COLLEGE LIBRARIES
Vol. 39 No. 04 December 2024 pp. 41-52

Assessment of Digital Literacy Skills of the Users of Public Libraries in Kalimpong District of West Bengal, India

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Abstract

The main purpose of the study was to assess the digital literacy skills of the users of public libraries in the Kalimpong district of West Bengal. The study is based on a survey among 2179 users of 21 public libraries in Kalimpong district. A questionnaire was prepared for collecting data. Simple random sampling as well as convenient sampling was used for selecting samples from the users of public libraries. The researcher has collected the data from 2179 respondents belonging to 21 public libraries in 3 blocks of the district. The study showed that users possess good digital literacy skills. They are quite familiar with computer handling, internet usage, and social media usage. However, public libraries do not provide digital literacy training to their patrons, which is the utmost need of the day. The study suggested that it is important to be equipped with new technologies in every public library.

Keywords: Digital literacy; Digital resources; Kalimpong; Library usage; Public Library; Survey method

1. Introduction

The internet has increased the speed of the production of information. The proliferation of information technology has driven modern societies towards information society and as a result, a large portion of society becomes digitally sound and others are digitally poor which creates a digital divide among the people. Handling digital gadgets does not mean being digitally literate. Digital literate means one can work in a system where access to information and communication is done through the internet or digital media platforms. Digital literacy is the "ability to understand and use information in multiple formats from a wide range of sources when presented via computers" (A New Digital Literacy, 1997). Digital literacy is the "ability to succeed in the encounters with the electronic infrastructure and tools that make possible the world of the 21st century" (Martin & Grudziecki, 2006).

Libraries are the platform for obtaining global knowledge. Rapidly increasing technology makes it necessary to change the library environment. Public libraries, as it is known as the people's universities, must play a significant role in bridging the gap between users who are digitally literate and not.

Kalimpong is a district of West Bengal. It was a subdivision of the Darjeeling district up to 2017 and moved out as a separate district on the 14th of February, 2017. According to the 2011 census, the total population of Kalimpong is 2, 51,642. The total number of public libraries in Kalimpong is 30.

2. Statement of the problem

The present study investigates the digital literacy skills of the public library users of Kalimpong district. It also examines the ways of acquiring digital literacy skills and the proficiency level of the users. The researcher tries to find out what constraints the users face in possessing digital literacy skills. The researcher also searches the common digital literacy skills of the public library users of Kalimpong district.

3. Research Questions

RQ1. What is the present status of the digital literacy skills of the public library users of Kalimpong district?

RQ2. How did users of public libraries acquire digital literacy skills?

RQ3.What is the level of proficiency of digital literacy skills of the users?

RQ4.What are the constraints of using digital resources in public libraries of Kalimpong district?

4. Objectives

1. To find out the digital literacy skills of the public library users.
2. To identify the ways of acquiring digital literacy skills of the users.
3. To measure the level of proficiency of digital literacy skills of the users.
4. To detect the constraints of using digital resources.

5. Hypothesis

H1. There is a significant association between the distribution of user feedback and the digital literacy skills of the users.

6. Scope of the study

This study was restricted to the digital literacy skills of 2179 users of 21 public libraries of Kalimpong district of West Bengal, India. For the literature review, only journal articles from the Library and Information Science domain in the English language are considered for this study.

7. Methodology

The survey was conducted among public library users of Kalimpong district of West Bengal, India. The researcher has followed the stratified random sampling as well as convenience sampling method to collect data from 3 blocks of Kalimpong district viz. Kalimpong 1, Kalimpong 2 and Gorubathan. Data have been collected from the users of 21 public libraries (73.33%) in Kalimpong district and 100 users from each public library on average. Questionnaires were used to collect the data from the respondents. The duly filled-in 2179 questionnaires were used for the study. MS Excel was used for analysis.

