graphical response of information and communication technology (ICT) on Creativity of perspective teachers and students of technical education of Punjab for controlled and uncontrolled group comprising of 502 and 96 students respectively.

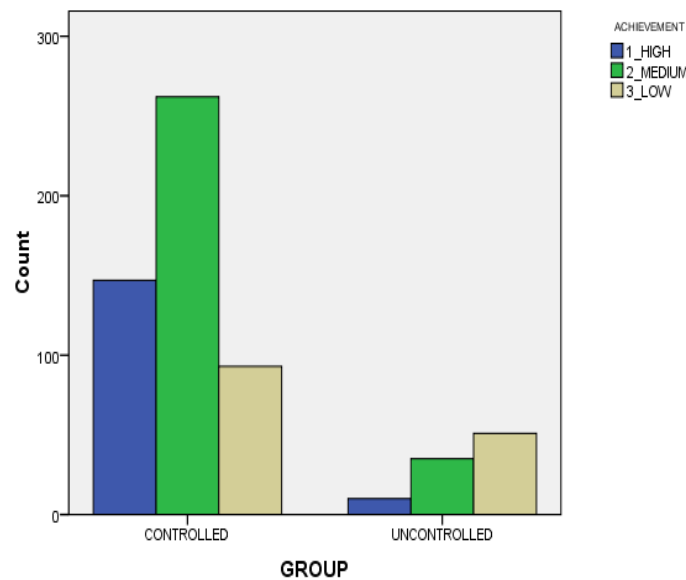


Figure 1.2 Bar Chart of Creativity of the perspective teachers and students of technical education of Punjab

It is inferred from the bar chart that 147 students came under the category of high achievers (HA), 262 students came under the category of medium achievers (MA) and 93 students came under the category of low achievers (LA) out of 502 students of controlled group comprising of perspective teachers and students of technical education of Punjab. On the divergent side, 10 students came under the category of high achievers (HA), 35 students came under the category of medium achievers (MA) and 51 students came under the category of low achievers (LA) out of 96 students of uncontrolled group comprising of perspective teachers and students of technical education of Punjab.

IV. Conclusion

Information and communication technology (ICT) assumes a significant part in upgrading the personal satisfaction, including schooling. This examination work is a significant repercussion to give a proof to the powerful utilization of Information and communication technology (ICT) devices for instructive seasons. response of information and communication technology (ICT) on Flexibility of perspective teachers and students of technical education of Punjab for controlled and uncontrolled group comprising of 502 and 96 students respectively. It is inferred from the bar chart that 198 students came under the category of high achievers (HA), 208 students came under the category of medium achievers (MA) and 96 students came under the category of low achievers (LA) out of 502 students of controlled group comprising of perspective teachers and students of technical education of Punjab.

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