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# Implementation of ICT at School Scheme: A Case Study

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**ABSTRACT**

Indian education system is governed by Ministry of Human Resource Development (MHRD) at center and by various departments at the states. A significant amount of fund is allocated for usage of technology in education under key Government schemes. Schemes such as ICT @ Schools have potential for fostering academic growth and upgrading skills of students, which help immensely in their future employability. Several such schemes exist which pertain to technology in education and executed either directly by the state or through private entities. A policy for implementation of ICT was thought out and designed at national level. One of the UT, Jammu and Kashmir has significant ICT-related interventions in education system through e -content delivery and ICT based teachers' training and monitoring. The current research study evaluates the ICT policy and assesses its implementation at School level in terms of effectiveness towards mass education of the UT J&K. It recommends suitable measures for improvement in monitoring, implementation based on outcomes of the survey.

**Keywords:** ICT Scheme, Fund allocation, Fund utilization, Infrastructure, Teacher training, e Content, policy implementation

## INTRODUCTION

The United Nations' Millennium Development Goals (MDGs) has stressed upon the technology based education for the learners of 21st century. The National Policy on Education 1986, as modified in 1992, stressed the need to employ educational technology to improve the quality of education. The policy statement led to two major centrally sponsored schemes, namely, Educational Technology (ET) and Computer Literacy and Studies in Schools (CLASS) paving the way for a more comprehensive centrally sponsored scheme – Information and Communication Technology @ Schools in 2004. Educational technology also found a significant place in another scheme on up gradation of science education. The significant role ICT can play in school education has also been highlighted in the National Curriculum Framework (NCF) 2005.

Use of ICT for quality improvement also figures in Government of India's flagship programme on education, Sarva Shiksha Abhiyan (SSA) and Rastriya Madhyamik Siksha Abhiyan (RMSA). Again, ICT has figured comprehensively in the norm of schooling recommended by the Central Advisory Board of Education (CABE), in its report on Universal Secondary Education, in 2005. With the convergence of

technologies, it has become imperative to take a comprehensive look at all possible information and communication technologies for improving school education in the country. The comprehensive choice of ICT for holistic development of education can be built only on a sound policy. The initiative of ICT Policy in School Education is inspired by the tremendous potential of ICT for enhancing outreach and improving quality of education. This policy endeavors' to provide guidelines to assist the States in optimizing the use of ICT in school education within a national policy framework.

The scheme of Educational Technology (ET) was started in 1972 during the IV Plan. Under the scheme 100% assistance was given to 6 State Institutes of Educational Technology (SIET) and the States/UTs were assisted for procurement of radio cum cassette players and color TVs. Further, in recognition of the importance of role of ICT in education, the Computer Literacy and Studies in Schools (CLASS) Project was introduced as a pilot project in 1984-85 with the use of BBC micros. The project was adopted as a Centrally Sponsored Scheme during the 8th Plan (1993-98) and its scope was widened to provide financial grants to educational institutions and also to cover new Government and Government aided secondary and higher secondary schools.

The revised Scheme of Information and Communication Technology (ICT) @ Schools was introduced by the Govt. of India in 2009. The scheme provided 10 computers, scanners, printers, educational software, etc. to introduce and promote computer literacy across schools in different states of the country. The reason for introducing the scheme was to address the huge disparity in India in Information Technology (IT). The ICT scheme therefore proposed to open new vistas of learning and bridge the socioeconomic and geographic divide across the country with respect to Information Technology and provide a level playing field to rural as well as metropolitan students.

**ICT @SCHOOL SCHEME IN JAMMU**

Jammu and Kashmir is a multi-lingual, multi religious and multi-racial state covering an area of 222,236 Sq. Km. The state is administratively divided into three regions: Jammu, the Kashmir valley and Ladakh with 22 districts. It shares borders with Himachal Pradesh and Punjab, and the neighboring countries of Pakistan, China and Afghanistan. Urdu, Kashmiri and Dogri are the official languages of the state. Hindi, Pahari and Ladakhi are also spoken in some parts of the state. The literacy rate of the state is 68.74% (Male literacy rate: 78.26 and Female literacy rate: 58.01) as per census 2011.Globalization has changed the rationale and direction of education. According to Teichler (2004), globalization assumes a blurring of borders and national systems of education. Technological advancements have caused vital changes in many domains of societal and individual life. Growth of information and communication technology brought about swift changes in school education. Technological innovations have played a pivotal role in improving teaching and learning in light of educational reforms around the globe (Kahveci, Sahin and Genc, 2011). Technological developments results in the conviction that the integration of Information and Communication Technologies into learning interaction may bring about a new era in the educational practice (Tsikalaki&Valatidis, 2010).

Education is on top priority of the government of Jammu and Kashmir and the educational progress is the main concern of the state government but it is still lagging behind in the deployment of innovations like ICT in education. Department of School Education and Literacy Ministry of Human

Resource Development government of India launched the Centrally Sponsored ICT@ Schools Scheme in December2004, and modified in 2010 with a mission to endorse computer enabled learning and usage of ICT in teaching. The scheme is run by the states with funding support from the Ministry of Human Resources Development government of India. The policy aimed at providing opportunities to secondary stage students to build their competence on ICT skills and make them learn through computer aided learning process. ICT has revolutionized all including education. It has the power to change the daily practices of teachers.ICT has radically changed the pattern of teaching and learning. It has also changed the roles played by both teachers and students. According to Dawes (2001) Information and Communication Technology has the power to support teaching and learning, and provide innovative approaches for doing the required work in a way that was never possible before. The Centrally Sponsored Information and Communication Technology (ICT) @ School.