8. Literature Review

Chakraborty (2023) did a study on digital literacy skills among the Muslim homemaker women of Khidderpore, Tiljala, and Metuabruz areas of Kolkata, West Bengal. The study highlighted the digital tools usage statistics and the purpose of using these among the respondents. Esh & Ghosh (2021) investigated the digital literacy skills among the LIS students of the University of North Bengal. The authors concluded that the LIS students have an average level of proficiency in computer science and have an average level of proficiency in using the internet. There is a need for nourishment in a digital environment. Sreelekshmi & Mini Devi (2021) stated about the digital literacy skills of the patrons of the State Central Library, Thiruvananthapuram. The maximum patrons are from the student community and they have basic knowledge about different digital tools. They use E-resources largely. The problems faced by the patrons in the libraries are a lack of free Wi-Fi facilities, more training programs on digital resources, etc. Martzoukou et al. (2016) did a case study to know the development of digital literacy skills of the librarians of public libraries. A Total of 9 public libraries and 5 library management staff were interviewed. The library personnel were eager to take technical training to promote digital literacy

for the advancement of the communities. The authors draw some recommendations to take the proper lead in creating digitally inclusive and literate communities. Sharma (2016) highlighted the role of public libraries in making digital literate communities. Various forms of digital literacy are elaborated in the paper. The author suggested some steps in promoting digital literacy. Ali (2015) stated about the ICT status of the rural libraries of Jalpaiguri district, West Bengal. Rural libraries face different challenges in providing the right information at the right time due to financial problems, infrastructural problems, etc. Ginger (2015) searched the role of public libraries in promoting digital literacy among underserved Illinois communities. The author used the interview method with the librarians. Nowadays they are shifting themselves in community networking to attract the Illinois communities in generative learning. Dhanavandhan , et al. (2011) evaluated the awareness level of ICT tools among the library personnel of Tamilnadu, India. Library professionals are using ICT tools that change the whole world into a global village.

9. Data Analysis and Interpretation

9.1. Demographic Information

n=2179

Variable	Category	Frequency	Percentage
Sex	Male	1361	62.46%
	Female	818	37.54%
	Others	-	-
Age Level	11-20	434	19.92%
	21-30	461	21.16%
	31-40	703	32.26%
	41-50	423	19.41%
	51-60	139	06.38%
	61 and above	19	00.87%
Education Level	Illiterate	-	-
	8th pass	47	02.16%
	10th pass	276	12.67%
	12th pass	1066	48.92%
	Graduation and above	790	36.25%

Table 1: Demographic information

It is inferred from the analysis that the majority of the respondents are male and belong to the age level of 31 to 40. Maximum users under study have an educational background of higher secondary level.

9.2 Computer and Smartphone Ownership

n=2179

Sl. No	Computer	User	Percentage	Smartphone	User	Percentage
01.	Yes	275	12.62%	Yes	2119	97.25%
02.	No	1904	87.38%	No	60	02.75%

Table 2: Computer and Smartphone ownership

From the analysis, it is inferred that only 12.62% of users have a computer of their own, but as far as smart phones in concerned, 97.25% of users have smart phones with them.

9.3 Computer literacy among the users

n=2179

Sl. No	Knowledge of Computer	No. of User	Percentage
01	Yes	1761	80.82%
02	No	418	19.18%

Table 3: Computer Literacy

From table no.2, we observed that 87.38% of users don't have a computer, but the maximum users (80.82%) have a knowledge of operating computers.

9.4 Purpose of using Computer

n=1761

Sl. No.	Purpose	No. of User	Percentage
01	Personal use	683	38.78%
02	Educational purpose	1597	90.69%
03	Official work	1102	62.58%
04	Entertainment	1365	77.51%

