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Information Literacy Skills and Impact of COVID-19 on Rural Students of Tamil Nadu, South India

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Abstract

Information Literacy is an effective tool to analyze the current knowledge and education quality of students who is pursuing school and college education. Most of the studies on information literacy have been conducted in rural and urban areas students. Although rural students are facing several problems for studying school and higher education levels revealed by information literacy assessment is necessary for rural students due to online education and economic impact with COVID-19 issue. Therefore, the proposed study is aimed to concentrate the present knowledge to the information literacy skill, and impact with COVID-19 student's education level in the rural students of Tamil Nadu State, South India. In each village, about 25 to 50 students will be chosen by questionnaire method. The question were raised their demography, Information literacy skill and impact with covid-19 of the rural students education level. The result of the study central and state government should facilitate rural students by providing them with all kinds of facilities like laptops and smart phones and going to the slums to improve the quality of education of rural students and promote access to their higher education and intellectual information.

Keywords: *Rural Students, Literacy, Skills, Covid-19, Information Literacy.*

Introduction

Many families are still unable to meet their daily needs due to the pandemic corona virus infection. Online schooling amidst the pandemic situation is filled the gap and made education more accessible to these students in the post-epidemic period. The unprecedented digital transformation of education is a severe setback for students from disadvantaged sections of society's economy. Even though rural students have allowed many in their community to dream,

the epidemic has now crushed those dreams and left young minds worried about their future. As the epidemic is rampant, these rural students have not yet benefited from online education. Urban based students could face the online education at the pandemic situation in various way but rural students faced the difficult situation and not access the online education.

Information literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information proposed by (American Library Association 1989). Rural people economic status is below poverty line and their literacy is also less. The comparison between literacy rates among rural people also shows a huge disparity. These variations are a reflection of the differences in economic, social, cultural, religious and demographic characteristics of the different tribes and their exposure to the forces of modernization, urbanization and industrialization (Mitra and Singh, 2008).

Simultaneously it has been widely used in collegiate education to examine the potential of students' knowledge on information. But there is no study on rural students. In addition, the pandemic spread of human corona virus and severe economic crisis faced by Indian government are affected school education throughout country, even though, well established online education available, many rural and remote area students have not utilize this facility due to lacking of cell phone towers. At this condition, remote area and tribal student's education should be concerned to continue their education and make necessary steps to pursue higher education. Hence, the present study is focused to examine the information literacy skills and Covid-19 impact of tribal student's education from school education.

Review of Literature

Herring (2011) found that when school students compared their school information literacy skills with those required in their work experience there were differences in terms of sources and types of information and that their teachers "lack knowledge of these workplace information environments" (Adeoye & Popoola 2011) highlighted the effectiveness, availability, accessibility and use of library and information resources in their study. They explained that, for effective learning process, learners must have access to necessary information materials and resources. These resources might be in tangible (i.e., printed resources) and intangible (i.e., electronic resources) format. (Eisenberg 2008) emphasizes practical strategies for development of effective IL skills learning and instruction in a range of situations. The author covers

conceptual understandings of IL, the range of IL standards and models, technology within the IL framework and three contexts for successful IL learning and teaching: (i) the information process itself, (ii) technology in context, and (iii) implementation through real needs in real situations.

Objectives of the study

1. To assess rural students the information literacy skill in Government schools in the State of Tamil Nadu.
2. To assess to what extent, rural students are utilized electronic gadget.
3. To analyze impact with COVID-19 issue of the rural students education level.