The PAB was informed that till date 200 schools were approved in 2007-08 but the state couldn't implement the scheme. State informed PAB in 2013-14 that it was facing problem to implement the scheme. Since the money released to J&K in 2008-09 was for carrying out the activities then and since more than 6 years have lapsed the financial sanction lapsed. It was then agreed by the state for cancellation of 200 schools (Rs in lakh the cancellation order of which was issued in December 2013)

| **Number of Schools Sanctioned under Centrally Sponsored Scheme of ICT in Schools in Jammu and Kashmir (As on 31.03.2009)** | | |
|---|---|---|
| **State** | **School sanctioned for coverage** | **Mode of implementation** |
| Jammu and Kashmir | 200 | Outright purchase |

Source : Ministry of Human Resource Development Govt. of India (10918)

| **Year** | **Model** | **No. Of School** | **Budget Approved (In Lakhs)** | **GOI Share (In Lakhs)** | **Year Wise Released 2007-08 (In Lakhs)** | **Total Pending** | **Pending For 2013-14** |
|---|---|---|---|---|---|---|---|
| 2008-09 | OP | 200 | 1340.00 | 1206.00 | 603.00 | 0 | 0 |
| **Total** | **-** | **200** | **1340.00** | **1206.00** | **603.00** | **0** | **0** |

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**OBJECTIVES OF THE STUDY**

1. To assess the effectiveness of scheme related to:- ➢Fund allocation.
   - Fund utilization.
   - Infrastructure.
   - E-content dealing.
   - Teacher training.
2. To suggest some recommendations observed on the results

## RESEARCH QUESTIONS

1. To what extent the ICT@ school scheme is effective in Jammu related to following problems:-
   - Fund allocation.
   - Fund utilization.
   - Infrastructure.
   - E-content dealing.
   - Monitoring and evaluation
2. What are some suggestions and recommendations for effective implementation of the ICT @school scheme?

## DELIMITATIONS OF THE STUDY

1. The present study was geographically delimited to secondary schools of Samba district.
2. The present study had considered only heads of schools, teacher and students.

## REVIEW OF RELATED LITERATURE

According to **Kaliammal, A. (2005),** ICT refers to technology that provides access to information through telecommunication.

**Wee &Zaitun(2006)** Highlighted the obstacles in the adaptation of ICT tools in teaching & learning process. Newer versions of ICT tools , extra time needed for integration, poor network, and improper evaluation of ICT tools in teaching etc. are the major hindrances in the learning of information system in Malaysian universities. Successful implementation of ICT in higher education would help to remove these obstacles.

**Wong and Alan (2007)** conducted a study among Malaysian student teachers to assess the "Gender differences in attitude towards information technology". Results were found that gender does not have an impact on the attitudes of female nor male student teachers towards information technology when the same amount of exposure is given to both groups. There was also a significant difference is the aversion and usefulness dimensions for both genders at the end of course, an indication that the course played a role towards improving the attitudinal measurement in these two dimensions.

According to **Gurumurthy (2009)** study based on policy reviews, theoretical explorations and empirical evidence of delivery systems of CAL in Kerala and Karnataka points out that the digital medium has the capacity to allow local knowledge construction and also supports all the modes (text, audio, video).

**Krishnaveni and Meenakumari(2010)** Conducted study on the implications of ICTs in the administration in higher education in terms of general administration, financial aspects, library and personal records of staff and student's data.

**Vinayak . G. Hegde(2021)** Conducted study on a new digital initiative in virtual teaching and learning during lockdown period in India . The result indicated that online teaching and learning has drastically evolved and changed the face for modern education. Online learning is one of the most life changing innovations of the present study during pandemic times.

Jammu is yet to embark upon major ICT initiatives in School Education. There have been some ICT initiatives that are implemented across the department to address some of the pressing problems. Government of J&K has taken an initiative in the implementation of Computer Aided Learning (CAL) in school and has been recognized for these efforts". ICT@ School scheme is one major initiative of integrating ICT facilitated teaching learning scenario in the government schools of J&K.

## METHODOLOGY

**Descriptive Method:** The present study was descriptive in nature. In the present study we have analyzed the status of ICT@ school scheme in Samba district.

## TOOL USED

The tool used for data collection was self constructed from the respondents was structured questionnaire, interview schedule, checklists divided into two sections. The interview schedule contains three parts with regards to fund allocation, utility of resources and training of teachers. The questionnaire for teachers contains three sections with regards to training, fund allocation, and utility of resources. The checklist for heads of school and students contains three sections also with regards to fund allocation, utility of resources and training of teachers. In the present study, the investigator used following tools to collect the data:

- Interview Schedule for the heads of the school.
- Semi structured questionnaire for teachers.
- Check list for teacher, head and students.

## DATA COLLECTION PROCEDURE

After finalizing of the tool, the investigator visited the schools one by one and briefed the purpose of the study to the Heads, Teachers and students. Prior to the administration of the tool, heads of the school and teachers concerned were contacted and their cooperation in confidence was assured by explaining the purpose of the study. Secondary tool were giving to students for valuable feedback for crosschecking of tools. The clarifications regarding the interview, semi-structured questioning and observation were made and hence data was collected with great care and sense of responsibility.

## ANALYSIS OF INTERVIEW SCHEDULE FOR HEADS OF THE INSTITUTIONS

This section includes the item analysis of interview schedule of the heads of the institutions and is divided into three themes i.e. ., with regards to fund allocation, training of teachers, monitoring and evaluation.