Table 4: Purpose of using computer

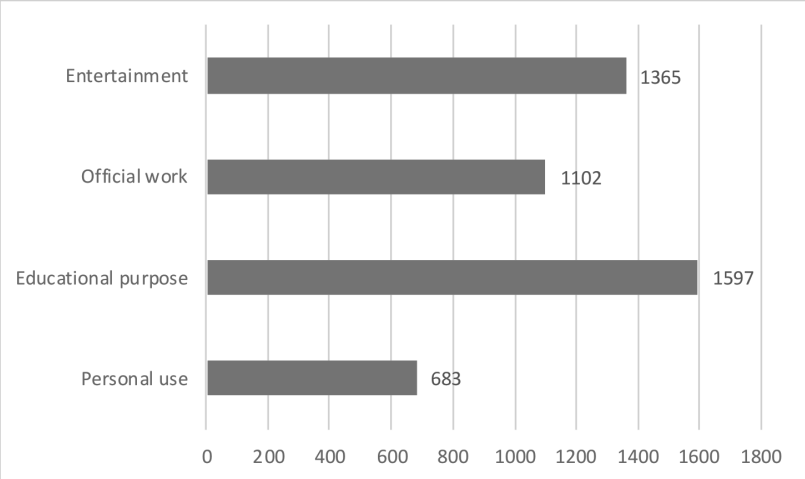

Fig. 1: Purpose of using Computer

According to the result of this study, among the 1761 users who have computer literacy, are using computers mainly for educational purposes as well as for entertainment, official, and personal purposes.

9.5 Computer usage level of users

n=1761

Sl. No	Usage level	No. of Users	Percentage
01	Excellent	174	09.88%
02	Good	1033	58.66%
03	Average	516	29.30%
04	Do not know the level	38	02.16%

Table 5: Computer usage level

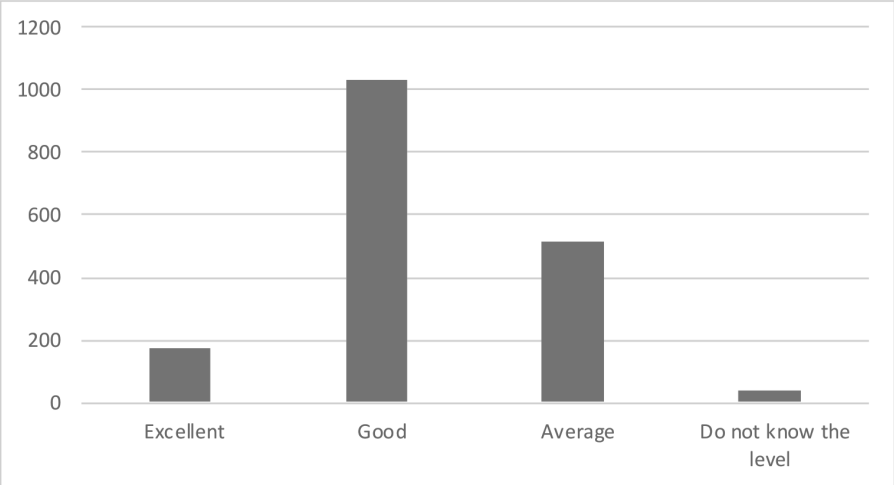

Fig 2: Level of computer knowledge

Among the users (1761) who have computer literacy, the maximum users (58.66%) are good in handling computer and 29.30% users have an average level of operating computer. The researcher uses a level matrix depending upon the fundamental skills of using computer, software proficiency and basic tasks performed by the user. Those with all the competencies fall under the level excellent, those with two basic competencies fall under the level good and those who have only one competency come under the level average. 38 users have responded that they did not know their level.

9.6 Internet searching skills of users:

n=2179

Sl. No	Searching skills	No. of user	Percentage
01	Excellent	183	08.40%
02	Good	1063	48.78%
03	Average	841	38.60%
04	Do not know the level	92	04.22%

Table 6: Internet Searching Skills

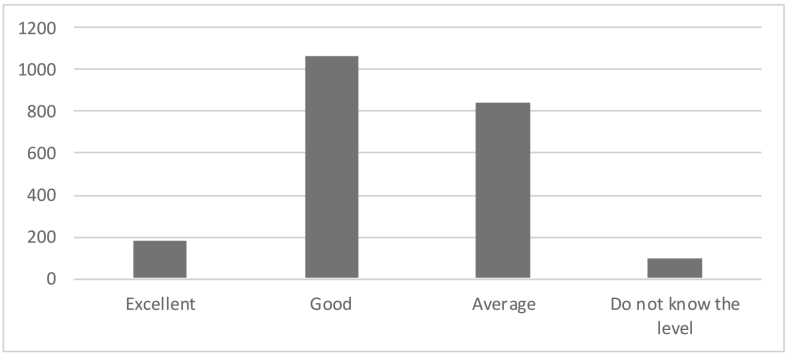

Fig 3: Internet searching skills

In today's society, the people even from the rural background have a knowledge of internet. Few respondents (418) do not have computer literacy (table no. 3), but they know internet searching mainly the use of Facebook and WhatsApp. In this study, it is inferred that 48.78% users have a good skill of internet handling and 38.60% users have an average level of knowledge of internet handling. Here the researcher uses a level matrix depending upon the average monthly mobile data usage for net surfing, basic technical skills of the users and web searching skills i.e. the ability to find, select and evaluate sources of information on the internet. Those with all the competencies fall under the level excellent, those with two basic competencies fall under the level good and those who have only one competency come under the level average. 92 users have responded that they did not know their level.

