

Research Article**Equal Opportunity towards Access to Information to the Differently-abled Persons: Present Scenario in University Libraries of West Bengal**

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Abstract

Purpose: The purpose of the study is to assess the university library services in respect of users with special needs.

Design/methodology/approach: The survey was conducted by administering questionnaires on library staff and users of 13 selected university libraries in West Bengal.

Findings: The study reveals dissatisfactory results in terms of disability support services.

Research Limitations: The scope of the present study is limited to 13 selected university libraries (out of total 17 Universities) located all over the state of West Bengal.

Practical Implications: Libraries are an integral part of any academic institution, unless there is an easy access to it, the students won't be able to completely reap the benefits of the educational system. This study will provide knowledge of making the library accessible to all.

Originality/value: People living with disabilities should be included in the system design that will facilitate universal accessibility and usability. It is hoped that the recommendations of this study will form a base for the Planners and Decision Makers and the Librarians as well as the Library Authority to frame the policies and programmes on further improvement of the services in universities in West Bengal.

Keyword: Assistive Technology, Differently-abled, Disability Support Services, Disabled, Hearing Impaired, Orthopaedically Challenged, Visually Impaired.

Article Type: Survey

1. Introduction: Everybody should enjoy equal opportunity to access information. People with disabilities are precluded from accessing or benefiting from mainstream educational programmes on account of physical, communication, transportation and attitudinal barriers. A loss of a facility certainly results in a limitation in the individual but such imitations can be overcome by developing proper skills in them and facilitate them with requisite alternate support. For example, the loss of visual experience in a blind person can be compensated by providing more tactile experiences. The communication problem of a hearing impaired person can be reduced by the application of total communication system involving sign language, lip reading and presentation of more visual information. The difficulties of a person with locomotor disability can be minimized by making the environment barrier-free, and the social behaviour of a mentally retarded child can be improved by mainstreaming and repetitive skill development. Therefore, skills can be developed in persons with disabilities to a large extent though the disability by nature certainly creates some limitations among individuals.

According to the Census 2001, there are 2.68 crore people with disabilities in India who constitute 2.21 per cent of the total population. This includes persons with visual, hearing, speech, locomotor and mental disabilities and, 49 per cent of disabled population comprises the visually impaired persons. Percentage of disabled persons in India has increased both in rural and urban areas during the last decade. Ministry of Human Resource Development, Department of Education in its 'Action Plan (of 2005) for Inclusive Education of Children and Youth with Disabilities' has mentioned education as a fundamental right to all. Affordable, accessible learning environment can ensure the inclusion of children and youth with disabilities in all available mainstream educational

settings. It is indeed a challenging task to provide educational facilities to this large number of differently-abled persons both in West Bengal and the entire country. Libraries should play a vital role to meet the basic educational needs of the visually challenged and also providing development oriented services for them to become educationally independent. This survey research was conducted to determine the present status of the use of Assistive Technology in selected university libraries in West Bengal to support these differently-abled users.

2. Objectives of the Study: The objectives of the study are-

- a) To study information availability and services provided for the differently-abled users in the universities.
- b) To examine the physical facilities and assistive aids available in the university libraries of West Bengal.
- c) To survey the users' opinions towards the available services in the university libraries under study.
- d) To determine the extent of use of the different assistive aids in the libraries under study.
- e) To identify the problems faced by the challenged users in the access of information products and services.
- f) To offer suggestions for effective management of various Assistive Devices in university libraries of West Bengal.
- g) To identify the future plans of the libraries to upgrade their services.

3. Research Methodologies: The scope of the present study is limited to 13 selected university libraries (out of total 17 Universities) located all over the state of West Bengal. The literature on Disability, Assistive devices and technology, University library services has been studied and reviewed which facilitated the construction of questionnaire (Cummings, 2011; Bhattacharya, 2013; NCPEDP Draft Indian Accessibility Standard). Based on the review of literature, two sets of structured questionnaires were prepared, one for the Libraries and the other for the users. It enabled to cross check the feasibilities among other issues.

A structured questionnaire has been designed to collect data from the professionals working in the universities selected for this study. The questionnaire for professionals has been administered to the 13 university libraries which were well established and the response was cent percent.

Based on the needs of the users, another structured questionnaire has been designed to collect data for users which include research Staff, Scholars, Project Assistants, and Students of sample universities. The questionnaire was administered among 100 students which include research scholars, Projects Assistants, Students pursuing their studies in 13 universities in West Bengal constituting as representative samples. The response rate was 100%.

Apart from the primary information, a huge amount of data has been collected by face to face interview and/or telephonic conversations with respondents.