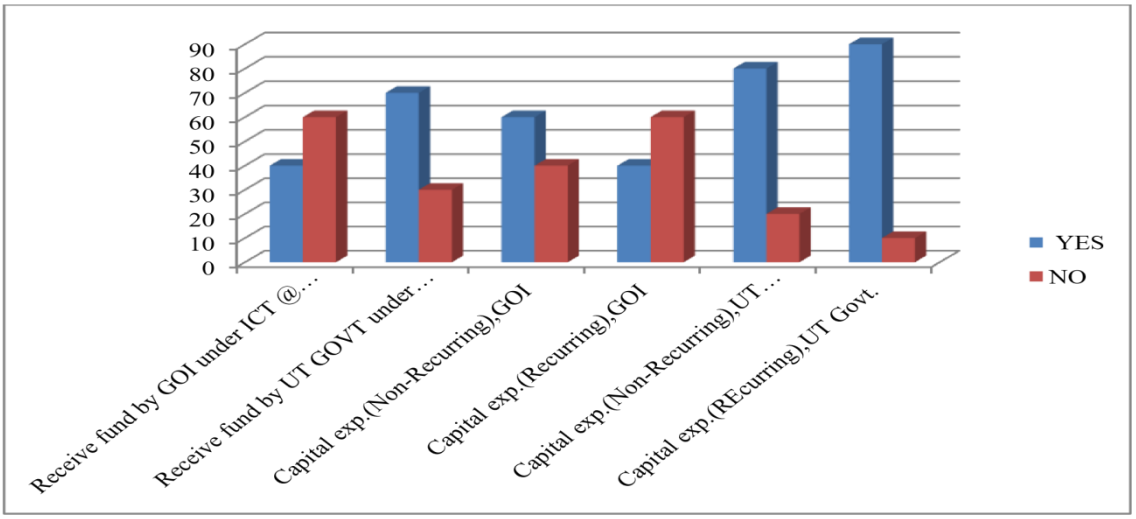
## WITH REGARD TO FUND ALLOCATION

**Table: 1**

| Item no | Item Description | Response category YES | NO |
|---|---|---|---|
| 1 | School receive fund under the ICT @ school scheme by GOI. | 3<br>30% | 7<br>70% |

| | | | |
|---|---|---|---|
| 2 | School receive fund under the ICT@ school scheme by UT Govt. | 6<br>60% | 4<br>40% |
| 3 | School got capital expenditure (non- recurring) by GOI under the scheme. | 4<br>40% | 6<br>60% |
| 4 | School got capital expenditure (recurring) by GOI under the scheme. | 4<br>40% | 6<br>60% |
| 5 | School got capital expenditure (non-recurring) by UT govt. under ICT @ school scheme. | 8<br>80% | 2<br>20% |
| 6 | School got capital expenditure (recurring) by UT Govt. under the scheme. | 9<br>90% | 1<br>10% |

**WITH REGARDS TO FUND ALLOCATION**



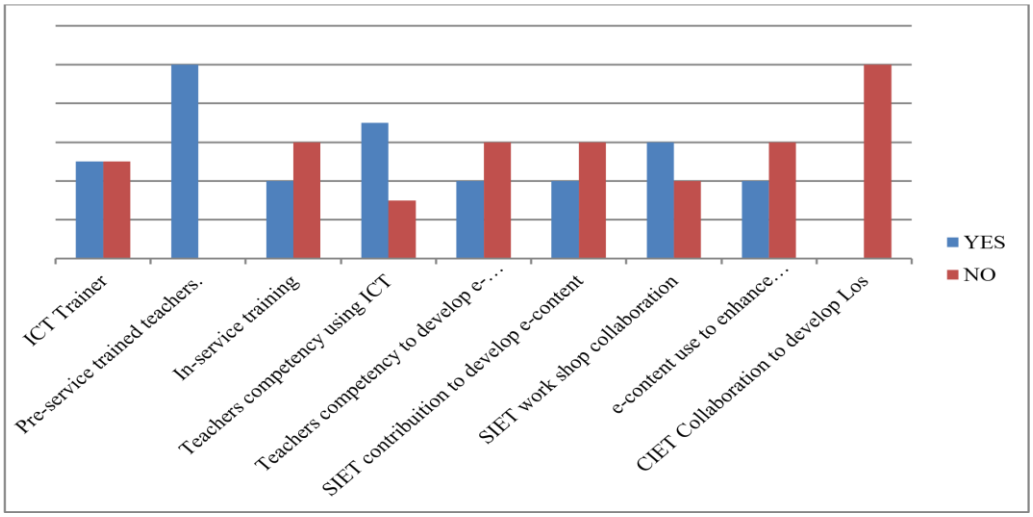

**Graph: 1 depicting the fund allocation.**

The above table 1 reflects that about 40% of Heads of institution responded positive (yes) answer and 60% of response negative (No) for receiving fund by Central Govt. (GOI). Whereas 70% of Heads of institution responded yes (positive) and 30 % responded No (negative) for receiving fund by UT Govt. About 60% of Heads of institution responded positive and 40% responded negative with regard to receiving capital expenditure (Nonrecurring). Also, around 70% responses stand positive and 30% responses stands negative for receiving capital expenditure (recurring) by GOI. Majority of the respondents i.e., around 80% of the Heads of institution responded positive and 20% responded negative for receiving capital expenditure (Non-recurring), whereas, about 90% responded positive and 10% responded negative for receiving capital expenditure (recurring) by UT Govt. for the implementation of the ICT scheme.

**WITHREGARDS TO TRAINING OF TEACHERS**

**Table: 2**

| Item No. | Item Description | Response category YES | NO |
|---|---|---|---|
| 1 | Availability of ICT trainer to provide training for teachers. | 5 (50%) | 5 (50%) |
| 2 | Availability of pre-service trained teachers. | 10 100% | -- -- |
| 3 | Provide in-service training to teachers regarding ICT. | 4 40% | 6 60% |
| 4 | Are teachers competent enough to use ICT in classrooms? | 7 70% | 3 30% |
| 5 | Are teachers competent enough to develop Econtent? | 4 40% | 6 60% |
| 6 | Strengthening of SIET to contribute E-content development. | 4 40% | 6 60% |
| 7 | Collaborating with SIET for organizing workshop for teachers regarding ICT. | 6 60% | 4 40% |
| 8 | Use of appropriate E-content to enhance the comprehension levels of students in various subjects. | 4 40% | 6 60% |
| 9 | Collaboration of CIET with school to develop E-content and learning objectives (LOS). | -- -- | 10 100% |




