

# Evaluation Of Differently Abled (Divyangjan) Friendly Facilities And Services Provided To Students With Disabilities In Autonomous Colleges And Institutes Affiliated To Shivaji University, Kolhapur

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## ABSTRACT-

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National Education Policy 2020 stated that all educational institutes should provide barrier-free, inclusive educational facilities to all students with disabilities. National Assessment and Accreditation Council (NAAC) has given guidelines for evaluation of differently abled (Divyangjan) friendly facilities in Criterion No. 7 – 7.1.3. Researcher selected 17 autonomous colleges and institutes affiliated to Shivaji University, Kolhapur. Research data collected from AQAR available in PDF form on website of colleges and institutes. Null hypothesis is “Differently abled (Divyangjan) friendly facilities or services provided to students with disabilities are not satisfactory”. Null hypothesis tested using Chi-square test. Tested null hypothesis is false.

**Keywords:** students with disabilities, AQAR

## INTRODUCTION

National Education Policy (NEP) 2020 was approved by Union Cabinet of Indian Central Government in July 2020. NEP 2020 focused on barrier-free, inclusive educational facilities to all students with disabilities. Each and every higher education college, universities and institutes must be accredited by National Assessment and Accreditation Council (NAAC). NAAC is an apex body of University Grants Commission (UGC). NAAC has 7 criterions. Criterion No. 7 is Institutional Values and Best Practices which includes 7.1.3 as a Differently abled (Divyangjan) friendly facilities divided into 8 points.

### Definition Disability

“A physical, mental, cognitive, or developmental condition that impairs, interferes with, or limits a person's ability to engage in certain tasks or actions or participate in typical daily activities and interactions” (Merriam-Webster’s online dictionary).

## **REVIEW OF LITERATURE**

Huchaiah (2011) discussed about inclusive education. Inclusive education means facility of education for all including abled and children with disabilities. National Education Policy 1986 included inclusive education which gave guidelines for training to teachers for how to teach children with disabilities and barrier-free education.

Kaur (2015) recommended that government sector, public sector and private sector should involve persons with disabilities in all their policies, accessible infrastructural facilities and assistive technologies to provide barrier-free, discrimination free inclusive education to children with disabilities.

Hewett, Douglas, McLinden and Keil (2017) studied experiences of 32 students with visual impairment about inclusive learning environments such as accessible curriculum / course, accessible infrastructural facilities and independent access to information in higher education in the United Kingdom.

Maurya (2017) explained various assistive technologies which are helpful to various types of students with disabilities to do all their educational activities in a positive manner. Assistive technologies include hardware and software that improves functioning of students with disabilities without human assistance.

Kumari (2019) analyzed that as per equality principle of Constitution of India 2.68 Cr. persons with disabilities are not treated equally on the basis of accessible infrastructural facilities, trained staff, etc. in public places as well as in education institutes. Government of India has passed Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 and The Rights of Persons with Disabilities Act, 2016 which helps to provide important rights and necessary concessions to persons with disabilities.

## **OBJECTIVES OF THE STUDY**

The main objective and purpose of the present study is to evaluate differently abled (Divyangjan) users and provide friendly facilities and services to these users with disabilities.

### **SCOPE AND LIMITATIONS OF THE STUDY**

Researcher has selected 17 autonomous colleges and institutes affiliated to Shivaji University Kolhapur.

Research data is collected from AQAR 2019-20 from particular autonomous colleges and institutes which is available in PDF form on institute website.

Only AQAR Criterion No. 7 – 7.1.3 – 8 is (points) analyzed.

### **METHODOLOGY**

For this study, descriptive research method is used.

### **HYPOTHESIS OF THE STUDY**

The hypothesis selected is:

Differently abled (Divyangjan) users are satisfied with friendly facilities and services provided to them.

### **DATA COLLECTION**

Following type of research data is collected from AQAR 2019-20 from particular autonomous colleges and institutes which is available in PDF form on institute websites. AQAR (Annual Quality Assurance Report). Criterion VII – Institutional Values and Best Practices

Table No. 1, indicate the differently abled users friendly facilities that are coded from 1 to 8 and answer is available in particular AQAR in the form of Yes / No.

