DIFFICULTIES FACED BY HIGHER SECONDARY SCHOOL TEACHERS OF LAKSHADWEEP ISLANDS IN USING ICT

Dr. A. Hameed[1] and Muhammed Hamdulla, A.[2]

Abstract

The education system of Lakshadweep is sharing the pattern of Kerala and now the pedagogical practices in Lakshadweep is propelled with the assistance of ICT as in Kerala. The use of modern technological tools such as computers and the internet is still in its infancy stage in Lakshadweep. The main hurdles of using ICT in teaching and learning process is the unavailability of network and the anxiety of teachers towards the use of ICT in the classroom. Lakshadweep has come a long way since its history, but it has yet not achieved most developments and facilities. This study is focusing on ICT and its utilization in the field of Education in Lakshadweep Islands. The study was carried out on a representative sample of 200 Higher Secondary School Teachers from Lakshadweep islands. For the present study, the investigators used a recently developed Questionnaire on Perceived Difficulties of Using ICT. Percentage analysis was used to find out the different levels of Perceived Difficulties in Using ICT among Higher secondary School Teachers of Lakshadweep and Test of Significance of Difference between Means was used to find out if there exists any significant difference in the mean scores of perceived difficulties in Using ICT, based on the sub-samples Gender and Teaching Experience. From the study it is evident that majority of the Higher secondary School Teachers from Lakshadweep islands have an average level of perceived difficulties in using ICT. The study also finds that there exists significant difference in the mean scores of perceived difficulties in Using ICT, based on the sub-samples Gender and Teaching Experience. The findings of the study also convey that, Female Higher Secondary School teachers of Lakshadweep have more difficulty while handling ICT in classrooms than male teachers and below ten years experienced Higher secondary School Teachers, i.e., the new appointed teachers experienced less difficulties while using ICT.

Keywords*: Perceived difficulties, Information and communication's technology, Higher secondary school teachers, and Lakshadweep islands.*

"Technology will never replace great teachers.
But technology in the hands of great teachers is transformation"

- George Couros (2015)

In the past few decades, Information and Communication Technologies have provided society with a vast array of new communication capabilities. For example, people can communicate in real-time with others in different countries using technologies such as instant

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[1] Assistant Professor, Department of Education, University of Calicut, Calicut University PO, Kerala.
[2] M.Ed. Student, Department of Education, University of Calicut, Calicut University PO, Kerala.

messaging, voice over IP (VoIP), and video-conferencing. ICT plays at vital role in the field of education as it can complement, enrich and transform education for the better. ICTs stands for "Information and Communication Technologies." ICTs refers to technologies that provide access to information through telecommunications. It is similar to Information Technology (IT), but focuses primarily on communication technologies. This includes the Internet, wireless networks, cell phones, and other communication mediums. ICT also refers to the applications found on most thin client computers, internet and other electronic delivery systems such as radios, digital televisions and projectors.

Developments about and wide spread use of Information and Communication Technology (ICT) has influenced all fields in life, and education is one among them. Several Nations visualize ICT as a potential tool for changing and innovating the education (Eurydice, 2001) and thus, making instruments in ICT. In case of educational sector, Higher secondary School Teachers can use ICT as a pedagogical tool. It is the use of ICT facilities in teaching and learning process which involved the use of software applications to solve problems to provoke student capabilities, to create products or communicate and share their perspective with each other (Jonasen, Peck, & Wilson, 1999).

If the goal is to promote technology enhanced education, its primary importance is to investigate what teachers perceive of ICT and its use in education and what their knowledge and skill is or what skill they need to develop further. The education system of Lakshadweep is sharing the pattern of Kerala State likely NCERT and SCERT. Now the pedagogical practices in Lakshadweep islands is propelled with the assistance of ICT just like Kerala. As in Kerala, the Department of education in Lakshadweep is providing in-service training for primary, secondary and higher secondary teachers to develop their abilities in ICT. The variation in the abilities of ICT with respect to skilled and unskilled teachers in Islands put the child's mind juxtaposed.