**Graph: 2representing the data regarding to training of teachers.**

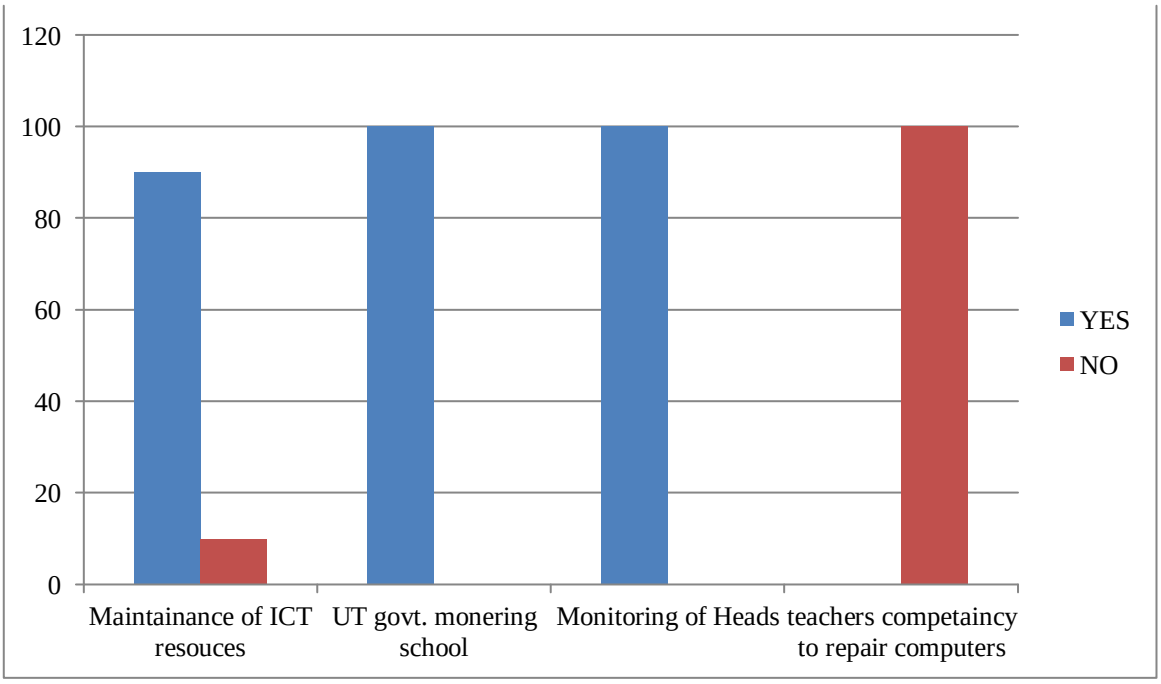
The above table 2 reflects that about 50% of the schools have ICT trainers to train the teachers regarding ICT whereas around 50% don't have ICT trainers in their schools to train School teachers. It is quite interesting to reveal that almost all i.e., around 100% schools have availability of Pre-Service trained teachers. With regard to providing In- Service training to school teachers, around 40% of the Head of Institutions responded yes, that they provided training to teachers whereas around 60% responded no for providing in-service training to teachers. With regard to competency of teachers using ICT in classroom 70% of response is in positive and 30% of response is in negative. Pertaining to Developing e-content, about 40% responded positively and 60% responded negatively that they don't feel competent enough to develop e-content. With regard to SIET contribution for developing e-content, 40% of response was positive and 60% were negative. Around 60% of the respondents agreed yes that they collaborate with SIET for organizing workshops for providing ICT training to teachers whereas 40% responded no, that they don't collaborate with SIET for such organization of workshop for teachers. With regard to Using e-content to enhance comprehension level of students 40% responded positive and 60% responded negative. It is also quite shocking to revealed that majority i.e., around 100% of the schools responded no regarding the Collaboration of CIET to develop e-contents and learning Objectives (Los).

**WITH REGARDS TO MONITORING AND EVALUATION**

**Table: 3**

| Item no. | Item Description | Response category YES | NO |
|---|---|---|---|
| 1 | Properly maintenance of ICT resources by School Management | 9<br>90% | 1<br>10% |
| 2 | UT Govt. monitoring the school time to time. | 10<br>100% | --<br>-- |
| 3 | Head of the school regular monitoring and evaluation of teachers and ICT equipments. | 10<br>100% | --<br>-- |
| 4 | Competency of teachers to repair and maintenance of ICT lab and computers when it's not working. | --<br>-- | 10<br>100% |

**WITH REGARDS TO MONITORING AND EVALUATION**




**Graph: 3 representing the data pertaining to monitoring and evaluation .**

The above table 1 to 3 reflects that majority of the respondents i.e., around 90% of heads of institution responded positive for regularly maintaining the ICT resources and a small proportion i.e., 10% of responded negative for not maintaining the ICT resources. It is quite interesting to highlight that majority of the respondents i.e., about 100% responded yes for regular monitoring and evaluating the teachers and ICT equipments. On the contrary, majority i.e., around 100% of Heads of institution responded a big no for not having the competency among the teachers to repair and maintain ICT labs.

It was analyzed that the Heads of the schools are not much aware about ICT@ School scheme and also not much aware about implementation of ICT but they have positive attitude towards the integration of ICT in education. The receipt of support from the UT Govt. is with delays leading to problems in the implementation of the scheme. Majority of heads of institutions denied getting fund by GOI and responded positive to receive fund by UT govt. but the report of SAMAGRA the fund was released to the schools in the year 2016. The training of teachers is not given yet after implementation of the scheme. Lack of pre-service and inservice trained teachers in all schools was calculated. Using of proper e-content by teachers to enhance comprehension level of students is found negative(less used). It was also analyzed that Proper maintenance and evaluation of ICT labs by heads of the institution.

