

## ICT BASED APPROACHES ON FLUENCY AND FLEXIBILITY OF TECHNOLOGICAL STUDENTS AND PERSPECTIVE TEACHERS OF PUNJAB

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### Abstract

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*Education might be the biggest piece of victorious establishment to rise out of the modern age. 20th century countries have flourished for the explanation that they distinguished and utilized viable procedures for instruction and work of the all inclusive community. The world is evolving. Innovation makes us more brilliant. In today's instructional method, innovation isn't just a instrument, yet additionally an asset for getting to data. For quite a while, new ways have been utilized to innovation into learning measure. This paper manages the basic impact on inventiveness with teaching method through data and correspondence innovation instruments.*

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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 audit starts with a foundation of utilization of PC and it's fringe as an instructive device, then, at that point addresses the reasoning for instructive innovation, trailed by conversation on discoveries of flow research on public and global level on the effect of data and communication technology (ICT) tools in educational domain. This prompts survey the effect of data and communication technology (ICT) instruments on inventiveness and accomplishment capacity of the understudies. This survey looks to inspect and comprehend

the technique utilized by specialists to examine the effect of data and communication technology (ICT) on learning. The discoveries from these examination studies will assist with assessing the viability of data and communication technology (ICT) on imagination and accomplishment of the understudies. Education lays the foundation for the fulfillment of a person's dreams and aspirations. It is the process of gaining knowledge, inculcating forms of proper conduct and acquiring technical competency, 'Cultivate' and 'civilize' are synonyms to the word 'educate' [1].

The computers provide an interactive audio-visual media through power point presentations and animation software's. The visual effects provided by animation and presentation software, enhances the interest of the students. On the other hand, web is a huge information base. Internet is revolutionizing education, [2] The internet, a global network connecting millions of computers and computer users, is a new resource of educators. Globalization is a worldwide phenomena by which the world comes together to share the information. In educational globalization, internet provides upto date information of a variety of classroom related topics unavailable from other sources [3]. The Definition The flexibility of a mathematical conception constructed by a person is the designation of all the changes of perspective and all the changes between different representations the person can manage within this conception [4]. According to L. P. Steffe and P. W. Thompson (Steffe & Thompson 2000 p 268-269), the experience of students' learning allows the researcher to inquire the students' mathematical realities [5][6].

## **II. Information Technology**

Information technology is the acquisition, processing, storage and dissemination of vocal, pictorial, textual, numerical information by a micro-electronic based combination of computing and telecommunications. Communication, the exchange of ideas, has become faster, easier and more efficient due to advances in technology. Information technology plays a critical role in using technology to communicate. Technology based communication involves computer software and hardware, web application and operating systems. There is a possibility of implementation a variety of educational technologies and learning theories, such as social constructivism, and new student-centered pedagogical practices on educational campuses and their use by faculty members [7]. in Fluency New representations give scientists the ability to view disciplinary ways of knowing in new ways. These specialized functions of representations have been discussed and categorized [8][9].

### III. METHODOLOGY OF STUDY

The study analyzes the comparative impact of use of information and communication technologies (ICT) on creativity and achievement of students of technical education and perspective teachers. The sampled technological and educational institutions were divided into controlled and uncontrolled groups. The survey method was method to analyze the impact of this research study. The controlled group was administered by the model based and learning based information and communication technology (ICT) techniques. Model based information and communication technology (ICT) was used by demonstrating the students by video clippings and animations for the analysis of creativity.

### IV. Literature Survey

**Maheshwari A. (2010)** discusses information and communication technology (ICT) as a boon for quality enhancement in teacher education. The various objectives regarding quality improvement with information and communication technology (ICT) were discussed. The three dimensions of education: Firstly, foundations, concepts, conceptual skills, Secondly, professional competence and maturity and finally the interpersonal skills, responsibility and accountability were discussed [10].

**Walia. K. (2004)** gives an overview of number of schools, teachers, teacher educators, teacher education institutions about the reform of teacher education using information and communication technology (ICT) in Asia Pacific in the new millennium. The research reviewed that the percentage of trained teachers in schools is around 90% whereas more than 4.5 million teachers at regular intervals imposes heavy demands on the system., The system needs to recruit more teachers as large number of children in elementary education [11].

**Bhattacharya B. (2008)** discusses about the role of information and communication technology (ICT) in engineering education in India. This paper presents a review of some technology enhanced initiatives taken by government of India, as well as some of the leading institutions of the country, some important developments viz. national programme on technology enhanced learning (NPTEL), use of educational satellite (EDUSAT) and various other approaches like virtual classrooms and virtual laboratories were discussed. This paper also discusses some of the problems that arise in the deployment of information and communication technologies (ICT) [12].

## V. Data Collection

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				
		1_HIGH	2_MEDIUM	3_LOW	Total	
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 Cross tabulation of flexibility of perspective teachers and students of technical education of Punjab**

		ACHIEVEMENT				
			2_MEDIU			
		1_HIGH	M	3_LOW	Total	
GROUP	CONTROLLED	Count	198	208	96	502
		Expected Count	182.2	198.1	121.7	502.0
	UNCONTROLLE D	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

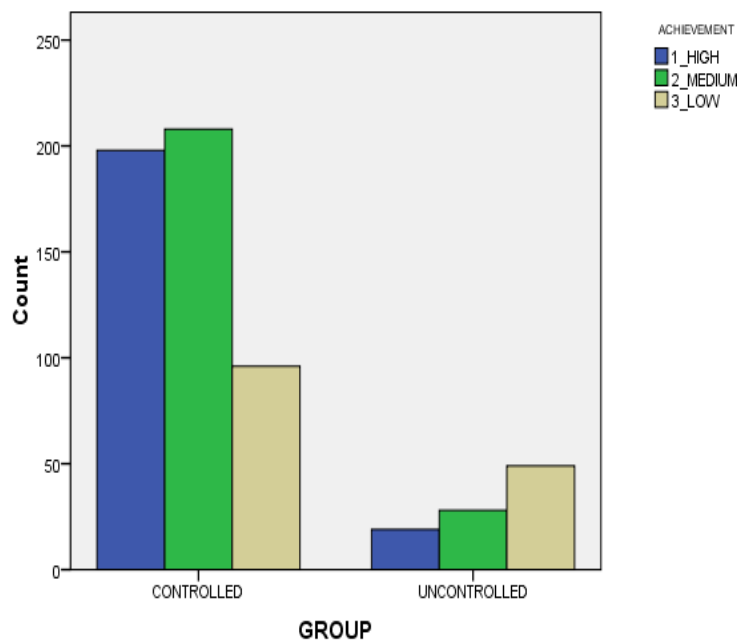
Communication technologies (ICT) have a significant effect on Flexibility of the perspective teachers and students of technical education of Punjab State. Table 1.2 shows the cross tabulation of flexibility of the perspective teachers and students of technical education of Punjab State. the results of 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 <sup>a</sup>	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

#### VI. 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. It is inescapable that utilization of Information and communication technology (ICT) for education seasons can upgrade student's imagination. The Chi-Square insights produce the proof of the powerful utilization of Information and correspondence. Information and communication technology (ICT) in upgrading the imagination of the point of view instructors and understudies of specialized schooling. response of information and communication technology (ICT) on Flexibility of perspective teachers and students of technical education of Punjab for controlled and

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