
A Virtual Face: Disability Services Information on Universities' Websites

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ABSTRACT

University websites having information on disability services facilitate the students with special needs. This information enables them to make a comfortable choice of higher education institution for their studies. This study focused availability of disability services information on university websites for potential students with disabilities. Content analysis instrument developed by the author was used to collect data from official websites of 10 participant universities of Pakistan. These official websites of the participant universities were analyzed for: (1) the disability services information made available by the universities on their websites, and (2) the distance of disability services information from the homepage of websites. The findings of this quantitative content-focused synthesis indicate shortage of relevant disability services information on university websites. The study concludes with suggestion for uniformity of official websites of universities. Policy makers, web designers and future researchers have also been triggered to improve the situation.

Keywords: disability services, websites, Students with Special Needs (NWSN)

Introduction

To bring the persons with disabilities in the main stream of life, their rights were first recognized by United Nations Organization (UNO) in 1975 in the Declaration on the Rights of Disabled Persons (U.N. Decade of Disabled Persons 1983-1992, 1983). To revitalize the UNO General Assembly resolution, A / RES / 30 / 3452 of December 9, 1975, UNO General Assembly in 1982 endorsed the World Programme of Action for Disabled Persons. This resolution paved the way for the disabled persons to enjoy participation in education, health and rehabilitation services at par with others. In 1982, UNO General Assembly resolution 37 / 52 of December 3, 1982 declared 1983 – 1992 as UNO Decade of Disabled Persons. As policies are framed for implementation, hence, UNO Commission for Social Development (1994) launched a three-year monitoring programme to gauge the implementation and monitoring of these rules. Subsequently, International Convention on the Rights of Persons with Disabilities (2006) emphasized that

disabled persons should be enabled to live independent life. Member States were advised to take concrete steps for physical mobility, technology and support services access to the persons with disabilities. Ahmed and Khan (2011) in a study stated that Convention on the Rights of Persons with Disabilities, 2006 triggered the States to chalk out legal framework for providing equal opportunities to disabled persons in every walk of life.

Disabled Persons (Employment and Rehabilitation) Ordinance was issued by Government of Pakistan in 1981. In the light of this ordinance, Government is responsible for the remedial measures against disabilities; safeguarding rights of disabled persons; and provision of education, medical treatment, vocational training and reservation of quota for employment to the persons with disabilities. In sequel to this Ordinance, the first National Policy on the issues of disability reiterated the rights of disabled persons in Pakistan (National policy for persons with disabilities, 2002). There are 2.49 percent persons with disabilities in Pakistan according to the 1998 census conducted by Pakistan Census Organization (PCO). However, this ratio has increased considerably due to deteriorated law and order situation in Pakistan for last decade or so. With the awareness among community, the word disabled persons has been euphemized as special persons. However, in educational settings, the term Students with Special Needs (SWSN) is in fashion.

In the wake of numerous measures taken by Federal, Provincial governments, Higher Education Commission of Pakistan and NGOs, a considerable number of students with disabilities are now being enrolled in universities for higher education. As potential students with disabilities face mobility problem, hence they rely on information provided on electronic media and websites of the universities. The availability and accessibility of disability services on the official websites of universities make it easier for students with special needs regarding comfortable choice for their admission.

Purpose statement

The purpose of this study was to explore the availability and distance of disability services information for students with special needs on official websites of Pakistani universities.

Research questions

This study examined and answered following questions:

- Do official websites of Pakistani Universities provide disability services information for prospective Students with Special Needs (SWSN)?
- If the disability services information is available, then what is the distance of disability services information from the homepage of official websites of Pakistani Universities?

Review of literature

Disability is a world phenomenon, where people face different types of handicaps: physical, mental, blindness, deaf and dumb etc. These persons with disabilities cannot perform most of the tasks independently and need help of others. To overcome the problems of the disabled persons, disabled friendly policies play a vital role in rehabilitation. For last fifty years or so, world

governments, UNO, NGOs and educational institutions are doing their utmost to provide maximum facilities to the persons with disabilities. One of the aspects is Universities' websites, which are the virtual face of the universities. The availability of information regarding disability services on universities' websites also facilitates students with special needs in comfortable selection of educational institutions for their higher studies. A considerable research has been carried out in developed countries on this issue. However, in the Pakistani context, it needs to be accelerated for the betterment of students with special needs.