**ANALYSIS OF CHECK LIST FOR HEADS OF THE INSTITUTIONS**

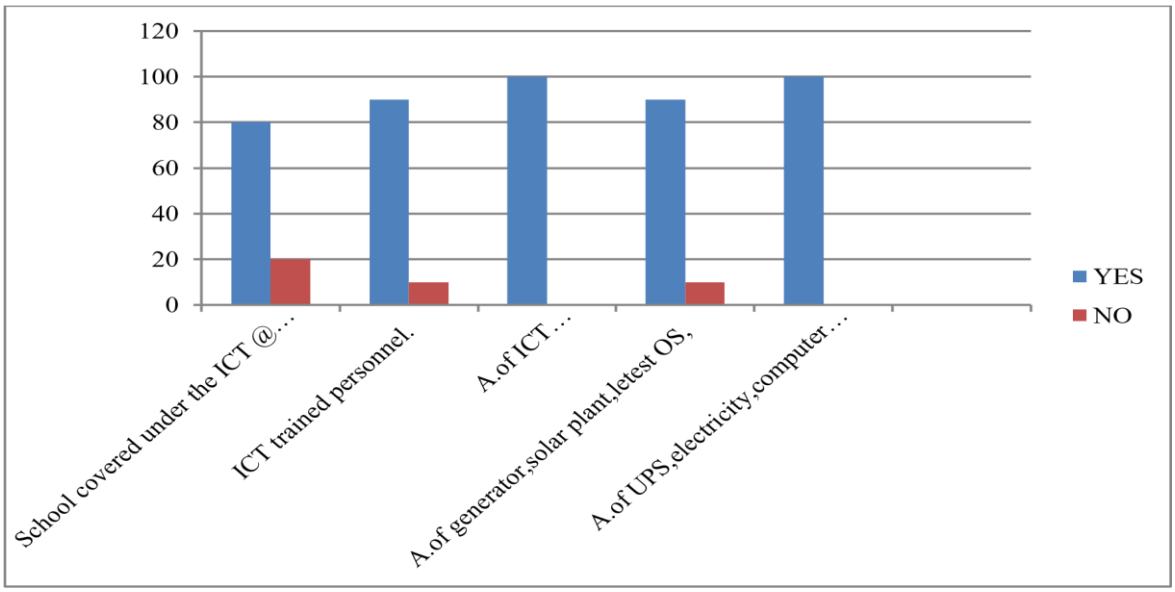
This section includes the item analysis of Check -list of the heads of the institutions and is divided into two themes i.e. ., availability of resources and infrastructure and Accessibility of resources.

## AVAILABILITY OF RESOURCES AND INFRASTRUCTURE

**Table: 4**

| Item no. | Item Description | Response Category YES | NO |
|---|---|---|---|
| 1 | School covered under the ICT @ school scheme. | 8<br>80% | 2<br>20% |
| 2 | ICT trained personnel. | 9<br>90% | 1<br>10% |
| 3 | Availability of ICT labs. | 10<br>100% | --<br>-- |
| 4 | Availability of ICT department or unit. | 10<br>100% | --<br>-- |
| 5 | Availability of ICT coordinator. | 10<br>100% | --<br>-- |
| 6 | Availability of smart classrooms. | 10<br>100% | --<br>-- |
| 7 | Availability of computers in ICT lab. | 10<br>100% | --<br>-- |
| 8 | Availability of LED/projector. | 10<br>100% | --<br>-- |
| 9 | Availability of printer. | 10 100% | --<br>-- |
| 10 | Availability of scanner. | 10 100% | --<br>-- |
| 11 | Availability of web camera. | 10 100% | --<br>-- |
| 12 | Availability of broad band /internet connectivity. | 10 100% | --<br>-- |
| 13 | Availability of generator. | 9<br>90% | 1<br>10% |
| 14 | Availability of solar plant. | 9<br>90% | 1<br>10% |
| 15 | Availability of Ups. | 10 100% | --<br>-- |
| 16 | Availability of educational software | 8<br>80% | 2<br>20% |

| | | | |
|---|---|---|---|
| 17 | Availability of latest OS in all computer And application software. | 9<br>90% | 1<br>10% |
| 18 | Availability of electricity. | 10 100% | --<br>-- |
| 19 | All computers are networked. | 10 100% | --<br>-- |
| 20 | Competency of students using computers. | 10 100% | --<br>-- |
| 21 | Teacher's competency to using computers | 10 100% | --<br>-- |




**Graph: 4 representing the data related to availability of infrastructure and resources.**

The above table 4reflects that majority of respondents i.e. around 80% of the Head of institution responded positive (YES) school under the ICT @ school scheme, while 20 % responded Negative (NO). There is 90% of heads responded positive for the availability of ICT trained personnel while very less percentage i.e., 10% responded negative. On the availability of ICT labs, ICT department or unit, ICT coordinator, smart classrooms, computers in ICT lab, LED/projector, printer, scanner, web camera, broad band /internet connectivity majority of Heads of the institution responded 100%. On availability of generator and solar plant 90 % of Heads responded positive and 10% responded negative. 100% of heads responded positive on availability of electricity and UPS. Availability of educational software 80 % of Heads responded positive while 20% responded negative, also availability of latest OS and application software in all computer majority of heads i.e. 90% responded positive whereas 10 %responded negative. 100% of heads responded positive on, All computers are networked, Competency of students using computers, Teacher's competency to using computers.

