



**STUDY OF PHYSICAL RESOURCES BEING PROVIDED TO THE
SPECIAL STUDENTS USING EDUCATIONAL DATA MINING
(with special reference to J.R.D. University, Chitrakoot)**

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Abstract

There are many institutes working in the field of Special Education in India, out of which four national institutes are established. There are very few non-governmental organizations working for Special Students (divyangjan) in the field of higher education in India, one of which is established in Chitrakoot. J.R.D. University, Chitrakoot (UP) was established in 2001 by Jagadguru Swami Rambhadracharya Ji Maharaj, who himself is a visually impaired person. The main objective of the University is to provide higher and professional education to the Special Students (divyangjan) only.

In this study data collection was done from the students of J.R.D. University, Chitrakoot. Mainly three types of special students are studying in the University, locomotor disabled, visually impaired and hearing impaired. Data collected from the students of the various postgraduate, undergraduate and diploma courses running by the University.

Introduction

The only thing that grants people respect and prestige in society is education. Due to the numerous obstacles that Divyang people must overcome on their own, education is all the more important to them. Through education, the disabled can integrate into society and lead respectable lives.

There are numerous educational facilities in India that cater to the needs of students with disabilities. However, it becomes crucial to ask if those with disabilities are receiving an appropriate education. Is there a campus that is barrier-free? Whether the education provided to them is appropriate for both their future and their disability? Whether the materials being used for instruction are effective for students with special needs?

The way University educate the differently-abled, as well as how physical resources should be provided to the differently-abled, should be considered in light of the aforementioned factors. In order to determine whether the University is giving impaired students a quality physical resources, this research is being conducted, and a model is being developed.

Data Collection and Pre-processing

Data collection is the process of meeting and measuring information on various variables of concern. There are various techniques that can be used to collect data in a quantitative research study. Data collection is concerned with the accurate acquisition of data. Actual data collection is much meaningful to make certain the research integrity. In this study two

methods are used for the collection of data; one is for primary data collection and another for secondary data collection.

In the study the respondents are physically disabled (divyang) person. These respondents are the students who are enrolled in different streams in JRD University, Chitrakoot Uttar Pradesh. The different subject's streams wise of respondents are 100 which belongs from Arts & humanities, management, education, and computer application.

Table 1: Data Sample

	<u>Locomotor Disable</u>	<u>Visually Impaired</u>	<u>Hearing Impaired</u>
UG -	26 Students	22 Students	22 Students
PG -	10 Students	10 Students	10 Students

The process of data cleaning is used to verify inaccurate, incomplete or unreasonable data and then get better quality. Data cleaning is the process of detecting and removing corrupt or inaccurate data from a data set, table or database.

SN	Name of the Student	Class	Age	Dis.	Dis. %	RESOL			
						Q4	Q15	Q16	Q17
1	AJAY KUMAR BIND	M.Ed.	32	OH	80	5	4	4	3
2	AKHILESH KUMAR	B.Ed.	29	OH	40	5	5	5	5
3	ANIL KUMAR YADAV	M.Ed.	30	OH	60	4	4	4	4
4	ANJU SINGH	M.Ed.	30	OH	50	5	4	4	3
5	ARVIND KUMAR	M.Ed.	27	OH	60	5	5	5	4
6	ASHOK KUMAR	M.Ed.	29	OH	70	5	4	5	5
7	DHARMENDRA TIWARI	M.Ed.	29	VI	100	4	4	4	4
8	MANOJ KUMAR RAI	M.Ed.	24	OH	60	5	5	5	2
9	BRJESH KUMAR	M.Ed.	28	OH	60	5	5	5	2
10	DHEERENDRA KUMAR PANDEY	M.Ed.	28	OH	60	5	4	5	3
11	SHUSHIL KUMAR	M.Ed.	30	VI	100	5	5	4	3
12	GEETA DEVI	M.Ed.	24	OH	70	4	4	4	4
13	KAMLESH KUMAR	M.Ed.	24	OH	70	4	4	4	4
14	MADHURI SINGH	B.Ed.	22	OH	40	4	3	4	4
15	KM NEHA	B.Ed.	23	VI	100	4	4	4	2
16	PRABHU DAYAL	M.Ed.	29	VI	100	4	5	4	3
17	KAMILA DEVI	M.Ed.	25	OH	50	5	1	5	4
18	DHEERAJ KUMAR	M.Ed.	28	OH	60	1	5	5	4
19	KM RANJEETA DEVI	M.Ed.	26	OH	80	5	4	3	4
20	KM SULEKHA JAISWAL	B.Ed.	24	OH	80	3	4	4	4
21	MADAN LAL	M.Ed.	28	OH	60	4	5	4	4

Figure 1: Snapshot of collected data

Analysis of the Collected Data

Data modelling refers to a collection of processes in which several sets of data are jointly analysed to discover relationships or patterns. Separating data into training and testing sets is a main part to evaluate models for data mining. Usually, when we split a data set into a training set & testing set, a big amount of data is used for training, and a small section of the data is used for testing. A training data set is used to uncover potentially projective relationships. A test data set is used to measure the strength and utility of a projective relationship.