Global context

UNO resolutions and directives on the rights of persons with disabilities warrant signatory States to implement these rules. So, higher education institutions and universities of the world are also bound to provide requisite information on disability services on their websites. Of late, the widespread use of computers has made institutional websites the hub of information for prospective students. Wilson and Meyer (2009) stated that present day students seeking admission in higher education institutions are more technology savvy as compared to the past generations. According to Coomes and DeBard (2004), the global generation remains in contact round the clock. For this purpose, students rely on the information provided on the official websites of the colleges and universities. Now it is the responsibility of higher education institutions to design their websites in such a way to cater for the needs of students. The content displayed on the websites is the virtual face of an institution. The universities should ensure that websites provide adequate and relevant information for prospective students. Meyer and Jones (2011) found that most of the institutional websites give space to publicity and marketing instead of information related to students. So, the dearth of relevant information on websites makes students dissatisfied. Moreover, the students also get frustrated and leave their search when information is found through multiple paths from homepages. Hence, institutions should prioritize the relevant information on websites to facilitate students.

Hassan (2013) in a study conducted on websites of three Jordanian universities concludes that university websites contain polygonal information. There is a dire need to conduct research on the websites of universities to ascertain the effectiveness of the information. Moreover, the problems faced by the students while searching information on websites should also be catered for by all responsible quarters. Jackson and Jones (2014) conducted a research on official websites of 40 Public Community Colleges in USA regarding availability of disability services information being major source and comfortable choice of institutions for admission by disabled students. They suggested that being a virtual face of educational institutions, web policy should be followed to facilitate the students. Solovieva and Bock (2014) in a research study on monitoring and accessibility of university websites for disability services information concluded that while designing websites, universities should focus both current and potential students with special needs. The disability services information should be made easily accessible on official websites which may facilitate the students.

Local context

Pakistan is a member of UNO and signatory of the conventions for the rights of disabled persons. Hence, Government of Pakistan has taken a number of steps for the promotion and awareness of the rights and needs of persons with disabilities. In addition, Non-Governmental Organizations (NGOs) are also playing vital role for this noble cause. In this aspect, Disabled Persons' (Employment and Rehabilitation) Ordinance 1981 is the first legal document in Pakistan under the auspices of UNO directives. To further the scope, National Policy for Persons with Disabilities was promulgated in 2002. Apart from other salient of the policy, it emphasizes the equal opportunities for disabled persons to higher education, friendly building infrastructure, rehabilitation and support services and access to information technology (National Policy for Persons with Disabilities, 2002). Subsequently, Government of Pakistan, Islamabad promulgated "The Special Citizens' Act, 2008". This Act is a kind of energizer for the earlier rules and policies on the issue. The salient points of The Special Citizens' Act, 2008 includes facility of disabled friendly building infrastructure with wheel chairs access and special seats in public transport.

Higher Education Commission (HEC) of Pakistan has also framed policies for provision of education to the students with special needs at higher level. In this regard, Government of the Punjab, Higher Education Department has issued a notification number S.O (A-II) 1 – 83/2012 dated 7 November 2013 with following facilities to disabled students:

- Waiver of upper age limit for disabled students on admission in public sector educational institutions.
- Remission of fee, hostel and utility bills for students with special needs.
- Reservation of one seat for admission in M. Phil and Ph. D programmes in public sector institutions / universities.
- Construction of slopes, ramps and special toilets in government buildings.
- Provision of laptop and electric wheel chair by university to special students as an incentive.

Naz, Akhtar, Nawaz, & Yasin (2010) in a study found that most of the parents in Pakistan were of the view that it was not easy to retrieve information about disability services for special persons. It should be made public through electronic media, so that parents could groom their disabled children as dignified members of society. Ahmed, Khan and Naseem (2011) in a study "Policies for Special Persons in Pakistan : Analysis of Policy Implementation" highlighted the role of National Plan of Action (NPA) to implement the National Policy for Persons with Disabilities at public, private sectors and especially at provincial level. The NPA has pointed out 17 grey areas impeding the smooth delivery of disability services. NAP has put forth short and long term measures for implementation of disability services ranging from 2009 to 2025.

The review of the literature has revealed that in Pakistan, legislation on the rights of persons with disabilities exists in abundance. However, there is a dearth of research on the implementation of these rules and regulations. Comparatively, a good number of researches have been conducted in developed countries especially United States of America. Although, Pakistan is a growing

market of technology, but no worthwhile research has been conducted on the websites of educational institutions to monitor the implementation of policies and availability of disability services for SWSN. This gap of research on the topic is worth exploring. Hence, this study will not only fill the research gap but it will be a pathfinder for policy makers, university managers and web designers. The ultimate beneficiary of the study will be the students with special needs to locate the required information on university websites for comfortable choice of educational institutions.