**Table 1: Differently abled (Divyangjan) friendly facilities and services**

Code	Facilities and Services
1	Physical facilities
2	Provision for lift
3	Ramp / Rails
4	Braille Software / facilities
5	Rest Rooms
6	Scribes for examination
7	Special skill development for differently abled students
8	Any other similar facility

**Table 2: AQAR 7.1.3 Differently abled (Divyangjan) friendly facilities**

Sr. No.	Name of the Autonomous College / Institute	AQAR Year	Facilities							
			1	2	3	4	5	6	7	8
1	Chhatrapati Shahu Institute of Business Education and Research, University Road, Kolhapur -416 004 (Autonomous from 1995-96)	2019-20	N o	N o	Y e s	N o	Y e s	N o	N o	N o
2	Walchand College of Engineering, Vishrambag, Sangli -416 415 (Autonomous from 2007-08)	2019-20	Y e s	N o	Y e s	N o	Y e s	Y e s	N o	N o
3	Rajarambapu Institute of Technology, Rajaramnagar, Sakharale-415 414 Tal: Walwa, Dist:Sangli (Autonomous from 2011-12)	2019-20	Y e s	Y e s	Y e s	N o	Y e s	N o	N o	N o
4	Government College of Engineering, Karad – 415 110 Tal:Karad, Dist:Satara (Autonomous from 2015-16)	NBA 2019-20	Y e s	Y e s	Y e s	N o	N o	Y e s	N o	N o
5	Dhananjayrao Gadgil College of Commerce, Satara -415 001 (Autonomous from 2016-17)	2019-20	Y e s	Y e s	Y e s	Y e s	Y e s	Y e s	N o	Y e s
6	DKTE Society's Textile & Engineering Institute, Rajwada Chowk, Ichalkaranji-416 115 Dist:Kolhapur (Autonomous from 2016-17)	2019-20	Y e s	Y e s	Y e s	N o	Y e s	Y e s	N o	N o
7	Kolhapur Institute of Technology's College of Engineering, Gokul – Shirgaon – 416234 Tal: KarveerDist: Kolhapur (Autonomous from 2017-18)	2019-20	Y e s	N o	Y e s	Y e s	Y e s	Y e s	Y e s	N o
8	Annasaheb Dange College of Engineering and Technology, ASHTA – 416 301 Tal: Walwa, Dist:Sangli (Autonomous from 2017-18)	2019-20	Y e s	Y e s	Y e s	N o	Y e s	Y e s	N o	N o

9	Vivekanand College, 204, E Ward, Tarabai Park, Kolhapur -416 003 (Autonomous from 2018-19)	2019-20	Y e s	N o	Y e s	Y e s	Y e s	Y e s	Y e s	N o
10	Yashwantrao Chavan Institute of Science, Satara - 415 001 (Autonomous from 2018-19)	2019-20	Y e s	Y e s	Y e s	N o	Y e s	Y e s	N o	N o
11	Chhatrapati Shivaji College, Satara -415 001 (Autonomous from 2019-20)	2019-20	Y e s	N o	Y e s	Y e s	N o	Y e s	N o	N o
12	Sadguru Gadage Maharaj College, Vidyanagar, Karad- 415 124 Tal-Karad, Dist-Satara (Autonomous from 2019-20)	2019-20	Y e s	Y e s	Y e s	Y e s	Y e s	Y e s	N o	N o
13	Mahavir Mahavidyalaya, 7/E, Bhausingji Road, Kolhapur -416 003 (Autonomous From 2020-21)	2019-20	Y e s	N o	Y e s	N o	Y e s	Y e s	N o	N o
14	Tatyasaheb Kore Institute of Engineering & Technology, Warananagar-416 113 Tal:PanhalaDist: Kolhapur (Autonomus From 2020-21)	2019-20	Y e s	Y e s	Y e s	N o	Y e s	N o	N o	N o
15	D. Y. Patil College of Engineering & Technology, KasabaBawada, Kolhapur -416 006,(Autonomous From 2020-21)	2019-20	Y e s	Y e s	Y e s	N o	Y e s	Y e s	Y e s	N o
16	Deshbhakta Ratnappa Kumbhar College of Commerce, Bindu Chowk, Kolhapur -416 012 (Autonomus From 2021-22)	2019-20	Y e s	N o	Y e s	N o	Y e s	Y e s	N o	N o
17	Kamala College, Rajarampuri, Kolhapur -416 008 (Autonomus From 2022-23)	2019-20	Y e s	N o	Y e s	N o	Y e s	Y e s	N o	Y e s

**NBA:** National Board of Accreditation

Table No. 1, indicate the differently abled users friendly facilities that are coded from 1 to 8 and answer is available in particular AQAR in the form of Yes / No.

Colleges and institutes should be provided following facilities to students / users with disabilities for inclusive, barrier-free and equal access of education to students with disabilities as per National Education Policy, 2020.