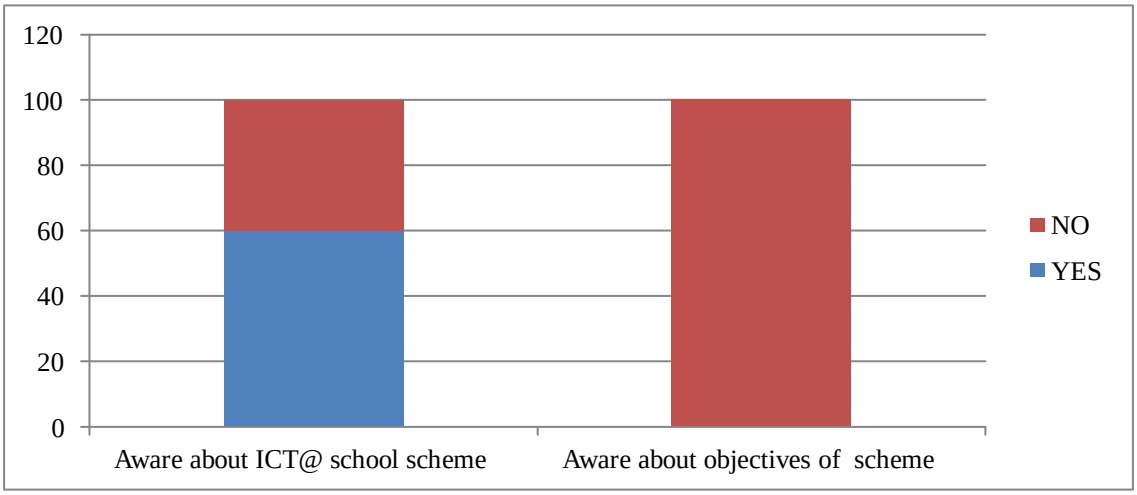
## ANALYSIS OF SEMI-STRUCTURED QUESTIONNAIRE FOR TEACHERS

This section includes the item analysis of semi-structured questionnaire for teachers and is divided into two themes i.e. ., with regards to awareness of scheme and with regards to training of teachers.

### WITH REGARDS TO AWARENESS

**Table: 5**

| Item no | Item Description | Response category YES | NO |
|---|---|---|---|
| 1 | Aware about ICT @ School Scheme | 6 60% | 4 40% |
| 2 | Aware about objectives of scheme | -- -- | 10 100% |




**Graph 5 . showing the data pertaining to awareness of teachers regarding ICT@ School Scheme.**

The above table 5 reflects that 60% of teachers responded positive for aware about ICT @ school scheme whereas 40% of responded negative. The majority of teachers i.e. 100% responded negative to aware about objectives of the scheme.

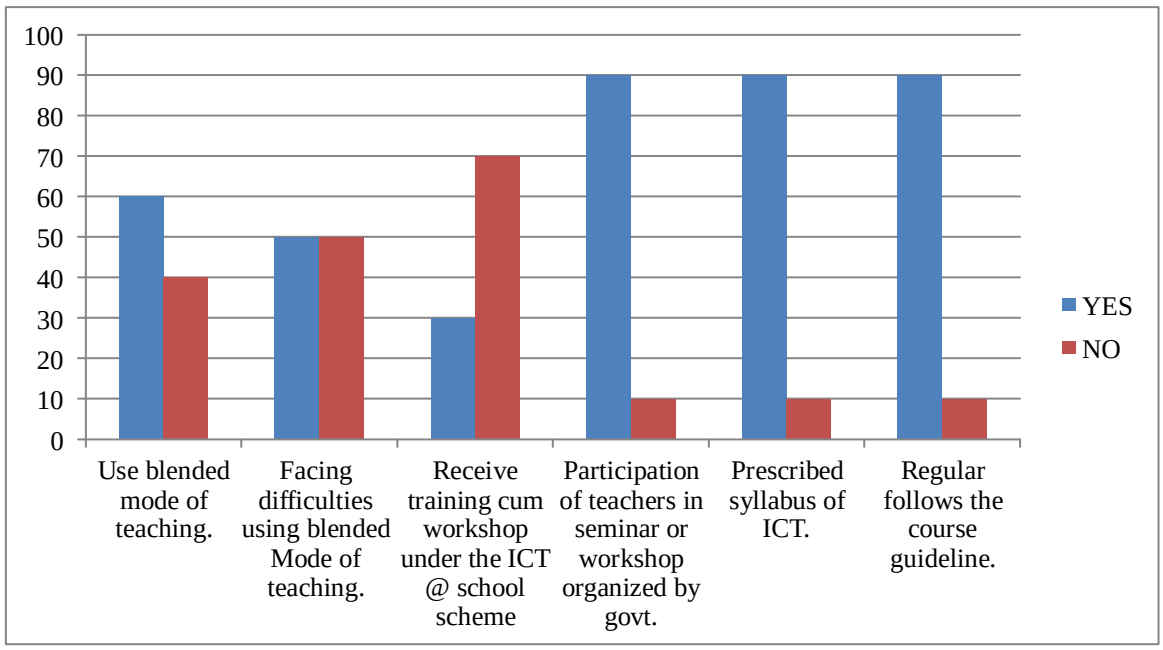
It was analyzed that the teachers are neither that much aware about ICT@ school scheme nor objectives of the scheme.

### WITH REGARDS TO TRAINING OF TEACHERS

**Table 6**

| Item no | Item Description | Response category YES | NO |
|---|---|---|---|
| **1** | Use blended mode of teaching. | 6 60% | 4 40% |
| **2** | Facing difficulties using blended Mode of teaching. | 5 50% | 5 50% |

| | | | |
|---|---|---|---|
| **3** | Receive training cum workshop under the ICT @ school scheme. | 3<br>30% | 7<br>70% |
| **4** | Participation of teachers in seminar or workshop organized by govt. | 9<br>90% | 1<br>10% |
| **5** | Prescribed syllabus of ICT. | 9<br>90% | 1<br>10% |
| **6** | Regular follows the course guideline. | 9<br>90% | 1<br>10% |
| **7** | Separate teachers for ICT. | 9<br>90% | 1<br>10% |




**Graph: 6 representing the data with regard to training of teachers.**

The above table 6 reflects that 60% of teacher responded positive for using blended mode while teaching whereas 40% responded negative. During teaching, facing of difficulties using blended mode of teaching 50% of teachers responded positive and 50% responded negative. Receive training cum workshop under the ICT @ school scheme 30% of teacher responded positive and 70% responded negative. Participation of teachers in seminar or workshop organized by govt. 90% of teachers responded positive whereas 10% responded negative. Prescribed syllabus of ICT, Regular follows the course guideline and Separate teachers for ICT majority of teachers' i.e. 90% responded positive and 10% responded negative.