Methodology

Study design

The design of this study is quantitative which is descriptive in nature to explore the disability services information on university websites. The lack of research literature on this topic warrants that content-focused synthesis can be used to answer the research questions for understanding the issue (Majchrzak, 1984). A content-focused synthesis study focuses on a synthesis of information across data types. In this study the focus of synthesis was on availability disability services information and its distance from the homepage of university websites. The content-focused synthesis was used to focus on information and services provided to students with disabilities through university websites. The study on availability of disability services on the websites of 10 universities will help to gauge the problems faced by students with special needs while searching information before taking admission.

Population and sample

The representation of all provinces / regions of Pakistan was ensured while sample selection of university websites. In line with virtual face sampling technique developed by Meyer and utilized in her studies (e.g., Meyer (2008a, 2008b), a purposive selection process was used. First the population of the study was identified and grouped from official website of Higher Education Commission of Pakistan, Islamabad. A total of 178 Universities and Degree Awarding Institutions (DAIs) are recognized from Higher Education Commission of Pakistan. Out of these 178 universities, 103 are in public and 75 in private sector. Second, the provinces of the universities were grouped in the five official regions of the Pakistan: Federal Capital Islamabad, Punjab, Sindh, Khyber Pakhtunkhawa and Balochistan. From these groupings, a recursive process was followed to develop the sample of 10 Universities (1 public and 1 private sector university each) to represent five different regions / provinces of Pakistan. The sample was bifurcated into two sections of public and private sector universities under the different headings shown in Table 1. It is added that as per 5th Ranking of Pakistani Universities (January – February 2016) announced by HEC, four out of ten universities selected as sample are among top ten universities of Pakistan. It is augmented that Wilson and Meyer (2009) in a study titled *Higher Education Websites: The Virtual Face of Diversity* took sample of 40 US higher education institutions out of 3941, 1% of the total population. However, the researcher has taken 17% sample of total population of 178

universities. It is essential to note that the purpose of this study was to explore what potential students with special needs would find when searching the websites of universities across Pakistan. Furthermore, the distance of disability services information from the homepage of the university websites selected as sample was also measured through the number of mouse clicks.

Table 1. Sample of university websites

Sr.	Name of University	Region/ Province	Official Website Address
Public Sector Universities			
1.	Quaid – e – Azam University, Islamabad	Federal Capital	www.qau.edu.pk
2.	University of the Punjab, Lahore	Punjab	www.pu.edu.pk
3.	University of Karachi, Karachi	Sindh	www.uok.edu.pk
4.	University of Peshawar, Peshawar	Khyber Pakhtunkhawa	www.upesh.edu.pk
5.	University of Balochistan, Quetta	Balochistan	www.uob.edu.pk
Private Sector Universities			
6.	Riphah International University, Islamabad	Federal Capital	www.riphah.edu.pk
7.	University of Management and Technology, Lahore	Punjab	www.umt.edu.pk
8.	Aga Khan University, Karachi	Sindh	www.aku.edu.pk
9.	Preston University, Kohat	Khyber Pakhtunkhawa	www.preston.edu.pk
10.	Al-Hamd Islamic University, Quetta	Balochistan	www.aiu.edu.pk

Instrumentation

First the researcher decided to adopt the instrument from previous researches on the topic. However, due to limited number of researches available on the issue and all conducted in US and developed countries, the instruments were not compatible with the Pakistani context. Moreover, the researcher also focused the disability services information on websites of universities in line with ordinances and policies of Government of Pakistan and Higher Education Commission. Hence, a researcher-developed content analysis instrument was designed. The instrument consisting 15 items (questions), included two sections i.e., availability of disability services information on websites and distance of information from homepage. The information on first section was recorded through dichotomous statements (Yes or No). However, information for second section was gauged on the basis of the number of mouse clicks from the homepage of university websites. The data collected was put in SPSS for checking the reliability of the

instrument but it could not be ascertained through SPSS being less number of cases. Hence, the instrument was emailed to an expert in the field for evaluation of its reliability. The worthy expert thoroughly examined the instrument and sample and suggested some minor changes in the instrument and also inclusion of private sector universities in the sample (which were not included at that stage). The necessary amendments were made and the same was approved by the expert. The researcher developed content analysis instrument is attached as Appendix A.