- Physical facilities include infrastructural facilities like accessible parking, accessible entrance and exit, accessible furniture and book shelf, accessible drinking water fountain, etc.
- Provision for accessible lift

- Ramp with railing and handrails
- Braille software – Braille Conversion Software, Braille printer and embosser
- Rest Rooms – Accessible toilet
- Scribes for examination
- Special skill development for differently abled students
- Any other similar facility such as reading materials in accessible format like Braille, large print, sign language, audio etc.

**ANALYSIS AND INTERPRETATION OF DATA**

Table No. 2 shows differently abled friendly fa-

**Table 3: Chi-square Observed Values**

<b>Observed</b>			
<b>Facilities</b>	<b>Yes</b>	<b>No</b>	<b>Total</b>
1	16	1	<b>17</b>
2	9	8	<b>17</b>
3	17	0	<b>17</b>
4	5	12	<b>17</b>
5	15	2	<b>17</b>
6	14	3	<b>17</b>
7	3	14	<b>17</b>
8	2	15	<b>17</b>
<b>Total</b>	<b>81</b>	<b>55</b>	<b>136</b>

Table No. 3 shows the Observed Values (Actual Values) for differently abled friendly facilities

**Table 4: Chi-square Expected Values**

<b>Expected</b>			
<b>Facilities</b>	<b>Yes</b>	<b>No</b>	<b>Total</b>
1	10.125	6.875	<b>17</b>
2	10.125	6.875	<b>17</b>
3	10.125	6.875	<b>17</b>
4	10.125	6.875	<b>17</b>
5	10.125	6.875	<b>17</b>
6	10.125	6.875	<b>17</b>
7	10.125	6.875	<b>17</b>
8	10.125	6.875	<b>17</b>
<b>Total</b>	<b>81</b>	<b>55</b>	<b>136</b>

Table No. 4 shows Expected Values of Yes and No  
 Expected Value = (Row Sum\* Column Sum) / Table Sum

**HYPOTHESIS TEST**

Hypothesis has tested using Chi-square test. For hypothesis testing, null and alternative hypothesis are as follows:

Hypothesis: ‘Differently abled (Divyangjan) friendly facilities and services provided to students with disabilities are satisfactory’.

Null Hypothesis:  $H_0$  = Differently abled (Divyangjan) friendly facilities and services provided to students with disabilities are not satisfactory.

Alternative Hypothesis:  $H_1$  = Differently abled (Divyangjan) friendly facilities and services provided to students with disabilities are satisfactory.

**Chi-Square Formula** =  $X^2 = \sum(O_i - E_i)^2 / E_i$

where  $O_i$  = Observed Value (Actual Value) and  $E_i$  = Expected Value

Calculations:

Significance Level = 0.05

Degree of freedom = 7

Test Statistic = 64.68777

**Table No. 5 - Chi-square / Test Statistics**

Chi-Square / Test Statistic			
Facilities	Yes	No	Total
1	3.40895	5.02045	8.42941
2	0.12500	0.18409	0.30909
3	4.66821	6.87500	11.54321
4	2.59414	3.82045	6.41459
5	2.34722	3.45682	5.80404
6	1.48302	2.18409	3.66712
7	5.01389	7.38409	12.39798
8	6.52006	9.60227	16.12233
<b>Total</b>	<b>26.16049</b>	<b>38.52727</b>	<b>64.68777</b>

p-Value= 1.73753E-11 = 0.00000000001737533

Critical Value = 14.06714

Table No. 5 shows hypothesis testing using Chi-square test.

1. Calculated p-Value i.e., 1.73753E-11 is less than Significance Level i.e., 0.05 means reject the null hypothesis i.e., ‘differently abled (Divyangjan) friendly facilities or services provided to students with disabilities are satisfactory’ is true.

1.73753E-11 < 0.05 = Reject Null Hypothesis

2. Calculated value of Chi-square / Test Statistic i.e., 64.68777 is greater than Critical Value i.e., 14.06714 means reject the null hypothesis i.e. ‘differently abled (Divyangjan) friendly facilities or services provided to students with disabilities are satisfactory’ is true.

64.68777 > 14.06714 = Reject Null Hypothesis

### FINDINGS AND CONCLUSION

Hypothesis testing shows that null hypothesis i.e., ‘differently abled (Divyangjan) friendly

facilities and services provided to students with disabilities are not satisfactory’ is false.

All 17 autonomous colleges and institutes are providing differently abled users (Divyangjan) friendly facilities and services at satisfactory level.

Goal of National Education Policy 2020 of barrier-free and inclusive education to students with disabilities is achieved by all these 17 institutes.

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