Methodology

Tamil Nadu is one of the 29 states of India. Its capital city is Chennai. Tamil Nadu lies in the southernmost part of the Indian Peninsula and is bordered by the union territory of Pondicherry and the South Indian states of Kerala, Karnataka, and Andhra Pradesh. Tamil Nadu is the eleventh-largest state in India by area and the sixth-most populous. Tamil Nadu consists of 38 districts. Among 38 districts of Tamil Nadu, the present study was conducted in 10 schools under 10 districts of Tamil Nadu (Figure 1). Research design is adopted plural districts design as deployed the descriptive survey method and experimental design since the students were assigned the information skills search using appropriate them and electronic devices

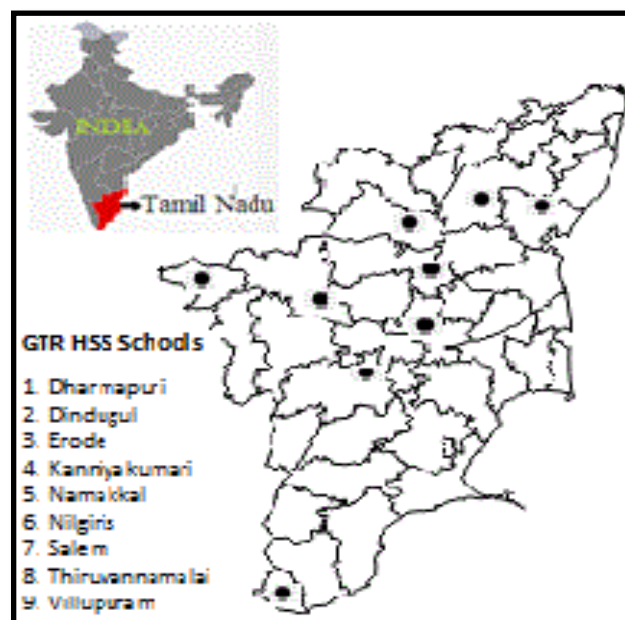


Figure: 1 Map Showing the Surveyed Rural Schools in Tamil Nadu State

Analysis Results

Table 1 Demographic Profile of Respondents

Gender:	n	%
Male	271	(54)
Female	229	(46)
Class:		
XI	238	(48)
XII	262	(52)
Group-wise:		
Bio-Maths	98	(19.5)
Pure Science	79	(16)
Computer Science	93	(18.5)
Commerce	230	(46)
Educational Qualification of Parents:		
Primary School	79	(16)
Middle School	98	(19.5)
Higher School	116	(23)
Higher Secondary School	104	(21)
Bachelor Degree	24	(5)
Master Degree	14	(3)
Doctorate	0	0
illiterate	65	(12.5)

A total of 500 higher secondary school students from 10 Government rural schools were assessed. In ten schools, 271 boys and 229 girls were participated. The boys percentage is higher (54%) in rural schools, while has the lowest (46%) percentage of girls. Of the sum of 500 students, ((%46in higher secondary courses study in commerce and at least students studied (16 (%in pure science. The table 1 reveals that Most of the parents completed an average of elementary school education. It has been found that those who qualify for graduation are much less likely than parents who graduate from school. In particular, the parents of 65were found to be illiterate.

Table 2 Status of Library

Status of Library	Yes (%)	No (%)
Library Facility	50 (100)	0
Library Functioning	0	50 (100)
Would like to go to library	415 (83)	85 (17)

It is evident from the below Table 2, more than 100% rural schools have library facility available, however The response of rural students (100%) revealed that the school library was not functioning. It seems that most rural students (83 %) are very eager to go to the school library and read the book and other diaries.