9.7 Daily internet usage:

n=2179

Sl. No	Daily internet usage	No. of users	Percentage
01	Up to 2 hrs.	547	25.10%
02	2 hrs. - 5 hrs.	1052	48.28%
03	More than 5 hrs.	580	26.62%

Table 7: Daily internet usage

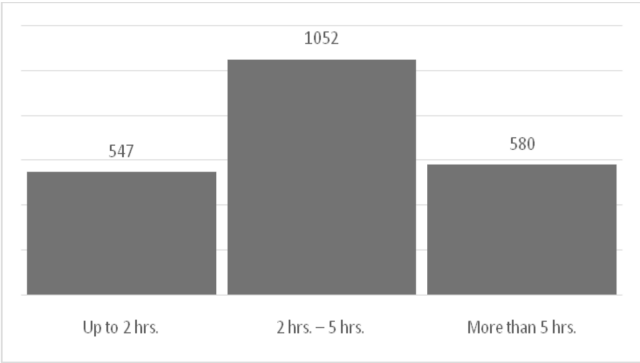

Fig 4: Daily internet usage

Maximum users (48.28%) under study use internet 2 to 5 hours in a day. 26.62% users use internet more than 5 hours in a day for different purposes.

9.8 Purpose of using internet:

n=2179

Sl. No	Internet usage purpose	No. of Users	Percentage
01	For searching information	1936	88.85%
02	Read newspaper	274	12.57%
03	For chatting	2129	97.71%
04	Listening music	1245	57.14%
05	Read e-books	05	00.23%
06	Use social network	2135	97.98%

Table 8: Internet usage purpose

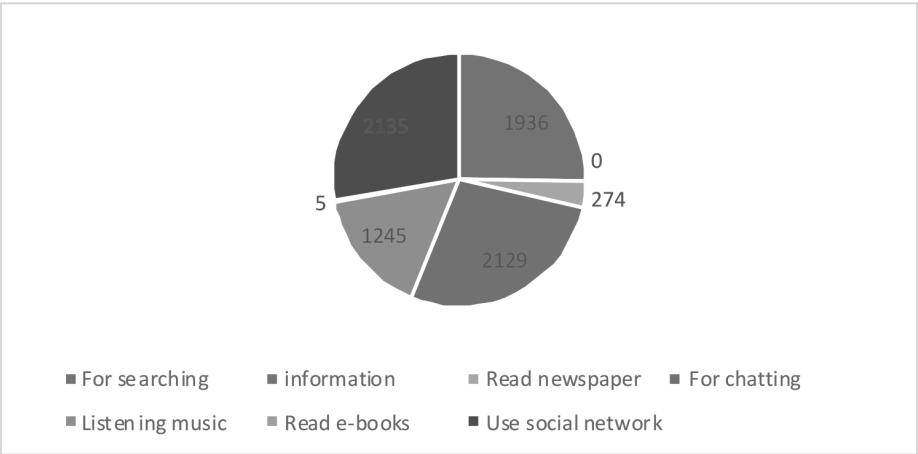

Fig 5: Internet usage purpose

Internet is an essential component of life now-a-day. The users under study used internet for different purposes like for chatting, for social networking, for searching information, listening music. But reading newspaper online and reading e-books is very rare among the users.

9.9 Purpose of Using Social Networking Sites:

n=2135

Sl. No.	Purpose	No. of Users	Percentage
01	Chatting	2117	99.16%
02	Recreation	2123	99.44%

Table 9: Social media usage purpose

Among the users who are familiar with social networks (2135), they are using this for recreation and for chatting purposes.