Data collection

The data collection for this study involved long sitting on computer desk with a focused and time taking effort. In the first phase, 20 hours (two hours per website) were consumed for exploring the official websites of 10 universities. Disability services information for both the sections of instrument i.e., availability and distance of disability services information was retrieved from the websites. To ensure correctness of the data, only 2 - 3 websites per day were explored. Each and every link available on the website was observed. Search option wherever available was also used through key words related to disability services. “Admission”, “Registration”, “Life at University”, “Rules & Regulations” and all the popup menus were thoroughly observed. It was ensured by the researcher that no option, button or link on the website was left untouched. Both the sections of the instrument sheet were compiled by the researcher. The distance of disability services information was measured through number of mouse clicks from the homepages. The numbers of mouse click were recorded in the relevant box of the instrument sheet. Subsequently, a second phase of analysis of 10 hours (one hour per website) was conducted to review the veracity of data. In this round, discrepancies if any were observed and amended accordingly.

Findings / Discussion

The findings of this study have been associated with the past studies on the topic, like Irwin and Gerke (2004) and Quick et al. (2003). Irwin and Gerek (2004), in a study on Liberal Arts Colleges, found that information regarding disability services was “difficult or impossible to locate from several of the websites”. In this study, official websites of ten universities across the Pakistan were examined to ascertain the availability of disability services information and its distance from homepages. The participant universities represented the five administrative regions of Pakistan, i.e., Federal Capital, Punjab, Sindh, Khyber Pakhtun khawa and Balochistan. The data was collected in two sections i.e., availability of disability services information and its distance from homepages of official websites of 10 universities and analysis / findings are as under:

Availability of disability services information

A rigorous exploration process of university websites regarding information on disability services was carried out to answer the first research question “Do official websites of Pakistani Universities provide disability services information for prospective Students With Special Needs (SWSN)?” Out of 10 websites of participant universities examined, 40% (n = 4) have made E-prospectus available on their websites. 50% (n = 5), universities had online admission forms facility flashed

on the websites. On the same 50% (n = 5) had given the basic information of reservation of seats or quota for admission of students with special needs. 30% (n = 3) websites have information regarding availability of special facilities in library, although this information had not been made specific for students with special needs. Moreover, 10% (n = 1) each had provided information about exemption of upper age limit, class timings (morning / evening), waiver of tuition fee and provision of laptops on admission of a students but the same information was also not specific for disabled students. Detail of available information on disability services is shown in Table 2. However, 47% information (7 items out of 15) on following categories was missing from the websites of the Universities:

- On campus availability of wheel chairs and support staff
- Provision of ramps / special pathways and toilets
- Availability of lifts / elevators
- Availability of special transport facility
- Special facilities at Cafeteria
- Provision of electric wheel chairs on passing out from University to M. Phil Ph. D students with special needs
- Category wise record of achievement of alumni (disabled / blind / physically challenged students).

Table 2. Availability of disability services information

Sr.	Disability Services Information	Availability of Information on University Websites			
		Public Sector	Private Sector	Total	%
1	Is E-prospectus available on website?	1	3	4	40%
2	Is online submission of admission forms facility available?	0	5	5	50%
3	Has disabled quota for admission of SWSN been reserved as per government policy?	3	2	5	50%
4	Is age limit exemption available for SWSN?	0	1	1	10%
5	Are special library facilities available for SWSN?	2	1	3	30%
6	Have class timings (Morning / Evening) been reflected on websites?	1	0	1	10%
7	Is full tuition fee, hostel charges and utility bills waiver available for SWSN of M. Phil / Ph. D programmes?	0	1	1	10%
8	Are laptops being provided to SWSN as incentive on admission in M. Phil / Ph. D programmes?	1	0	1	10%

As the sample consisted of 5 universities each from public and private sectors, hence a comparison of information on disability services in both public and private sector universities websites has been summarized in Figure – 1.