4. Peoples with Differently-abled: People with special needs have either single or multiple functional disabilities which can create hindrances in their accessibility in day-to-day living. Disabilities can be as Mobility impairments, Blindness, Low vision, Hearing impairments, Neurological impairments and Specific learning disabilities.

Library is a pool of knowledge, whether is in form of physical library or digital library or both. Libraries have great impact on the education of people with special needs. Making library accessible is the first criteria for the growth of our society. Therefore everybody needs to access the library. To make it accessible for all it is necessary to consider the following areas.

- a) Physical Access to the Library
- b) Access to Resources of the Library
- c) Service and Communication

All of these should be made accessible with the help of Assistive aids. So libraries should adopt assistive devices and technologies to provide these users equal opportunity.

4.1 Assistive Technology: Assistive technologies (AT) play an important role in equalizing opportunities for people with disabilities in all aspects of life, since this technology can contribute to providing compensation for functional limitations and help tackle barriers in all types of environments. Assistive technologies refer to products, devices or equipments those are used to maintain, increase or improve the functional capabilities of people with disabilities. Assistive technologies can also be extremely important in the library field, since AT devices can enable people with disabilities to take advantage of traditional library resources and services.

4.2 Assistive aids for Patrons with blindness or Visual Impairments: Some of the important assistive aids for patrons with blindness or visual impairments are mentioned below-

a) Screen Magnification Software: Magnify the text on a computer screen to assist patrons who have low vision, e.g. ZoomText, Supernova, Vis-Ability, and Big Shot Magnifier.

b) Screen Reading Software: Enable blind or visually impaired individuals to access the information on a computer screen through voice output. JAWS and Window Eyes are the example of such types of software.

c) Braille Translator: Duxbury Braille Translating Software, program that works like a word processor and allows users to type text, and then translate it into Braille.

d) Braille Embosser: Similar to a printer, an embosser will print Grade II Braille on paper, enabling patrons to create hardcopies of documents.

e) Voice recognition Software: Programs like Dragon Naturally Speaking allow a user to dictate commands to the computer in order to operate PC itself.

f) Optical Character Recognition (OCR) software and a Speech Synthesizer: With this technology one can scan any sort of text into a computer and have it read back to them. An OCR system that includes a Voice Synthesizer is ZoomText. Documents are also used in **Alternate format**, such as, Braille Book, Large Print Book and Digital Talking Book.

4.3 Assistive aids for patrons with Hearing Impairments: Some of the assistive aids for patrons with hearing impairments are mentioned below-

a) Assistive listening devices (ALDs): It helps amplify the sounds according to the requirement of the individual. Several types of ALDs are available to improve sound transmission for people with hearing loss, e.g. Induction loop system, Sound amplification system.

b) Augmentative and Alternative Communication (AAC): The AAC devices help people with communication disorders to express themselves. These devices can range from a simple picture board to a computer program that synthesizes speech from text. The simplest AAC device are picture board or touch screen, TTY or TTD machine. Computer software like Dragon Dictate, Big Mac, Cheap Talker are the examples of AAC aids. Different Sign languages also helps to communicate with hearing impaired.

c) Alerting devices: Alternative devices connect to a doorbell, telephone, or alarm that emits a blinking light to let someone with hearing loss know that an event is taking place. Alerting or alarm devices use sound, light, vibrations, or a combination of these techniques to let someone know when a particular event is occurring.

4.4 Tools for Assisting Patrons with Learning Differences: Specialized software programs and hardware for patrons who have learning differences will display print as well as provide auditory reading of the text.

a) Kurzweil 3000 and WYNN Wizard: These programs increase reading speed and comprehension through simultaneous spoken word and highlighting of text.

b) Read & Write Gold: It is a program that provides comprehensive and complete reading and writing support for those with literacy or learning difficulties.

4.5 Tools for Assisting Patrons with Physical Disabilities: Persons with physical disabilities may need assistance in doing some of the physical tasks. Persons having problem in mobility usually use wheelchair, crutch and walker as mobility device. Reading table height and computer monitor position should be adjustable. Special input devices such as trackballs, joysticks, switches, touch pads, and augmented keyboards may increase computer usability.

a) Madentec Tracker: Users wear a tiny reflective dot on the forehead or glasses. A computer camera/tracker allows users to manipulate the cursor through head movement.

b) Softype: Softype is a software utility that replaces the functionality of a standard keyboard with a full-featured, onscreen keyboard.