9.10 Users' connectivity with Social Networking Sites:

n=2135

Sl. No.	Social networking connectivity	No. of Users	Percentage
01	Excellent	335	15.69%
02	Good	1051	49.23%
03	Average	580	27.17%
04	Do not know the level	169	07.91%

Table 10: Social networking connectivity

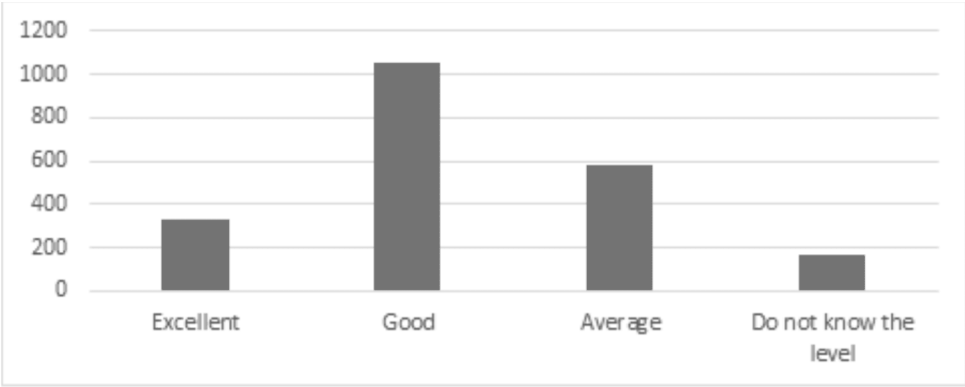

Fig 6: Social networking connectivity

From table no. 8 it is inferred that, 97.98% users of the study are familiar in using social networking and among them 49.23% are good in using different social networking sites, 27.17% have an average level of knowledge of social networking, 15.69% have an excellent level of knowledge of using social networks. Researcher uses a level matrix depending upon the frequency and interaction of the user, the quality of their interactions or communication skills and the information-sharing proficiency of the user. Those with all the competencies fall under the level excellent, those with two basic competencies fall under the level good and those who have only one competency come under the level average. 169 users have responded that they did not know their level.

9.11 Availability of Computer in the Library:

n=21

Sl. No.	Computer available in the library	No. of Library	Percentage
01	Yes	11	52.38%
02	No	10	47.62%

Table 11: Computer availability in the library

From the above table we observed that 11 public libraries out of 21 have computer either for the use of the library personnel or for the use of their users. 10 public libraries under study don't have any computer facility.

9.12 Reasons behind lack of computer literacy:

n=418

Sl. No.	Reasons	No. of Users	Percentage
01	Lack of proper guidance	247	59.09%
02	Time constraints	168	40.19%
03	Electricity supply	-	-
04	Educational background	03	00.72%

Table 12: Reasons behind lack of computer literacy

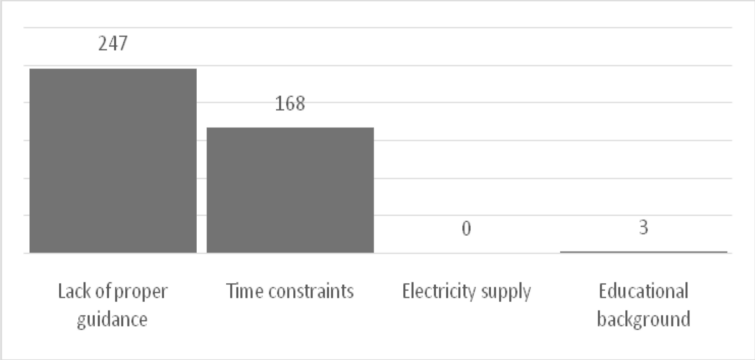

Fig 7: Reasons behind lack of computer literacy

Among 418 users who don't have any computer literacy, this is because of a lack of proper training and guidance. Time constraints are also an important factor behind the lack of computer literacy among users.