NEED AND SIGNIFICANCE OF THE STUDY

The use of modern technological tools such as computers and the internet is still in its infancy stage in Lakshadweep. The main hurdles of using ICT in teaching and learning process is the unavailability of network and the anxiety of teachers towards the use of ICT in the classroom. The integration of ICT into the daily lives of the mainland teachers has helped them to overcome the initial fear and anxiety about facing different challenges while using ICT in the classrooms. The lack of internet connectivity has become a hurdle for the islanders to have trust in the whole technology in such a way that they could plan their classroom and teaching activities through it. This issue has also made the older generation teachers to become completely alien to the whole idea of ICT integrated teaching learning process. Though a major part of the present generation teacher community in Lakshadweep islands are willing to make use of the ICT facilities in their teaching process the lack of network and uncertainty of the electricity availability stand in between their motivation and their task.

The gap between those who have access to, and control technology and those who do not is still there. The introduction and integration of ICTs at different levels of education is a

challenge that have to be undertaken in Lakshadweep Islands. The accessibility of technology and network of Lakshadweep is comparatively poor when compared to Kerala and the other states in India. Its high time that he government and private telecom companies find a way to improve the connectivity of internet network in the Lakshadweep islands only then the recommendations and educational planning that are being put forward for the whole nation can be achieved by the island community as well.

Prince (2006) concluded that varieties of techniques are needed for teachers to effectively utilize ICT instructional materials in the teaching and learning process. It was also revealed that there are significant differences in the effectiveness between professionally trained teachers and untrained teachers in their ICT instructional material utilization competencies. The most crucial factor in integrating ICT into teaching and learning depends on the extent to which various guiding principles of the integration are formulated and applied. While using ICT for creating a new learning culture, one has to take into consideration the current social and economic conditions, existing telecommunication infrastructure and cultural and linguistic factors. Furthermore, ICT tools have to be infused into pedagogy in such a way that its uses improve the learning process.

The main focus of the study was to understand the perceived difficulties while using ICT and how it would vary on the basis of their gender as well as their experience in the teaching field. As there is no related study available from authorized sources conducted on perceived difficulties of ICT among Higher secondary School Teachers, the present study can be taken as the first initiative in this direction.

OBJECTIVES OF THE STUDY

1. To study the level of perceived Difficulties in using ICT among Higher Secondary School Teachers of Lakshadweep.

2. To study whether there exists any significant difference in the mean scores of perceived difficulties in Using ICT among Higher secondary School Teachers of Lakshadweep based on a) Gender and b) Teaching Experience.

HYPOTHESES OF THE STUDY

The hypotheses formulated for the study was 'There will be significant difference in the mean scores of perceived difficulties in using ICT among Higher secondary School Teachers of Lakshadweep based on a) Gender and b) Teaching Experience'.

METHODOLOGY

The methodology selected for the study is as follows.

Sample: The investigator has taken the sample of teachers from Higher Secondary schools of Lakshadweep Islands. The present study was carried out on a representative sample of 200 Higher Secondary teachers from Lakshadweep islands selected giving representation to factors like gender and teaching experience.

Tool: For the study, the Questionnaire on Perceived Difficulties of Using ICT (Aruna & Hamdulla, 2019) was utilized.

Statistical Techniques Used:

1. Percentage analysis

2. Test of Significance of Difference between Means

RESULTS AND DISCUSSIONS

Perceived Difficulties in using ICT among Higher secondary School Teachers of Lakshadweep Islands

To know the level of Perceived Difficulties in using ICT among Higher secondary School Teachers of Lakshadweep Islands, the investigator calculated the percentages of different levels. The results are given in Table 1.

Table 1. Levels of Perceived Difficulties in using ICT among Higher secondary School Teachers of Lakshadweep Islands

Variable	Category	Frequency	Percentage
Perceived Difficulties in using ICT	High	45	22.50
	Average	113	56.50
	Low	42	21.00
	Total	200	100.00

Table 1 reveals that, out of the total 200 Higher secondary School Teachers from Lakshadweep islands, only 22.50 percent have higher level of Perceived Difficulties in using ICT. 56.50 percent of them have average level of Perceived Difficulties in using ICT and only 21 percent of them have low level of Perceived Difficulties in using ICT. From this it is clear that, majority of the Higher secondary School Teachers from Lakshadweep islands have an average level of perceived difficulties in using ICT and same level of Attitude towards ICT.