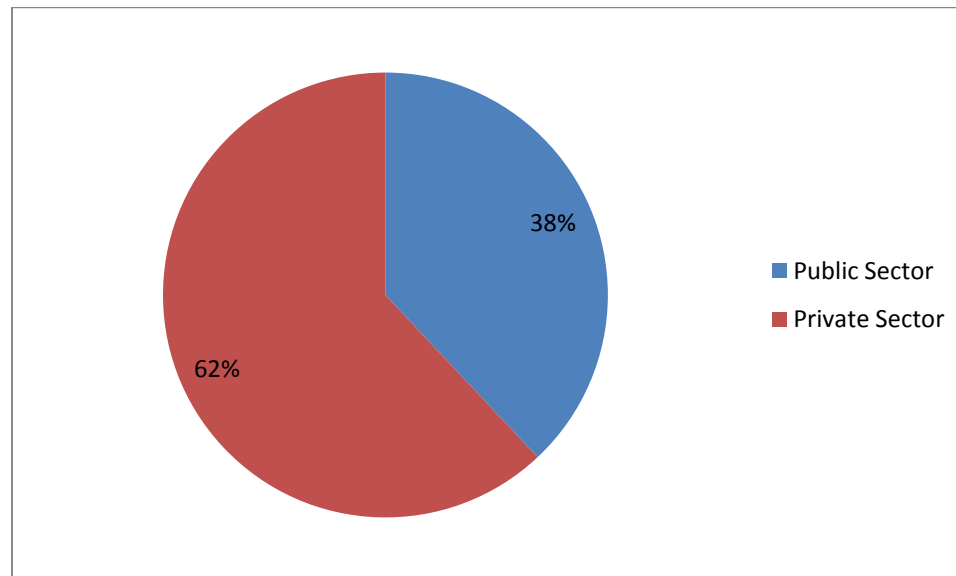


Figure 1. Comparison of disability services information available on websites of public and private sector universities

Distance of disability services information from homepages of university websites

The second question of the study was “If the disability services information is available, then what is the distance of disability services information from the homepage of official websites of Pakistani Universities?” To address this question, the distance of information regarding disability services information from the homepage of the University websites was measured through number of mouse clicks. It was found that all the 10 participant Universities had no direct link from homepages for information on disability services. Most of the information on disability services was listed under admission category. It is also worth mentioning that all the 10 websites of public and private sector universities had disability services information maximum up to three mouse clicks. As no information was beyond third mouse click, hence fourth and fifth mouse click in the instrument have not been included in the analysis. 62% information was available at the distance of two mouse clicks from the homepages of websites. First and Third mouse clicks had 19% information on disability services as shown in Table 3.

Table 3. Distance of disability services information from homepages of universities’ websites

Number of Mouse Clicks	Public Sector Universities	Private Sector Universities	Total	Percentage
One Click	1	3	4	19%
Two Clicks	5	8	13	62%
Three Clicks	2	2	4	19%

An illustrative comparison of distance of disability services information between public and private sector universities' websites has been shown in Figure 2.

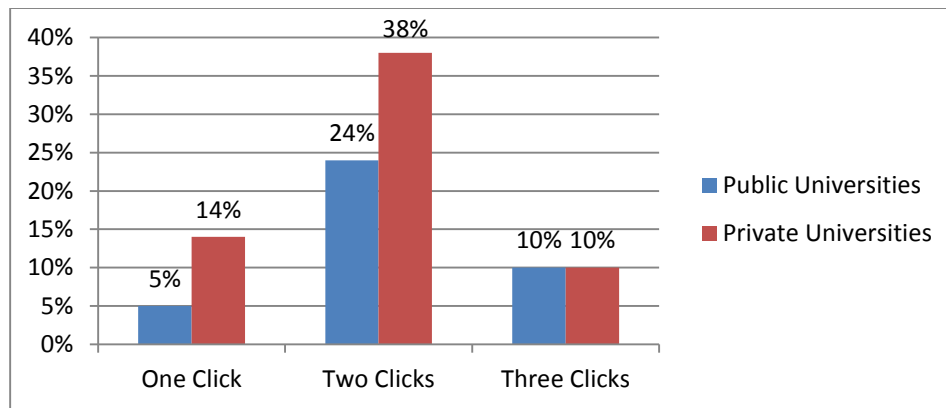


Figure 2. Comparison of distance of disability services information from homepages of public and private university websites