4.6 Physical Access: It is great to provide the books and resources in an accessible format, in a similar fashion it is important to ensure there is convenient physical access to the library facilities. Some basic components that may require consideration are:

a) Parking and Accessible Pathway: Reserved parking may be designated and designed as per accessibility guidelines closest to the entrance of the library to enable people with mobility impairments to reach the library without having to walk much.

b) Entrance: The entrance of the library must be easy to identify by people with vision and cognitive impairments. There must be a step free route leading to the library for the benefit of mobility impaired persons.

c) Internal Circulation: All circulation routes need to be wide enough and step free to allow easy motion by mobility impaired and visually impaired persons. Circulation desk should be wide enough and at of comfortable height for wheelchair bound users.

d) Accessible Furniture: Design and height of all tables whether they are used at the staff desks or for reading by patrons, are important to be looked at to ensure people with mobility impairments are able to use them easily. Also important are the book stacks, their height and placement. It may be useful to have chairs of varying design and seating heights with a couple with armrests and some without to facilitate persons who may have problems standing from a sitting position.

e) Toilet: Every library must have at least one toilet adapted for disabled persons. This toilet needs to be larger in area with a wider door entrance, to accommodate people using wheelchairs. The heights of sanitary fixtures should be suitably modified

f) Signage: Appropriately designed signage and way finding system must be put from the main gate to all sections of the library. Special sign board like Pictorial, text, Braille sign-boards should be set up.

g) Emergency Evacuation: Evacuation should have alarm systems that are both audible and visual, having refuge areas identified with wheelchair waiting spaces, having exit step free exit routes etc may be important to have to ensure safety of disabled patrons.

5. Data Presentation and Analysis: The Government of India and UGC have endorsed some guidelines. The main objective behind this is “access for all”. Libraries are an integral part of any academic institution, unless there is an easy access to it, the students won’t be able to completely reap the benefits of the educational system.

The primary aim of university education is to cater to the needs of those who are interested to higher learning and research. No university can function effectively without a well equipped and well organized library at its centre. In West Bengal, there are seventeen universities that manage higher education and each university has its own university library. Thirteen major university libraries in West Bengal under study with respect to the use of assistive aids to support the differently-abled users and the changes and improvements in these areas for the last 5 years as per the first objective of the study is presented in this paper. The data collected for this study are mainly from the head of the respective university libraries and disable users. Interviews had done with the respondents through a well-structured questionnaire. Collected data are arranged in structured formats and analyse on the basis of certain parameters. Summary of findings of the study and areas suggested for further research are discussed hereunder:

5.1 Distribution of Differently-abled users: One of the shocking fact is that library do not maintain any data regarding disable users. A total sample of 85 respondents was identified during the study and all of them were interviewed for data collection. Table 1 shows the institution wise distribution of disable users. Except few newly set up universities all of the universities have significant number of differently-abled users. Below data reveals that Rabindra Bharati University possess highest number disable users (22). Following it are, Calcutta University (13), BESU (12), NBU (9), JU (7), VBU (4) etc. Here in this study, disabled are categorized into four categories, namely, Visual Impaired, Hearing Impaired, Orthopaedically Challenged and Learning Disable. Data shows that among the 85 respondents 44 (52%) were Visually Impaired, 02 were Hearing impaired and 39 were orthopaedically challenged. None of the learning disable was found in any of the studied University. More than half of the population was visually impaired, next dominant category was orthopaedically challenged; only 2% hearing impaired respondents were identified. It was observed that visually impaired and orthopaedically challenged were identified in naked eyes. But cases are not same for hearing impaired. Most of the cases they hide their identity due to social reasons.

Table 1: Institution wise distribution of Disable Users

N.B. Data of user strength given above were retrieved either from the respective university websites or through verbal communication with library staff.

Name of the University	User Strength				No. of disable User Found			
	Student	Research Scholar	Staff	Total	Student	Research Scholar	Staff	Total
CU	6000	550	532	7082	13			13
PU				2350	01		01	02
JU	8383	690	639	9712	07			07
RBU	11201	314	292	11807	22			22
BESU	2500		670	3170	12			12
WBUT	456	20	150	626	01			01
NUJS				2200	02			02
WBSU				1700	00			00
KU	900	114	43	1057	04			04
VU	3537	140	335	4012	07			07
BU	4000	452	905	5357	02	01	01	04
VBU				4000	06			06
NBU	1703	210	400	2313	09			09

