

## IMPACT OF ADVANCED COMMUNICATION TECHNOLOGY AMONG THE CBSE SCHOOL TEACHERS IN ERODE DISTRICT OF TAMILNADU

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### Abstract

A series of strategies have been initiated in the Indian CBSE Schools to promote target-setting, communication, network access and training for teachers in the use of Advanced Communications Technology. To analyse what is happening at schools regarding the integration and use of advanced communication technology. In this research, the researcher has mainly focused on to examine the advanced communication technology among the school teachers working in CBSE schools in Erode district of Tamilnadu. For this, 294 school teachers were selected randomly working in CBSE schools in Erode district. The opinion of the school teachers has collected through the structured questionnaire. Twelve statements were framed in the questionnaire with Likert's five point scaling technique. The collected details are subduced into tables with factor analysis technique and multiple regression analysis. The result of the factor analysis technique shows three factors found with named as 'Self-Efficacy', 'Good Communication' and 'Role Construction'. Among the three factors, self efficacy is highly influenced the impact of advanced communication technology of the school teachers in Erode district of Tamilnadu.

**Keywords :** CBSE School Teachers, Advanced Communication Technology, Impact, Self-Efficacy, Role Construction.

### Introduction

Communication also plays an inevitable role in schools. The teachers communicate with students regularly in class regarding their subjects and activities, in turn the parents are communicated about their children's growth and academics. Similarly, parents doubts and queries are cleared by teachers. Hence a two-way communication is emphasized in schools.

Now a days, schools are using several advanced communication technology for teaching in classrooms and also for communicating parents. Advanced communication technology adopted in schools provides a lot of opportunities to teachers for transforming their pedagogy from teacher centered to learner centered with the modern teaching techniques. With the help of these techniques the classrooms are becoming more interesting and interacting.

Parents are kept informed about their children's activities as and when needed with the help of several modes of communication. This helps them to contribute their support for children's growth and it enables them to have an eye on their children in school amidst their busy schedule. Effective communication serves as a platform for good home-school collaboration, and when parents and schools work together, children receive the support they need to thrive and grow at school.

### Review of Literature

Hulya Aslan, et al., (2016) observed in their study that pre-service science teachers had a high level of self-efficacy, an average level of anxiety and a high level of positive attitudes towards educational technology, and it also revealed that self-efficacy, anxiety and attitudes regarding educational technology were correlated. Ibrahim Abukhattala, (2016) found in his study that three themes had emerged which were understanding of technology, types of technology and cultural and traditional styles of learning and teaching. Also, participants complained about lack of funding, scarcity of technology in schools and paucity of proper training to use technology. However, all the participants were willing to use technology to teach English as a foreign language. Lin B. Carver, (2016) explored that the majority of respondents indicated they taught primary (K-2) elementary school (41%) with one-third (33%) indicating they taught intermediate (3-5) elementary and middle school. Less than one-fifth of the respondents indicated they taught high school (19%). The majority of the respondents appeared to be elementary teachers on the kindergarten through fifth grade level who taught multiple subject areas.

Philomina and Amutha, (2016) determined in their study that Indian teacher educators' awareness towards ICT differed regarding gender and subject. Further, when compared with M.Ed. and M.Phil. scholars, Ph.D. scholars surpassed the M.Ed. and M.Phil. scholars in terms of ICT awareness in different dimensions. It was concluded that indeed in India teacher educators' awareness on ICT integration needed to be strengthened. Mehmet Kemal Aydin et al., (2016) explored in their study that a private school outperformed all public schools, including Fatih and non-Fatih schools. This study concluded that ICT coordination and support, ICT vision, policy and teachers' ICT training and their ICT use were policy domains that should be addressed and improved in both Fatih and non-Fatih schools.