9.13 Problem faced by the respondents in using internet:

n=2179

Sl. No	Problem of using internet	No. of respondents	Percentage
01	Accessibility	1280	58.74%
02	Affordability	822	37.72%
03	Language	87	03.99%
04	Lack of time	66	03.03%
05	Lack of knowledge	369	16.93%
06	Strains to read	1213	55.67%

Table 13: Problem in using internet

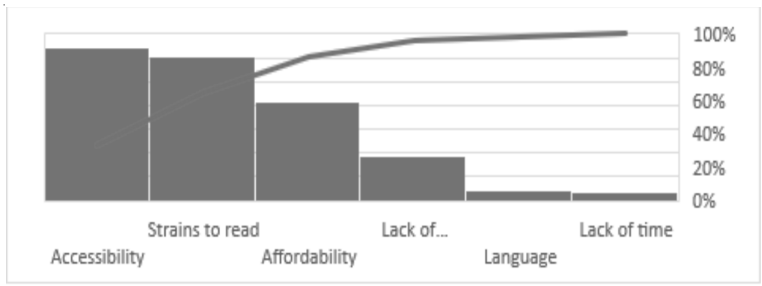

Fig 8: Problem in using internet

It is inferred from the analysis that accessibility is a vital issue faced by maximum respondents (58.74%) in using internet in Kalimpong district. Some users (55.67%) have a problem to read on screen for a longer time. Among a good number of users (37.72%) affordability is an issue in using internet. Lack of knowledge is also a factor in using internet.

10. Findings

- Majority of the users (58.66%) of public libraries of Kalimpong district are good in using computer (table 5) and maximum users (90.69%) are using computer for educational purposes (table 4).
- Maximum users (48.78%) are good about internet usage (table 6) and maximum users (48.28%) use internet 2-5 hours in a day (table 7). However, accessibility is an issue in using the internet (table 13).
- Almost all the users (97.98%) are familiar with social networking (table 8) and mainly they are using this for recreational and chatting purposes (table 9). 49.23% of users are very much familiar in using social networking (table 10).
- Main lacuna of public libraries in respect of digital literacy among users is unavailability of the computer and internet connection in the libraries for their users (table 11).
- Major constraints in using digital resources are lack of proper training (table 12).

11. Hypothesis Validation

Table of observed value:

Sl. No.	Digital Literacy Skills	User's feedback					
		Excellent	Good	Average	Do Not Know the level	Do Not Know the skill	Total
01	Computer Usage	174	1033	516	38	418	2179
02	Internet Usage	183	1063	841	92	-	2179
03	Social Media Usage	335	1051	580	169	44	2179

Table of Expected value:

Digital Literacy Skill	Users feedback				
	Excellent	Good	Average	Do Not Know the level	Do not know the Usage
Computer Usage	230.67	1049	645.667	99.67	154.00
Internet Usage	230.67	1049	645.667	99.67	154.00
Social Media Usage	230.67	1049	645.667	99.67	154.00

(E-O)2/E:

Digital Literacy Skill	Users feedback				
	Excellent	Good	Average	Do Not Know the level	Do not know the Usage
Computer Usage	13.921	0.24404	26.0404405	38.15496098	452.571429
Internet Usage	9.85019	0.18684	59.0941318	0.58974359	154
Social Media Usage	47.1912	0.00381	6.6785407	48.23188406	78.5714286

X2	935.3297
df	8
P-Value	0.0000

Result shows the significant association at 0.05 level of significance.
Hence the hypothesis i.e. H1= There is a significant association between the distribution of user's feedback and the digital literacy skills of the users, is proved true.

12. Suggestions and Recommendations

To tackle digital divide, public library should have computers and computer literacy program for their users.

Public libraries should take a step to arrange computer training programs for the users in eliminating digital divide from the society.

The analysis of the current study suggests that public libraries can foster synergy with different non-governmental organizations (NGOs).

The public libraries in cooperation with different NGOs, can organize training program for the users on handling of digital resources, training on usage of free e-resources which can be accessible through smartphones also (as most users have smartphones now-a-days).

13. Conclusion

In today's world, digital literacy is an essential skill for acquiring the required information and knowledge. The respondents are quite familiar with digital literacy on their own. The maximum users of public libraries in Kalimpong district demonstrate proficiency in using computers and utilizing these primarily for educational purposes. Internet usage among users is also notable, although accessibility remains a significant barrier. Social networking is highly familiar to almost all users, who predominantly engage in it for recreation and chatting. There is a big lacuna from the end of the public libraries as most of the public libraries don't have computers for their users. There is a need from the end of libraries to understand CSR (Corporate Social Responsibility) and they can approach different corporate bodies for digital resources.

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