Chart 1: Category wise distribution of Disabled students among Universities

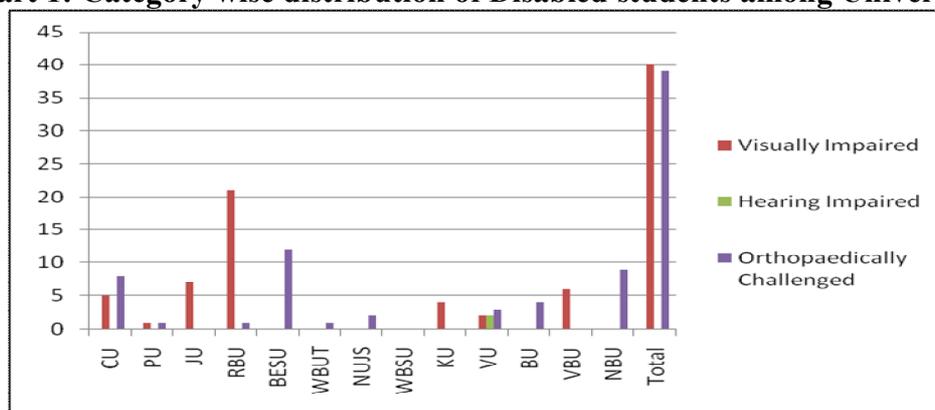
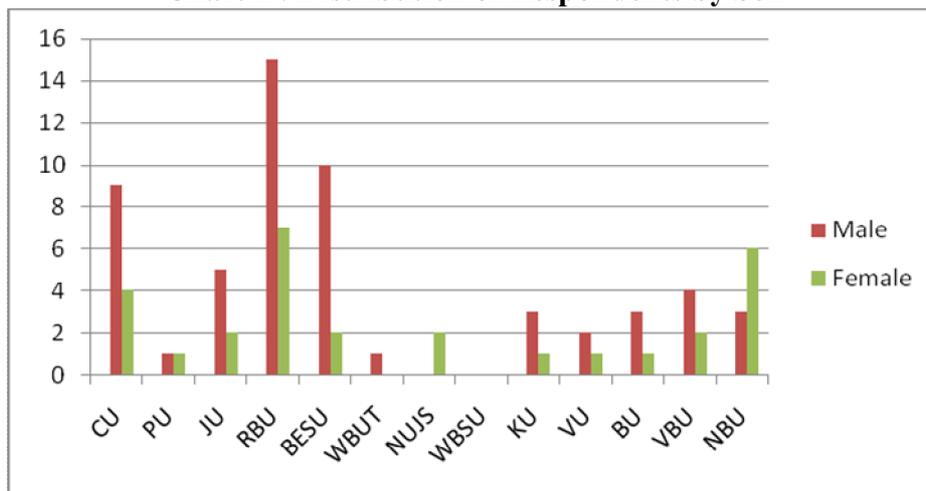


Chart 2 : Distribution of Respondents by Sex



The result shows that the total 85 (100%) library users were responded about the questionnaire issued to them. The library users include undergraduate and post-graduate students, Scholars, Teachers and staff of the institutions. Out of this population male was 57 (67%) and female was 28 (33%). Since the majority of the users were male, slight male dominancy has been seen in the sample.

5.2 Distribution of Assistive aids among Universities: Every university library should have compulsory disability support services. But most of the universities in this study do not have requisite support for them. Only three among the thirteen universities (<25%) have specific cell(s) for visually impaired users. They only provide Screen Reading Software, Recording Software and Braille Translating Software. Few Braille Book, talking Book and Large Print Books are also with them. It was found that among these three universities the University of Calcutta and Visva Bharati University are little more organized than other in terms of collection and assistive software.

Data reveals that there is very little arrangement for Hearing Impaired Users. Only 3 universities (CU, JU and VBU) provide headphone as amplification system and they are installed in computer lab only. As per the basic structure all of the universities provide noise free reading room. None of the university has installed induction loop at reading room or reference section, do not provide video material with subtitle or with sign language. Most shocking fact is that none of the university has Audio-visual alarming system during emergency.

Survey reveals that University Libraries are not concerned about learning disabled. The actual situation is same because either they are absent in higher education or not identified. Their presence or absence does not matter to provide assistive aids for learning disabled and library do not provide any facilities for such type of disabled.

Table 2: Distribution of Assistive technology for Differently-abled

Name of the University	Magnifier Software	Screen Reading Software	Recording Software	Braille Translating Software	Talking Software	Talking Book	Web	Keyboard with hio	Braille Note-	Talking Book	Braille Book	Large Print Book
CU		JAWS	DAISY, SOUND-FORCE 9		AMIS					Yes	Yes	Yes
PU												
JU		JAWS								Yes		

RBU													
BESU													
WBUT													
NUJS													
WBSU													
KU													
VU													
BU													
VBU	Supernova	JAWS		Duxbury				Yes	Yes	Yes	Yes	Yes	Yes
NBU													

5.3 Physical Access Facility: University library staffs and users were asked about the layout of the library buildings that allow people with special needs to access the information resources housed in the library. Most of the responses were negative. Out of 98 (85 User +13 Library Staff) respondents, 92 (94%) respondents responded negatively and 06 (6%) responded positively. 94% respondents expressed that the layout of the library buildings are not congenial to people with special needs to access information resources housed in the library.