For modelling of research data obtained from above processes, curve fitting tools of MATLAB is used. Curve fitting is used to construct a curve, or mathematical function that has the best fit property to a series of data points. Curve fitting look at the relationships among one or more predictors and a response variable, with the purpose of finding a "best fit" model of the relationship. In the study, after applying Genetic Algorithm using MATLAB, it gives the optimum solution and the best fitted equation for particular indicator

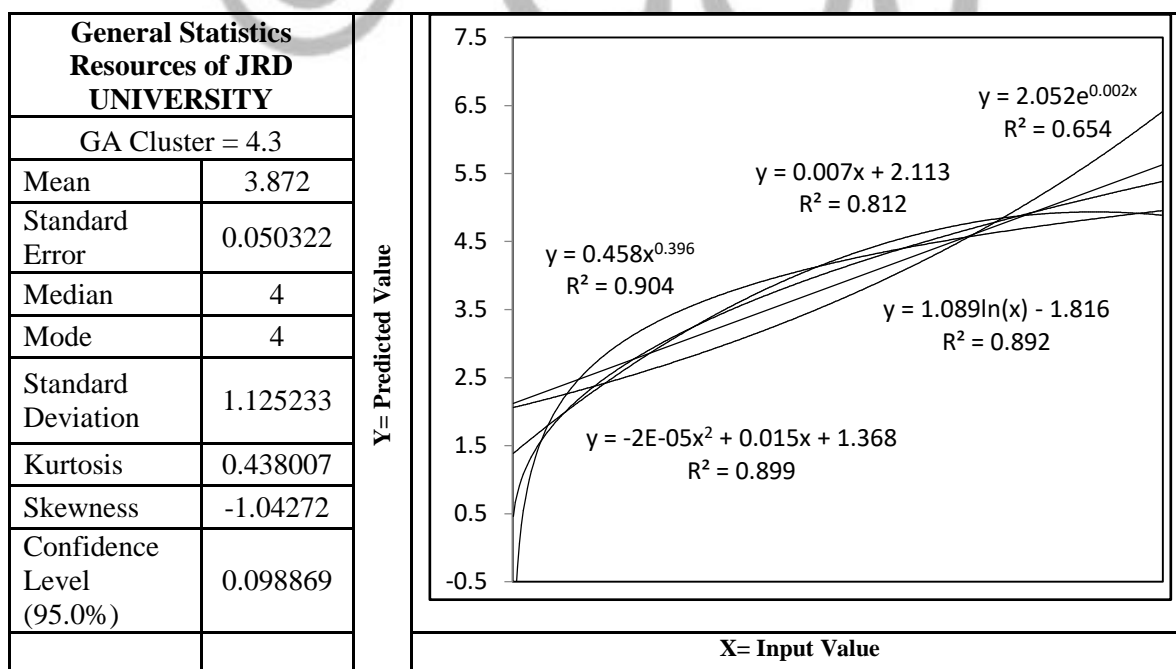
Results and Discussion

Students with physical disabilities required the use of braces, a cane or a wheelchair. Visual impairment and Hearing impairment conditions can prevent students from managing or utilizing conventional classroom materials and tools. Students with cognitive disabilities may suffer from remembering things, self-expression, information processing and other learning disabilities that prevent students from performing their educational tasks. Students suffering from chronic conditions often experience difficulty attending class regularly. To strengthen such special students cognitive, physical, psychiatric, physical and sensory disabilities tools are provided by JRD University. Application of computer-based technology trained by JRD University has created a sea change in available options for disabled (divyang) students, ending the isolation and limited opportunities disabled (divyang) students have long faced.

The study suggested that to teach the students with various disabilities, teachers should know how to manage students with disabilities without being offensive? Special training to teachers by the experts from the different disability sectors should be important policy. Through these special training the teachers will be able to know how to deal with students with specific disabilities. JRD University is dedicated to serve qualified applicants with a disability for equivalent opportunity to access the profits, rights and use of services, activities and programs. Hostel facility for students is provided on the basis of severity of disability. The JRD UNIVERSITY is already engaged in positive works to assure accommodations to all the students enrolled.

The linear relationship was found to be obtained with input and output variables at 95% prediction bound. The various errors estimated SSE, MSE, RMSE are well within the directed limit for the confidence bounds of the 95%.

Table 2 : General Statistics- University Resources



The prediction is based on an existing fit to the analysis of primary data. R-square statistics are used to help determine the best fit. R-square statistic is usually the greatest indicator of the best fit quality of surveyed data.

Table 3: General Model: University Resources

Name of Indicator : Resource (RE)			
General Model (Power)	$f(x) = ax^b$	Goodness of Fit	
a =	1.638 (1.309, 1.966)	Confidence Bounds	95%
b =	0.8896 (0.844, 0.9351)	SSE	477.6
		R-square:	0.9554
		Adjusted R-square:	0.9549
		RMSE	: 2.384

Conclusion

Resources become important for the proper functioning therefore identification of financing policies and agencies should receive proper impetus. In the study the majority of the students, seventy three percent (73%) said that they received satisfactory facilities from University. Ten percent (10%) said that they receive 3/4 of their needs from their department/University and rest from private donors. Ten percent (10%) received funding and other resources from private donors. Four percent (4%) received financial assistance and study article from the neighbour and relatives. The other three percent (3%) of the students were sure that they have received no funding or resources from others because his/her families is enough rich.

Suggestions

The universities facilitate Braille and talking books for the blind and sign language interpreters to aide hearing impaired students but the cause of delay is a barrier of its importance. Students with disabilities apply directly to the JRD University, the whole process are not central so that admission activities may finish on the same day. People with disabilities face barriers because they have to negotiate an environment which was not designed for them and if they are to enjoy equality of access it is this deficit in environment which must be overcome. Attitudinal barriers are found to be the major obstacle when it comes to inclusion of students with disability in educational institutions. In the JRD University for the Hearing Impaired, for example, many teachers may not know how to help a student with hearing impairment to hear with the help of hearing aids. As a result, such students and their parents do not show much interest in these aids, which affects the educational performance of these students and JRD University.

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