Comparison of Mean scores of Perceived Difficulties in using ICT among Higher secondary School Teachers

Comparison of Mean scores were carried out to test whether there exists any significant difference between the mean scores of the variables Perceived Difficulties in using ICT among Higher secondary School Teachers of Lakshadweep Islands based on the sub-samples gender and year of experience and results are given in Table 2.

Table 2. Data and Results of the Test of Significance of Difference between the Mean Scores of Perceived Difficulties in using ICT among Higher secondary School Teachers of Lakshadweep Islands based on the sub-samples Gender and Year of Experience

Variable	Sub-samples		N	Mean	Standard Deviation	C.R.
Perceived Difficulties in the Using ICT	Gender	Male	65	26.20	4.434	2.091[*]
		Female	135	27.50	3.977	
	Years of Experience	Below 10 years	82	26.04	4.593	3.012**
		10 Years & above	118	27.81	3.689	

**indicates *p*<.01;   *indicates *p*<.05

From Table 2, critical ratio obtained for the comparison of the mean scores of Perceived Difficulties in using ICT among Higher secondary School Teachers of Lakshadweep Islands between Male and Female students is 2.091 and it is higher than the table value for 1.96, and is significant at 0.05 level. Hence, it is concluded that the mean score of perceived difficulties in the use of ICT among male and female higher secondary school teachers of Lakshadweep differ significantly. The results also reveal that the female higher secondary school teachers of Lakshadweep Islands have more difficulties in use of ICT than male teachers.

The table also reveals that, critical ratio obtained for the comparison of the mean scores of perceived difficulties in the use of ICT among Higher secondary School Teachers of Lakshadweep Islands between below 10 years and 10 & above experienced teachers is 3.012 and it is higher than the table value for 2.58, and is found significant at 0.01 level. Hence, it can be concluded that the mean score of perceived difficulties in the use of ICT among higher secondary school 10 years and 10 & above experienced teachers of Lakshadweep differ significantly. The results also reveal that 10 and above years experienced Higher secondary School Teachers of Lakshadweep Island are more difficulties in the use of ICT than less experienced or newly appointed teachers.

CONCLUSIONS AND SUGGESTIONS

From the statistical analysis, it is clear that, majority of the Higher secondary School Teachers from Lakshadweep islands have an average level of perceived difficulties in using ICT and same level of Attitude towards ICT. Based on the analysis, the investigator reached the following conclusion. There exists significant difference in the mean scores of perceived difficulties in using ICT among Higher secondary School Teachers of Lakshadweep Islands based on gender. The results conclude that female higher secondary school teachers of Lakshadweep Islands have higher perceived difficulties than male teachers while handling ICT in classrooms. In addition, there exists significant difference in the mean scores of perceived difficulties in using ICT among Higher secondary School Teachers of Lakshadweep Islands based on teaching experience. The results also convey that below ten years experienced Higher

secondary School Teachers, i.e., the newly appointed teachers have experienced less difficulties while using ICT than more experienced Higher Secondary school Teachers.

Based on the findings of the study the investigator put forward the following suggestions.

- Higher Secondary School Teachers of Lakshadweep should be given opportunity to attend technology based in-service courses that would help them to develop their skills, competences as well as confidence.

- The major problem faced by the teacher community of the Lakshadweep Islands is the low network connectivity. This can be rectified by planning and administering comprehensively with the government and private telecom companies in order to improve the accessibility of the islanders.

- The problems faced by the low network connectivity can be solved by replacing the online process with specific software packages that can aid the teachers to conduct their classroom transaction and evaluation processes.

- Software packages and applications should be developed in such a way that it can be accessed by the teachers in offline mode without worrying about the availability of internet connection.

- The Pre-service teacher education courses offered in the teacher education colleges of Lakshadweep Islands should also focus on the development of the prospective teachers' practical and theoretical knowledge of using and integrating ICT in the classroom transaction as well as evaluation process.

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