For all the universities under study, 85% have sufficient parking spaces but are not maintained properly, i.e., not reserved for differently abled and not marked with any signage. 61% universities have good conditioned ramp and walkway within the library, only 15% have average conditioned and 24% are without Ramp. Most of the cases (85%) the studied universities have average conditioned Entrance and Exit. In 15% universities the Entrance and Exit does not support the disable users. Five of them (38%) have no functioning lifts which enable people with visual impairments and in wheelchairs to reach upper floors where information resources or services are located. 47% universities have good conditioned lift whereas in 15 universities lift is absent because the library is limited to ground floor only. None of the studied library provides the restroom for differently-abled users. 92% of the studied universities have installed water fountain in library premises but these are not sufficient and most of the cases standards are not followed for wheelchair bound users. In all of the studied universities furniture of reading room, stack, and reference section are not suitable for wheel-chair bound or other type of disable users. They only provide personal assistance to retrieve required documents. Only two of the studied universities have average conditioned adapted toilet for wheel-chair bound users. None of the university has any signage to guide the differently-abled users. It was observed that the library buildings in most cases are unsuitable for the mobility needs of people with visual impairments and in wheelchair. These arrangements restrict them from easy movement.

Table 3: Institution wise building accessibility facilities and their condition

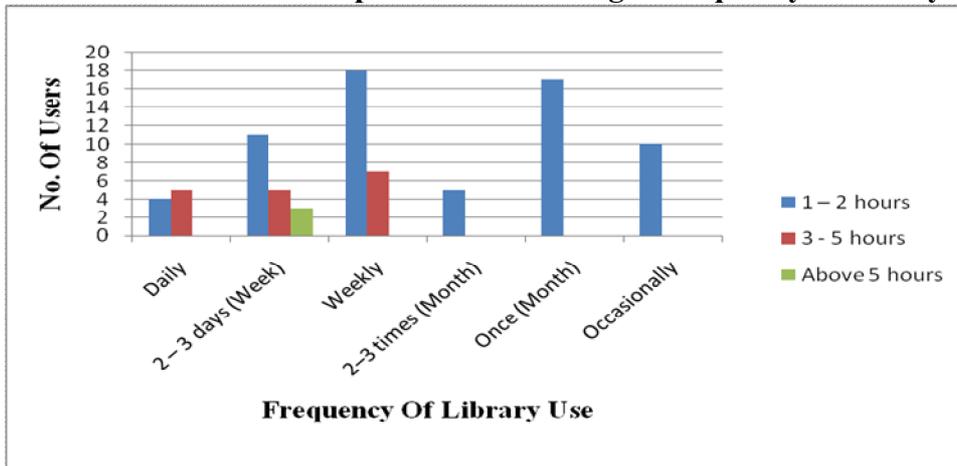
0 – Absent, 3 – Good, 2 – Average, 1 – Bad

Name of the University	Parking	Ramp and Walkway	Entrance & Exit	Stairs & Steps	Lift	Rest Room	Water Fountain	Furniture	Adapted Toilet	Signage
CU	2	3	2	2	2	0	2	1	0	0
PU	3	3	2	2	3	0	2	1	0	0
JU	3	2	2	2	3	0	2	1	2	0
RBU	3	3	2	2	3	0	2	1	0	0
BESU	3	3	2	2	0	0	2	1	2	0
WBUT	2	3	2	2	3	0	2	1	0	0
NUJS	3	0	2	2	NA	0	2	1	0	0
WBSU	3	0	2	2	NA	0	0	1	0	0

KU	3	0	1	2	0	0	2	1	0	0
VU	3	2	1	2	0	0	2	1	0	0
BU	3	3	2	2	0	0	2	1	0	0
VBU	3	3	2	2	3	0	2	1	1	0
NBU	3	3	2	2	0	0	2	1	0	0

5.4 Frequency of Library Use: The term library usage refers to user’s use and non-use of the library, their visit to the library and extent to which the facilities, collection and services are used or are not used. Library usage is defined in this study as frequency of use of the library; the time spent in the library; item borrowed; the kinds and number of question asked; and the hours spent in the library. Chart 3 shows that only 28 (33%) respondents come to the library regularly. Rest 57 (67%) respondents come occasionally, i.e. once in a week or in a month. Data also reveals that 05 respondents spent 3-5 hours daily, 05 respondents spent 3-5 hours twice or thrice in a week, only 03 respondents spent more than five hours in a single visit. It reflects that there are unavailability of appropriate resources and proper infrastructure which restrict the people with disabilities from frequent usage.