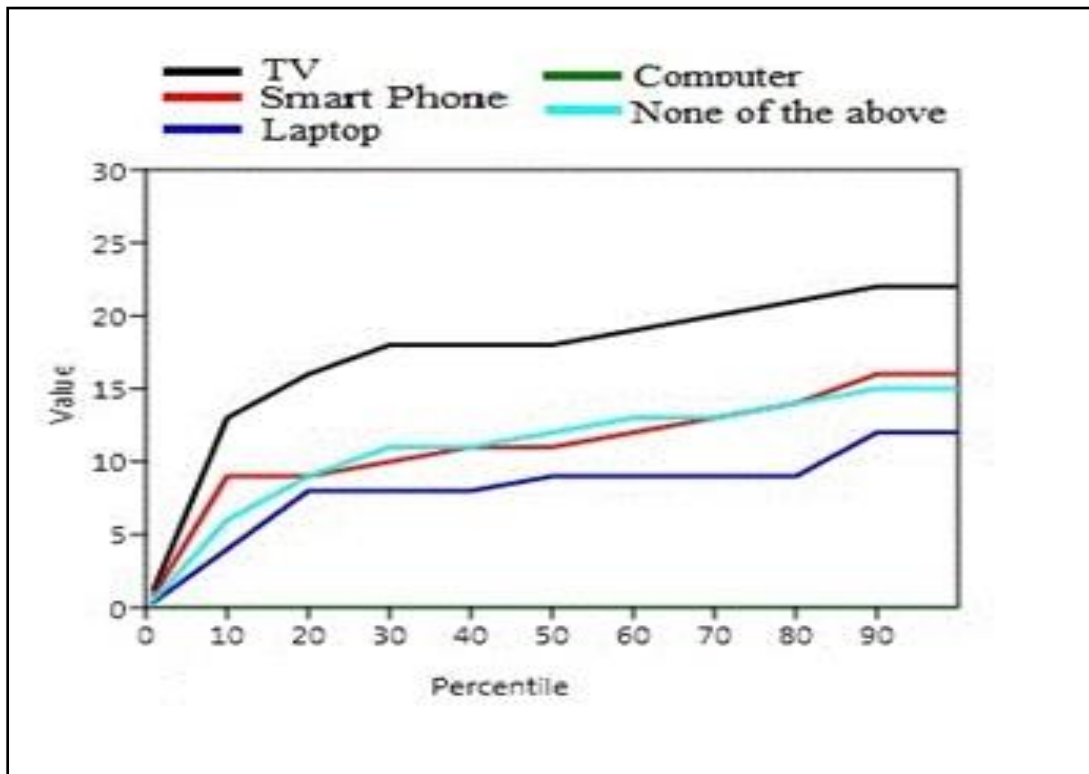


Figure 2: Type of Electronics Items used by Respondents

(Figure 2 Percentile) seem to be most of rural students' homes having television (37%) after that (24.5%) of students have smart phone, followed by (16.5%) with laptops and mainly seem to be (22%) students are not having any electronic devices in their homes.

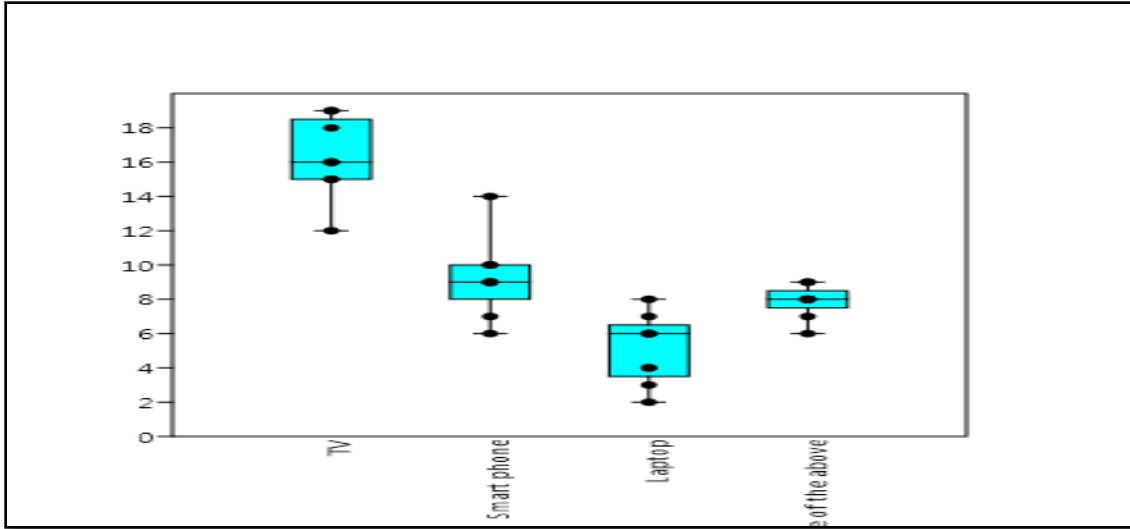


Figure 3: Frequently used Communication Devices

According to data taken only from students with electronic devices, (43%) rural students are more likely to watch television (Figure 3 Box plot), of (25.5%) students are using smart phone, (13%) of students are using laptop and it is observed that despite electronic devices, (21%) students are not use it.