It was analyzed that teachers are competent enough to use blended mode of teaching but there only one projector and smart available in ICT lab, classrooms are only with tradition boards. Prescribed

syllabus of ICT was available in most of schools. Teachers responded negative to getting any training by SIET and CIET.

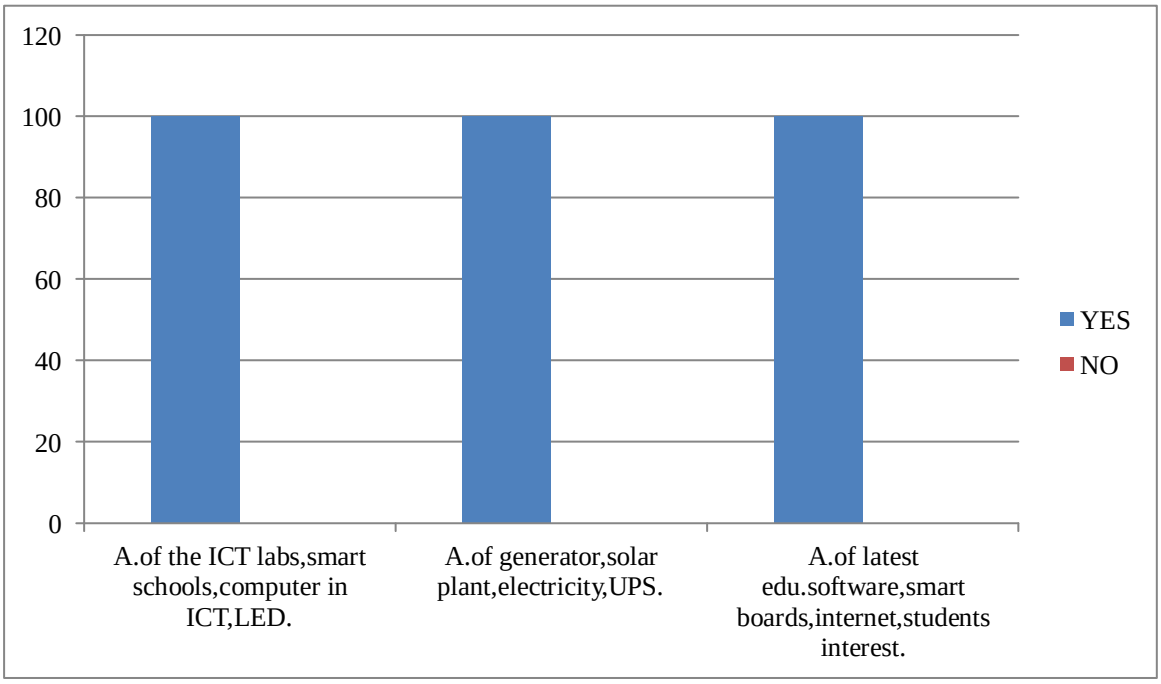
**ANALYSIS OF CHECK LIST FOR TEACHERS**

This section includes the item analysis of check list for teachers and is divided into two themes i.e. ., with regards to availability of components in ICT labs and components of ICT in the classrooms.

| Item no | Item Description | Response category YES | NO |
|---|---|---|---|
| 1 | Availability of ICT labs. | 10 100% | --<br>-- |
| 2 | Availability of smart schools. | 10 100% | --<br>-- |
| 3 | Availability of computers in ICT labs. | 10 100% | ---<br>-- |
| 4 | Availability of LED/projectors. | 10 100% | --<br>--- |
| 5 | Availability generator. | 10 100% | --<br>-- |
| 6 | Availability of solar plant. | 10 100% | --<br>--- |
| 7 | Availability of electricity. | 10 100% | --<br>-- |
| 8 | Availability of UPS. | 10 100% | --<br>-- |
| 9 | Availability of latest educational software and CDs. | 10 100% | --<br>--- |
| 10 | Availability smart boards in all class. | 10 100% | --<br>-- |
| 11 | Availability of internet connectivity. | 10 100% | --<br>-- |
| 12 | Students showing interest towards using computer | 10 100% | --<br>-- |

**Table: 7**

## ANALYSIS OF CHECK LIST FOR TEACHER




**Graph:7 showing the availability of infrastructure in ICT labs.**

The above table 7 reflects that 100% of teachers responded positive (YES) for the availability of infrastructure and components in ICT labs.

It was analyzed that schools have ICT labs only and smart classrooms are not available.

## ANALYSIS OF CHECK LIST FOR STUDENTS

This section includes the item analysis of check list for students and is divided into two themes i.e. ., with regards to availability of resources and with regards to training of teachers.

Table: 8

| Item no. | Item Description | Response category YES | NO |
|---|---|---|---|
| 1 | Availability of computer lab and ICT lab. | 120 100% | -- -- |
| 2 | Availability of computer teacher. | 120 100% | -- -- |
| 3 | Availability of LED/projector in lab and classrooms. | 120 100% | -- -- |
| 4 | Availability of separate syllabus of ICT. | 80 66.66% | 40 33.33% |
| 5 | Availability of sufficient computers for all students. | 70 58.33% | 50 41.66% |
| 6 | All computers are in working condition. | 90 75% | 30 25% |

| | | | |
|---|---|---|---|
| 7 | Internet connectivity in lab. | 100<br>83.33% | 20 16.66% |
| 8 | Students have following one of the gadgets in home (android phone, laptop, and tablet, desktop). | 120 100% | --<br>-- |
| 9 | Availability of internet connectivity of student's home. | 120 100% | --<br>-- |
| 10 | Visit computer lab for practical daily. | 10<br>8.335 | 110<br>91.66% |
| 11 | Teachers use ICT in classroom. | 30 25% | 90<br>75% |
| 12 | Teachers aware you about latest OS and application software. | --<br>-- | 120<br>100% |
| 13 | Teachers use blended mode of teaching. | --<br>-- | 120<br>100% |
| 14 | Teachers are well expert in using laptop, LED, projector in the classroom. | 20 16.66% | 100<br>83.33% |
| 15 | Teachers are competent enough to solving query ask by students related ICT. | 30 25% | 90<br>75% |
| 16 | Teachers use ICT in classroom. | --<br>-- | 120<br>100% |