Chart 3: Distribution of respondents according to frequency of library use



5.5 Existing Library Policies and Level of Interest for Future Development: A similar question, about whether they had policy relating to library services provision for people with disabilities, was asked to the staff. Ten (77%) responded negatively whereas three (23%) responded positively. Those who responded negatively indicated that there was no policy and they explained that currently there were no plans to formulate any policy regarding library services provision for such users. Respondents who indicated a positive response stated that there must be some clear policies to support the disabled and an initiative to formulate a policy regarding library services was underway.

Chart 4: Response regarding implementation of library policy

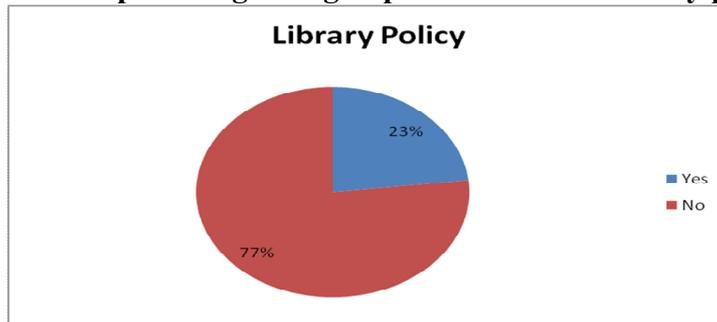
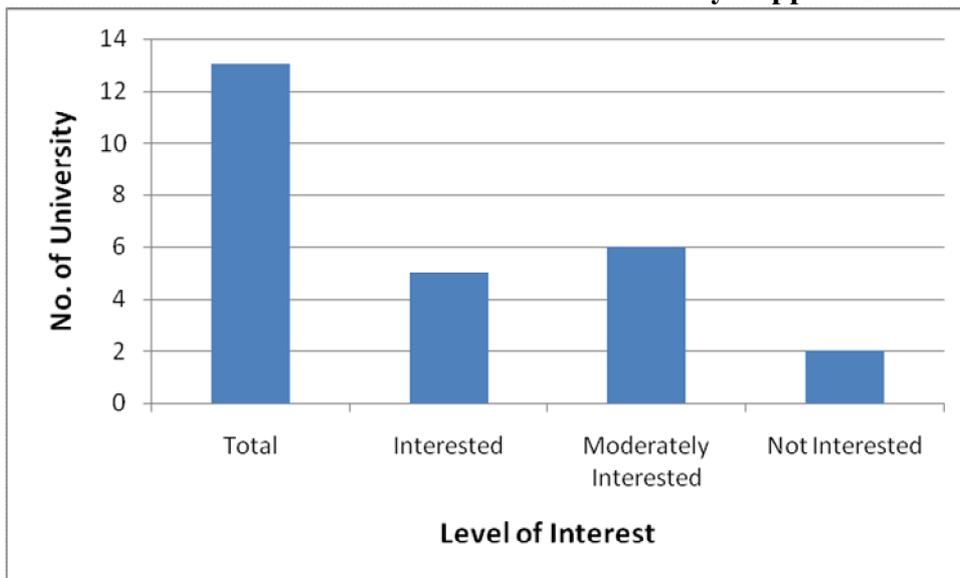


Chart 5: Level of interest of Librarian for Disability Support Services



Above table shows that among the 13 studied universities in West Bengal only 5 universities (39%) are willing to implement disability support services in university library, 6 Universities (46%) are moderately interested in this matter whereas 2 universities (15%) have no interest to take the responsibility.

5.6 Staff Awareness and User Satisfaction: Staffs of the studied universities do not have adequate knowledge regarding disability support services. Below mentioned seven questions were asked to the respondents. Most of the cases they responded negatively. Study reveals that in 69% libraries staff know the disability issues in library. Among them only 31% library staffs are aware of the use of Assistive Technology for supporting differently-abled. 23% library staffs have some training on disability support services and they possess moderate knowledge on policies, procedure and services for disable users. They also have knowledge on the related organizations who provide products and services for disabled. 77% library staffs do not possess any knowledge on this type of services.

Data reveals that only three universities (CU, JU, VBU) are having Braille section. The staff member of those are getting short-term training and orientation program at short interval conducted by NGOs but library staffs are not included into such exercises.