The websites of public and private sector universities in Pakistan examined in this study contained handful information about admission, administration, staff and programs. The only specific information on disability services found on the websites was ‘seats reserved for special persons’. But no specific information on disability services was available on the university websites. Due to non-existence of direct link for disability services, students have either to locate the information by predicting which link to click or by using the search feature if available. It is possible that due to multiple paths involved, potential students with disabilities will give up their hunch to find the desired information. Out of 15 items, only 53% information on disability services (not disability specific) could be traced and remaining 47% information was missing. It is worth mentioning that the missing information was about disability support services, building infrastructure, transportation and wheel chairs which have paramount importance for the students with special needs. Record of disabled students with achievements has also not been uploaded on university websites which can be a motivating factor for the potential students with disabilities. Private sector universities websites had 62% information on disability services as compared to 38% of public sector universities (see Figure 1). As the distance of the available information from homepage also measured through number of mouse clicks, it was vivid that private sector universities had an edge on public sector universities. Most of the information on disability services i.e., 62% (38% private and 24% public universities) was available at a distance of two mouse clicks from homepage (see Figure 2). It was noticed that most of the official websites of Pakistani Universities were not in compliance with the legislation and rules on provision of disability services information. The clear instructions issued vide “Disabled Persons’ (Employment and Rehabilitation) Ordinance” 1981, National policy for persons with disabilities, 2002 and Higher Education Commission, Islamabad are not being implemented in true letter and spirit. This situation not only embarrasses students with special needs but also hampers their comfortable choice of Universities for their higher education to become a valuable citizen of Pakistan.

Conclusions / Recommendations

The findings of this study highlighted the importance of availability of disability services information on the official websites of universities. Friedman (2004) foresees that in the years to come, computer savvy students with special needs will locate information from websites of educational institutions. According to Milsom and Hartley (2005), whenever a student with disabilities plans to get admission in university for higher studies, he / she traces the disability services information on the website. The results of this study prompt that there is a big gap to be filled by universities by launching user friendly designed websites for all students. The virtual language of the universities displayed on websites should be easily accessible to the students. It is pertinent that availability and accessibility of information for students with special needs on websites decreases the dependency and increases the motivation level which is a torchbearer for their future success (Brinckerhoff, McGuire, & Shaw, 2002). The findings of this study indicated that public and private sector universities in Pakistan had no direct links to information on disability services. The available information on disability services was scattered and could not be found in a synchronized way. The students with special needs find it difficult to retrieve requisite information, if it is accessible through multiple paths on university websites. Uniformed design of websites is a source of ease for location of information by clicking on the required links. The examination of 10 universities websites showed inconsistent information which was confusing for the students with special needs. Although, this study represents a small number of university websites, yet it has a vast canvas of implications for students with disabilities. Following plan of action can make the choice of universities by students with special needs comfortable:

- All official websites of universities recognized by Higher Education Commission (HEC) should have a uniformed design.
- HEC should issue No Objection Certificate before launching university websites.
- Universities should hire highly qualified web designers to cater for all aspects of websites.
- Disability services information should be made prominent and easily accessible on university websites.
- Policy makers, HEC authorities and student support professionals should be encouraged to conduct research on university websites to contribute to the growing literature to increase the representation and facilitate students with disabilities.
- Ministry of Education, Ministry of Information Technology and Higher Education Commission should ensure periodic checks on websites of universities.

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Appendix A

Content Analysis Instrument

Name of University: _____

Public / Private Sector: _____

Ser	Disability Services Information	Section 1		Section 2				
		Availability of Information on website		Distance of Information, mouse clicks from homepage				
		Yes	No	1	2	3	4	5
1.	Is E-prospectus available on website?							
2.	Is online submission of admission forms facility available?							
3.	Has disabled quota for admission of SWSN been reserved as per government policy?							
4.	Is age limit exemption available for SWSN?							
5.	Are wheel chairs and support services available on campus?							
6.	Are ramps / special pathways and toilets available for SWSN?							
7.	Are lifts or elevators available?							
8.	Is any special transportation facility available for SWSN?							
9.	Are special library facilities available for SWSN?							
10.	Are special facilities at Cafeteria available for SWSN?							
11.	Have class timings (Morning / Evening) been reflected on websites?							
12.	Is full tuition fee, hostel charges and utility bills waiver available for SWSN of M. Phil / Ph. D programmes?							
13.	Are laptops being provided to SWSN as incentive on admission in M. Phil / Ph. D programmes?							

14. Are electric wheelchairs provided to M. Phil / Ph. D SWSN scholars on passing out from University?
15. Is category wise record of disabled / blind / physically challenged students with achievements available on websites?

National Plan of Action for the Persons with Disabilities, 2006; Directorate General of Special Education, Government of Pakistan

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National Plan of Action for the Persons with Disabilities, 2006; Directorate General of Special Education, Government of Pakistan