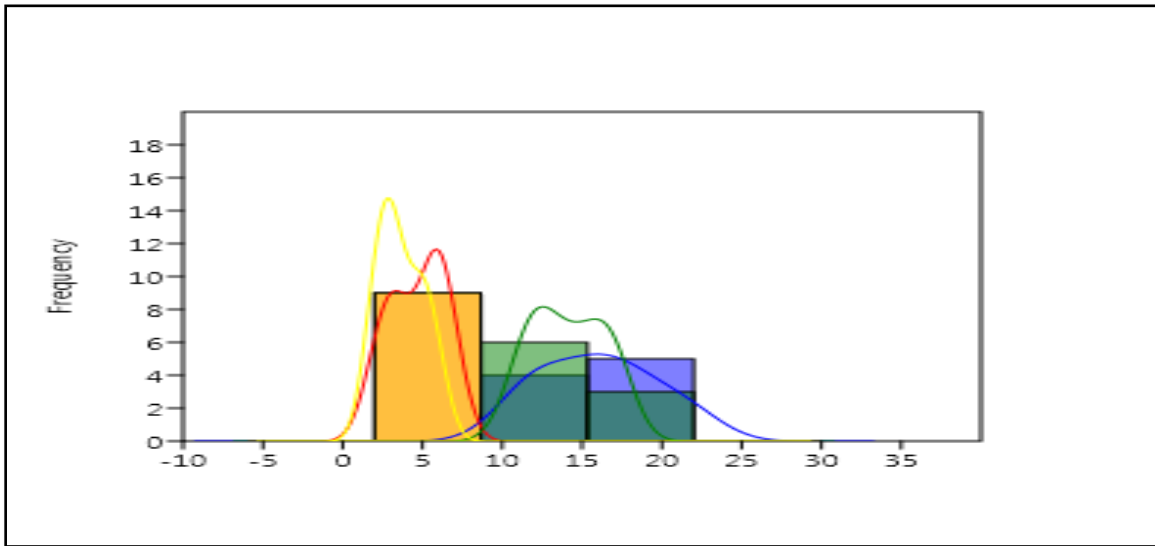


Figure 4: Purpose for using Electronic Devices

If students use electronic devices for any purpose, students are using smart phones for the purpose of chatting, as (40.5%) the focus of students is on chatting of information, 37% students of using in education purpose only and other students using in electronic games. (Figure 4 Histogram)

Table 3: Information Literacy Skills

IL Skills	n	%	Mean	SD
Purpose of Need information				
Assignment	70	14	7.7	2.93
Project work	33	6.5	3.6	1.13
Update subject knowledge	27	5.5	3	1.01
Exam	325	65	36.1	3.5
General Awareness	45	9	5	1.92
Information Seeking Strategies of Students				
Books	296	59	32.8	2.3
Newspapers	38	7.5	4.2	1.3
Magazines / Journals	24	5	2.6	1.4
Websites	130	26	14.4	2.8
None of these	12	2.5	1.3	1.1
Location/Place where the Respondents find the information				
School library	0	0	0	0
Class room	404	81	44.8	1.5
Rural Branch library	47	9	5.2	1.7
Home	49	10	5.4	1.8
Storage format of information Preferred				
Photocopy / Xerox	33	6.5	3.6	2.7
Printing	21	4	2.3	1.22
Pen drive	354	71	39.3	4.5
Notebook	75	15	8.3	3.122
Photograph	17	3.5	1.8	1.855

The purpose of need information was used by the users as shown in (table 3). Indicated that majority of those, (65 %) of students to use information for examination in supported, (14%) Assignment for using information, only (14%) students used for the general awareness and (9%) use for project work activity.