Table 4: Staff’s awareness regarding disability support services

Attribute	CU	PU	JU	RBU	BESU	WBUT	NUJS	WBSU	KU	VU	BU	VBU	NBU
Is aware of disability issue?	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	yes	Yes
Are the staffs aware of use of Assistive Technology?	Yes	No	Yes	No	No	No	No	No	No	yes	No	Yes	No
Are the staffs aware of policies & procedure for providing	Not Much	No	Not Much	No	No	No	No	No	No	No	No	Not Much	No

services to disable patrons?													
Are the staffs aware of services provided for people with disabilities?	Not Much	No	Not Much	No	Not Much	No							
Are the staffs aware of current terminology relating to disability?	Not Much	No	Not Much	No	Not Much	No							
Are the staffs well trained to provide support services?	Not Much	No	Not Much	No	Not Much	No							
Are the staff has knowledge about the different organizations which provide services & products for disable?	Not Much	No	Not Much	No	Not Much	No							

Table 5: User Satisfaction in terms of library services

Attribute	Always	Mostly	Sometime	Never
Library staff treats me fairly and without discrimination	95%	05%		
Library staffs behaves friendly	95%	05%		
Library staff responds to my enquiries in appropriate time and attention.	60%	40%		
Library staff provides accurate answer		10%	35%	55%
Library staff provides quality services			12%	88%
Library staff responds clearly and accurately to enquiries	07%	07%	22%	64%
Library staff does what they say			03%	97%
Are you able to access the assistive aids?			22%	78%
Resources are appropriate and up-to-date			07%	93%

An effective user satisfaction can be measured using few parameters and through observations. These usually include factors like service promptness, staff responsiveness, and understanding of the customer’s problem. Above result shows that 95% of respondents said that they are treat cordially and got friendly behaviour. 60% respondents feel that library staff responds

to their enquiries in appropriate time. Only 10% feel that they are getting accurate answers from library staffs and only 12% feel that library staff provides quality service. Only 3% respondents feel that library staffs do what they said. 22% respondents said that they are using Assistive aids in library and 93% said that resources are not appropriate for them.

6. Research Finding: The majority of universities in West Bengal focuses on normal users and conventional services. They even treat the partially disable students as normal user. Out of 2 million disable population in West Bengal only 0.015% students are registered in University Education. Among them only 40% students regularly visit the library.

In the surveyed 13 universities only 3 universities have different cell for blind / visually impaired users and 1 university has started to build a different section for visually impaired. All these cells are run by university with the collaboration of NGO and all are at initial stage. These three universities are concerned about visual impaired only and they do not provide any assistive aids for other type of disabled users. They treat them as normal user and if needed, only provide personal assistance as per staff availability.

Institution wise distribution of disabled users shows that every university has differently-abled users. Though the number of disable users are not increased proportionately. But there is sufficient ground to set up disability support services in each and every library which could encourage the people with special needs in higher education. One of the main problems to make a comment on actual number of disable users is that the library do not maintained any data for differently-abled users.

From the distribution of respondents it is found that visually impaired and physically challenged are more abundant in universities than rest of the categories. It is also found that number of male is much higher than female. From the above study it is also clear that differently-abled male is much interested in higher education than their female counterpart.

Most of the respondents are not come to the library regularly. Most of them come either once in a week or month and spend maximum one or two hours. Results indicate that there are lacks of infrastructure which discourage them to come to the library regularly. Observation reveals that physically challenged and hearing impaired users spend much time in the library and they are using the library like a normal user.

Only 85% University have parking space in front of library building but no reserved area for disable users. 70% library have ramp at the entrance, 47% have lift, and only 15% libraries have adapted toilet for Wheel-chair bound users. Only three universities have different cell for visually impaired users and all of them have very little number of assistive software and minimum collection of documents in alternative formats. It was observed that due to lack of proper infrastructure and assistive aids the disabled students are afraid to take admission at higher studies and most of the disable students are registered themselves in arts subjects.

Users are not satisfied over the services provided to them. They feel that library staffs behave friendly and fairly with them. But from the qualitative perspective library service are not too good. Resources are not in required formats and sufficient assistive aids are not installed in the library. Library staffs do not possess sufficient knowledge on disability support services. Most of them are aware of disability issues in library service but are not sincere to implement the same. They even not participated in any training or orientation programs in this regard. Only 39% universities have shown their interest in disability support services.

Moreover, lack of funds is often used as a reason not to upgrade facilities. However, the disability support services are not simply a matter of spending money on purchasing equipments. It is also a matter of improving the user's experience of library services. Since the library staff interact with users, their attitudes have to be change in way to understand the needs of user's experiences and how to make these available to those users. Majority of library staff do not have positive attitude.