### Statement of The Problem

Now-a-days, mushrooming of CBSE schools in all the major cities in Tamilnadu as well as other states of Tamilnadu. The parents are more expected their child education in the competitive way. So, more number of parents are interested to join their child to CBSE school. Increasing the CBSE schools and more number of students, the school management have introduced various advanced communication technology that helps to increase the cordial relationship between parents, teachers, students and school management. Due to difficult to understanding the advanced communication technology of the parents, they have suffered to communication well with the school teachers. So, school teachers faced lot of struggling to communicate well with the parents. Hence, the study arise to examine the impact of advanced communication technology among the school teachers in CBSE school teachers in Erode district of Tamilnadu.

### Objectives of The Study

1. To examine the impact of advanced communication technology of the CBSE school teachers in Erode district of Tamilnadu.
2. To predict the major influenced factor of impact of advanced communication technology of the CBSE school teachers in the study area.

### Research Methodology

It is a descriptive based research. In this research, the impact of advanced communication technology among the teachers has examined. For this, CBSE school teachers have selected randomly in Erode district because, in Erode, there are mushrooming of CBSE schools in the research period. So, Erode district CBSE schools selected. Randomly 294 school teachers have selected. A structured questionnaire framed and collected their opinion about the impact of advanced communication technology through twelve statements with likert's five point scaling technique. The statements are presented in appendix presented at the end of the article. The reliability of the sample data are tested by Cronbach's Alpha. The collected details are analysed with factor analysis technique followed by multiple regression analysis.

### Results and Discussion

In this section, the researcher has explained about the impact of advanced communication technology on teachers working in CBSE Schools, Erode district of Tamilnadu. For this, twelve statements have been taken for examining the impact of advanced communication technology among the teachers. These statements were structured with using Likert's five point scalling technique. The opinion of the teachers was collected and to calculated the highly inter-correlated variables through factor analysis technique. Before that, for the sake of convergent validity, the twelve statements are checked by the Cronbach's Alpha. The result of the test is given below.

**Table 1 : Reliability Statistics**

Cronbach's Alpha	No. of Items
0.873	12

The above table shows the reliability of the selected given data statements. From the result of Cronbach's Alpha, the data has supported for further analysis with 87.3 percent of reliability. For examining the appropriateness of the data, the data were tested by KMO and Bartlett's test and the results are given below.

**Table 2 : KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.865	
Bartlett's Test of Sphericity	Approx. Chi-Square	1776.743
	DF	78
	Sig.	0.000

The above table shows the KMO test for sampling adequacy. From this result, the data was highly appropriated to do further analysis. It supported around 86.5 percent with high level of significance. So, the data has taken for further analysis of factor analysis technique.

For finding the highly inter-correlated statements, total variance explained and rotated component matrix has examined with using the principle component analysis method. The total variance explained shows the number of groups which were

grouped by the factor analysis tool and percentage of variation. The rotated component matrix explains the number of variables has taken for every group. The result of the technique is given below.

**Table No. 3 : Rotated Component Matrix**

Variable No.	Component		
	Factor 1	Factor 2	Factor 3
Statement 7	0.715		
Statement 6	0.640		
Statement 8	0.632		
Statement 9	0.622		
Statement 10	0.668		
Statement 12		0.809	
Statement 13		0.710	
Statement 11		0.665	
Statement 4			0.891
Statement 5			0.862
Statement 2			0.809
Statement 3			0.753
Statement 1			0.689
<b>Eigen Values</b>	<b>5.412</b>	<b>1.715</b>	<b>1.181</b>
<b>% of Variance</b>	<b>24.874</b>	<b>20.676</b>	<b>18.356</b>
<b>Cumulative %</b>	<b>24.874</b>	<b>45.550</b>	<b>63.906</b>

Extraction Method : Principal Component Analysis.

Rotation Method : Varimax with Kaiser Normalization.

Rotation converged in 5 iterations

The above table shows the combinations of the results of total variance explained and rotated component matrix. The 'total variables explained' show the three groups and its 'Eigen Values' shows the value of more than one. It identified from the bottom three rows of the above table. The three rows explained the Eigen values, percentage of variance and cumulative percentage that indicate the three groups were found the data has supported 63.906 percent for this research. This is an good result and made the study reliable to the analysis.