The (table 3) reveals among these sources, the most of the students (59%) are preferred website sources than newspapers, books, etc. This observation indicates that the websites have the best sources for collecting the information.

From the above (table 3), it found that class room is chosen by the majority of respondents (81%). It is followed by both are equal to home and rural branch library (9.5%), and rural School students do not specify the school library if information is required. The (table 3) indicates that the students have different kind of opinion about their favourite search engine which is being

recorded into a tabular form. The (100%) rural students give maximum weighted to the google search engine. There are some other search engine like, Rediff and Alta Vista, but it is not so popular compare to these.

The extract of information can be processed by photocopy, printing, softcopy, notebook and photographs. In the above table 4.23, it can be seen that rural students have chosen pen drives (71%) for their storage of information.

Table 4 Impact of Covid-19 tribal student's education

Corona Impact	n	%
Corona Leisure Time Spending		
Movie	92	20.5
Playing	198	39.5
Reading	133	29.5
Outing	77	17
Time Spend for book reading in corona time		
1 hour	173	34.5
2 hours	149	30
3 hours	81	16
4 hours	49	10
More than 3 hours	48	9.5
Pandemic period time approach to Collect the Information		
Teachers	378	75.5
Parents	40	8
Friends	33	6.5
Online resources	21	4.5
None of the above	28	5.5
Useful to educational television at the corona period?		
Yes	127	25.5
No	373	74.5
Aware of online education resources		
Yes	101	20
No	399	80

The question was asked about corona leisure time of rural students. It is evident from the above (table 4) that most of the students (39.5%) are spending their corona leisure time for playing followed by reading (29.5%), watching movies (20.5%), and outing (17%).

(Table 4) indicates that 35% of respondents are given 1 hour for reading. Next to 1 hour, 34.5% of respondents given 2 hours of time for reading and 30% are given 3 hours and more than 3 hours (16%) for reading in a day. Few percentages (10%) of respondents are not given any time for reading.

From the (Table 4) can be seen that teachers are helpful for rural students corona of time education (75.5%) to collect the information greatly than the other persons, following this parents (8%) preferred as helping source to assist the collection of information and (6.5%) of students chosen by friends.

In this important question the rural students often believed that educational television was of no use and the other (74.5%) students thought that educational television was useful.

A question was asked to aware of online e-resources pandemic period. By giving response to this question, overall there was a (80%) feebly for inappropriate knowledge of education online e-resources information technology and e-resources. Because much of today's information technology makes use of computers, it is important to investigate the relationship between computer used by students and their use of electronic resources in the.

The question was asked students aware of the online education for e-resources during the pandemic period. By giving response to this question, over all there was around 80% of the responding rural students are not aware of and 20% student's respondents aware of online resources.

Discussion

The study findings reveal a number of issues that need to be addressed. The study found that in only of students more than female students are studying higher secondary course. Among all groups in higher secondary course, a majority of students are studying commerce group. The present study also observed that the most of the parents are literally educated and are qualified with degree level. (According to the 2011 Census of India, Tamil Nadu ranks 14th among other states, with a literacy rate of 86.77% for men and 73.44% for women.)We notice that students are not having any electronic devices in their homes. rural students despite having a substantial amount of electronic gadget in it, it seems that rural students use it more for chatting than for educational purpose only. It seems from the study taken that the public school library we see in the rural schools is not even used. There will be a school library, public library, home library and ICT facilities for students living in other areas. But none of the above facilities can be availed by rural students. Therefore, the existing school library should be upgraded to accommodate the educational ability and reading habits of the rural students. This finding contrast to the report "Libraries are the place that imparts an important role in students" academic achievement, curriculum improvement and coaching" (New York Comprehensive Center, 2011). Nevertheless,