Library services for people with special needs are significantly lacking in West Bengal. In a similar way, it is observed that, for a large majority of people with disabilities, public facilities,

transport, training, working opportunities, communication and access to information are unavailable or inaccessible. Library and information services to people with special needs are almost non-existent.

7. Suggestions: In the light of the findings, the discussion, and limitation of this study, the following recommendations are made:

- a) It is very clear that disabled students are not benefiting from the ongoing technological revolution. The library authority and the university management should ensure that the benefits of the new technology should not bypass disabled students.
- b) Each library should establish a committee headed by a senior academic librarian to ensure that disabled users are not discriminated against.
- c) The library should maintain a list of people eligible for special services.
- d) Library staff and librarians should be oriented to ensure that no one is discriminated against in terms of provision of access to all library resources.
- e) The existing library facilities should be redesigned and modified with new technologies so as to enable mobility-challenged users to effectively and efficiently use library resources.
- f) Websites of universities must include information regarding disability support services. So that disabled users can get useful information from there.
- i) Library schools should incorporate disability issues into syllabus and try to provide education to future librarians about special population.

8. Conclusion: Despite all the attempts of the government to develop the overall condition of the disabled persons in general and their educational level in particular, their achievement in educational level is not satisfactory. A study conducted by the National Centre for Promotion of Employment for Disabled People (NCPEDP) available at <http://www.ncpedp.org/eductn/ed-resrch.htm> disclosed shocking facts of discrimination against those with disabilities. Data shows that only 0.1% (1635) of disabled persons has been enrolled in higher educational institutions. In many parts of the world including India, this is still the case where institutions of higher education purport to provide equal access and reasonable accommodations, disabled students still face discriminatory policies and practices.

People with disabilities are precluded from accessing or benefiting from mainstream educational, vocational training, employment and self-employment and income generation programmes on account of physical, communication, transportation and attitudinal barriers. Many of the educational institutions are situated in the urban areas and the illiterate rural masses do not have access to them. The administration has failed to create awareness among the rural people to send their disabled family members to educational institutions. At the same time, most of the institutions to a large extent lack the necessary infrastructural development, assistive technological support and more importantly well trained support staff.

One of the reasons was lack of sufficient numbers of students with documented disabilities and, secondly, the scheme was never publicized enough for institutions to apply. Technical and professional education, which is governed by All India Council for Technical Education (AICTE), did not have any such scheme for physically handicapped meritorious students. This is partly because of the popular perception of disability and technical/professional education not going together and most importantly in all institution, students with disabilities coped with lack of support on their own.

Lastly, it is hoped that the recommendations of this study will form a base for the Planners and Decision Makers and the Librarians as well as the Library Authority to frame the policies and programmes on further improvement of the services in universities in West Bengal.

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Upcoming Events

One Day Practical Sketchy Course on Advance Online Search.

Organized By: MAEER's MITSOM Library, Pune, Maharashtra.

Venue: MAEER's MITSOM Library, Pune, Maharashtra.

Last Date for Registration: 7th August 2015.

Registration Fee: Rs.400/-; Spot Registration Rs.500/-.

Event Dates: 8th August 2015.

Contact Person: Nitin Shantaram Joshi. Phone: 020-30273597.

Web: <http://goo.gl/CS0UjS>

National Conference on “Ethics, Copyrights and Plagiarism in Research & Publications”.

Organized By: The Society for Social Development and Peoples Action and Central Council for Research in Homeopathy, Dept. of Ayush, Ministry of Health and Family Welfare, Govt. of India.

Venue: Janakpuri, D Block, New Delhi.

Registration Fee: Rs.700/-

Event Dates: 8th August 2015.

Contact Person: Dr. Somen Chakraborty, Coordinator. Mobile: + 91 98111 04776. Email: sdpa.conference@gmail.com

Web: <http://goo.gl/KiyREk>

National Seminar on Role of Libraries to Educate Down Trodden Society in the Present Day Scenario.

Organized By: Babasaheb Bhimrao Ambedkar University, Lucknow.

Venue: BabasahebBhimrao Ambedkar University, Rai Bareli Road, Lucknow.

Last Date for Submission of Paper: 31st July 2015.

Last Date for Registration: 6th August 2015.

Registration Fee: ₹ 500/-

Event Dates: 9th August, 2015.

Contact Person: Prof. K. L. Mahawar. Mobile: +9194543 60635. Email: nsrledts@gmail.com.

Web: <http://goo.gl/1h5V5T>

One day Seminar on “The Impact of Digital Technology on Academic Libraries”.

Organized By: Dept. of Library, Vivekanand Mahavidyalaya Bhadrawati, Chandrapur, Maharashtra in collaboration with NUCLA.