The above table 8 reflects that majority of i.e.100% of students' responded positive of availability of computer lab, computer teacher and LED. Whereas on the availability of separate syllabus for ICT 66.66% responded positive and 33.33% responded negative. Availability of sufficient computers for all students the 58.33 responded positive and 41.66% responded negative. All computers are in working condition 75% of students responded positive and 25% of students responded negative. Internet connectivity in lab 83.33% of students responded positive and 16.66% responded negative. Students have following one of the gadgets in home (android phone, laptop, and tablet, desktop) and availability of internet connectivity of student's home majority of 100% students' responded positive. Visit computer lab for practical daily 8.33% of students responded positive and 91.66% negative. Teachers use ICT in classroom 25% of teachers responded positive and 75% of responded negative. Teachers aware you about latest OS and application software and teachers use blended mode of teaching the majority of students i.e. 100% of students responded negative. Teachers are well expert in using laptop, LED, projector in the classroom 16.66% of students responded positive and 83.33% of students responded negative. Teachers are competent enough to solving query ask by students related ICT 25% of students

responded positive and 75% of responded negative. Teachers use ICT in classroom the 100% of students responded negative.

It was analyzed that Schools having ICT labs and pre-scribed syllabus for ICT teaching and only one teacher are competent to teach. Rests of teachers are not competent to use ICT due to lack of training. No use latest OS and application software. A regular practical class to student was found positive.

## DISCUSSION OF FINDINGS

The findings of the present study are discussed objective-wise which are as:

**Objective 1:To assess the effectiveness of the scheme related to Fund allocation**

1. The study revealed that all schools haven't received the fund by the central govt. but received fund by the UT govt. under the ICT@ school scheme. Most of the schools have denied to receive the capital expenditure, recurring and non-recurring by GOI but on other side most of schools accept to receive the capital expenditure by UT govt.
2. The teachers and heads of the institutions were not aware about the ICT@ school scheme and not about the objectives of the scheme.
3. In the document of revised ICT@ school scheme (2010) GOI has released the fund 51494.12 Lakh to RAMSA in the year 2015-16 for implementing ICT in all schools of J&K but the decision is still implemented in J&K.

**Objectives 2:To assess the effectiveness of the scheme related to Fund utilization.**

1. The study revealed that all the schools have successfully utilized the fund under ICT @ school scheme received by Central and UT Govt.
2. Heads of the school successfully utilized the fund for implementing the ICT in educational settings in their school.

**Objectives 3: To assess the effectiveness of the scheme related to infrastructure**.

1. The study revealed that in all schools the ICT infrastructure provided under the ICT@ school scheme is fully functioned.
2. The findings have got all the gadgets like, computers (10), printer, smart boards etc. in the schools are available that is mentioned under the ICT@ school scheme document.
3. The study revealed that all schools do not possess good buildings and proper settings of ICT labs. The workings of computers were not good.
4. The findings of the study also revealed that teachers are not competent enough to repair hardware and software related problems occurs in computers.

**Objectives 4: To assess the effectiveness of the scheme related to e-content dealing.**

1. The study revealed that all the Heads and teachers of the schools were not competent enough to deal with e-content. They were not able to develop and use e-content in their teaching.
2. No collaboration of SIET with schools to develop e-content and organize the workshops for teachers to enhance their capacity to develop e-content for the students.

3. No collaboration of CIET with schools to develop e-content and organize workshops for Heads and teachers.
4. The study revealed that CIET has not collaborated with school to develop e-content and learning objectives (Los).

**Objectives 5: To assess the effectiveness of the scheme related to training of teachers.**

1. The study revealed that there were less number of ICT trainers available to give training related to ICT.
2. Study revealed that the pre-service trained teachers weren't available.
3. In-service training for teachers were also not given by SIET, SCERT and CIET.
4. It was also revealed that the competency of teachers regarding ICT was not sufficient.
5. Shortage of time is revealed as the main obstacle. The teachers did not get adequate time to collaborate the ICT with subjects.

## EDUCATIONAL IMPLICATIONS:

In the view of findingsderived from the present study,the following are the implications :

1. As the study focus on the implementation status of ICT @school scheme. It is useful for policy makers and on the parts of the planners to ensure that to what extent ICT has been implemented in the Secondary School. The study has revealed the issues and challenges for successful integration of ICT in education that need to be resolved. Further in the study it was found that the UT Govt. has no coordination with the schools to get drawbacks and collecting technical feedback about ICT usage and utilization.
2. ICT policy makers need to realize that teachers should be included in policy planning and should be familiar with school level policies. So teachers must be motivated for ICT utilization.
3. The present study revealed that more focus on training of ICT teachers should be done. ICT training courses for teachers should be offered that are especially tailored to meet the needs of schools and teachers.
4. Teachers expressed the need to provide system application software in the field of education so there must be provision for that in the scheme. Latest OS is mandatory in all systems.
5. The concept of maximum utilization of ICT labs by the community is almost negligible so effort must be done in that aspect for catering the needs of the community.
6. All the stakeholders related with school education are mainly responsible for the better implementation of the scheme. The heads of the school must be oriented to encourage teachers to use ICT in their teaching to ensure equal learning opportunities. The govt. must take initiatives in that perspective.

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