From the factor analysis result, it shows the statements are grouped within three respective groups 'Factor 1', 'Factor 2' and 'Factor 3'. Factor 1 consist five statements and these statements are reflected the opinion of the teachers towards their ability to succeed the communication with parents and so, the researcher named this segment of the teachers are having '**Self-Efficacy**' character. The factor 2 consist three statements and these statements are reflected the opinion of the teachers towards communication with students' parents. So, the factor named as '**Good Communication Teachers**'. Finally, the factor 3, which consists of five factors that related to the role played by the teachers. So, the researcher named this segment of the teachers has '**Role Construction**' character.

Among the three groups, which group of the respondents are highly impacted the advanced communication technology, that has find through multiple regression analysis. For this, overall impact has taken as dependent variable and these three factors which are grouped by the factor analysis technique are considered as independent variables. In order to find the relationship between the overall impact and these three independent variables, a hypothesis has been framed and discussed with multiple regression analysis.

$H_0$  : There is no significant prediction of overall impact of advanced communication technology with respect to Self-Efficacy, Good Communication Teachers and Role Construction.

**Table 4 : Impact of Advanced Communication Technology (Multiple Regression Analysis)**

No.	Variables	Coefficient	SE	't' value	'p' value
	(Constant)	0.005	0.069		
1.	Self – Efficacy	0.487	0.017	27.953	0.000*
2.	Good Communication	0.216	0.030	7.229	0.000*
3.	Role Construction	0.295	0.026	11.247	0.000*
	<b>R Value</b>	<b>0.965</b>			
	<b>R<sup>2</sup> Value</b>	<b>0.932</b>			
	<b>F Value</b>	<b>1322.23*</b>			

**Note :** \* - Significant at 1% level; NS – Not Significant.

From the above table, it shows that the model fit as 93.2 percent for impact of advanced communication technology. The F value shows the model fit with significantly. The 'p' value indicates that the null hypothesis is rejected. So, the three independent variables are predicted significantly the overall impact of advanced communication technology. The variable self-efficacy is predicted the impact of advanced communication technology as 48.7 percent, the variable good communication is predicted the impact of advanced communication technology as 21.6 percent and the variable 'Role Construction' is predicted the impact of advanced communication technology as 29.5 percent.

### Findings and Recommendations

1. The twelve statements related to impact of advanced communication technology is grouped as three factors which consist five statements, three statements and five statements respectively.
2. The three factors are 'Self-Efficacy', 'Good Communication' and 'Role Construction' and the factors contributes 48.7 percent, 21.6 percent and 29.5 percent respectively to predict the impact of advanced communication technology.
3. Among the three groups 'Self-Efficacy' is highly influenced the impact of advanced communication technology. It proves the teachers' skills and ability to success their communication with students' parents. The advanced technology enables them to communication easier with parents and students. So, it is recommended to the teachers that they have to cope up the advanced communication technology in case of any difficulty for adopting the communication system. It leads to increase the satisfaction of the teachers as well as parents, students and school management simultaneously.

### Conclusion

In this research, the researcher has mainly focused on to examine the impact of modern communication technology among the CBSE school teachers in Erode district of Tamilnadu. From the research, the researcher has gained three groups which arrived from the twelve statements of the impact of advanced communication technology. These three factors are highly predicted significantly the impact of advanced communication technology. From this 'Self-efficacy' character is highly impacted the school teachers. Particularly, it indicates the skills and talent of the teachers in communication with parents, students and school management.

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### Appendix

No.	Statements
1	Academic details are communicated to students' parents regularly.
2	Whatever received from the students' parents, I am the responsible person.
3	Frequent parent communication with school will fine tune the student in a better way.
4	I assure, I will continuously connected with the students' parents.
5	I am the authority of parent communication regularly or whenever needed.
6	Students performance are changed after communication with their parents.
7	I have good experience in communication with my student's parent.
8	I have a good communication language that helps to clear communication with parents.
9	Advanced communication technology enhance the easy concerning with the parents and students.
10	There is no hard to communicate with parent.
11	I am encouraged when parent communicate often.
12	Parent feels cordial when conveyed.