the study's findings rural home has to television and so on students give importance to watching TV. More rural students are using Chatting's in social media than the online education- related, despite their limited ability to smart phone.(Wong, 2011). People are inseparable from their smart phones and they are more likely to use mobile technologies to access different types of information. According to Lenhart (2015) estimate that 90% of emerging adults use social media daily. Lenhart also reported that 24% of 13-17 year olds say they use social media “almost constantly. It is notable that study students highly usage in chatting in social media and other than give education purpose. Student purpose need to information highly in examination. For example, finding data to their homework, finding essays or finding information about their future work (Selwyn, Marriot, Marriot, 2002).Indicated that majority of students need information for supporting project works, among these sources (of books, encyclopedias, newspapers, magazine/journals and websites), most of the students (59.5%) have preferred website sources than newspapers, books, etc.). It is found that school library is chosen by the majority of respondents. Students give their response about search engine most of them give maximum response to Google. Google is the main information finding tool for all sources of information for school and home (i.e., for academic and for personal information seeking) (Burns, 2008). Converse & Rodgers (1976), the domain most strongly related to the global index of well-being was the domain covering non-working, or spare time activities. Different free time activities provide different benefits to individuals. For example, TV watching is a good way to relax, but unless one is watching a documentary, or educational program, little else can be gained from it. Therefore, the nature of leisure activities is important, particularly the question of whether they provide sufficient challenges or structure. For this reason, the present study is dealt with leisure time spending to respondents of higher secondary school rural students. The result of this study highlights that reading is the second most option for surveyed students and first options for playing during leisure time. The same has been discussed and supported by the earlier studies (Anic *et al.*, 2017) that majority of participants spend their free time on reading (63.59%), leisure with family (60.17%), studying (58.63%), social interactions (48.71%) and sports (32.48%).The finding of this analysis is accordance with the report of Anic *et al.* (2017) that during the corona leisure time, the most of the respondents are given one hour time per day for reading and some respondents are not given any time for reading. It may be due to the lack of motivation to respondents. Leisure can be rewarding when intrinsically valuable pursuits allow people to use

their skills and interact with friends and family (Argyle, 2001). A person can choose what to do and at what time, with whom he or she wants to be, where to go, etc. All that autonomy makes free time ideal for satisfying our basic needs, which will, depending on how successful we are, enhance our well-being (Anic *et al.*, 2017). It can be seen that teachers are from corona time collecting information more useful (75.5%) than the other persons. Much research has focused on teacher characteristics that motivate students to achieve; specifically, many studies have examined teacher demographics, as well as teachers' academic preparation (e.g., Hansen & Feldhusen, 1994; Westberg & Daoust, 2003). The Government of Tamil Nadu has started video recorded classes for 10th and 12th class students. The rural students often believed that educational television was of no use because Moreover, most of the rural villages does not have cell phone tower and internet. For this reason, students are mandatory to attend virtual class to enrich the intermittent education. Offer online science virtual labs to students who do not have access to traditional labs (Nedungadi *et al.*, 2013), assist in learning disabilities (Geetha *et al.*, 2013; Haridas *et al.*, 2018) and remotely monitor classrooms (Nedungadi, Jayakumar and Raman, 2018; Nedungadi, Mulki & Raman, 2018). The students aware of the online education for e-resources during the pandemic period in rural students are not aware of online e-resources. Because many new technologies and web based activities are interactive, online coursework has the potential to create environments where students actively engage with material and learn by doing, refining their understanding as they build new knowledge (Johnston, Killion & Omomen, 2005; Pallof & Pratt, 2003). (As Driscoll 2002). The Tamil Nadu government should have concern for IL skill development among higher secondary school students. Online education, the basic structure of rural government schools, needs to be improved.

Conclusion

Despite the availability of electricity and other facilities in the study of rural students in the state of Tamil Nadu to reflect the information skills of the surveyed students and the quality of education during the epidemic period, many rural students are now in a position to understand and study the textbooks themselves, with improved internet / computer and reliable internet connection for the time being. The study wants to state that the central and state government should facilitate rural students by providing them with all kinds of facilities like laptops and smart phones and going to the slums to improve the quality of education of rural students and promote access to their higher education and intellectual information.

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