Challenges Faced by Higher Education Institutions in Including Students with Hearing Impairment

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Abstract

Inclusion at higher education is a recent initiative of Higher Education Commission, Pakistan. Students with hearing impairment and students with visual impairment are welcomed by several HEIs in Punjab. However, the case of students with hearing impairment emerged as very challenging because of limited communication between teacher and taught and ill preparedness of HEIs to accommodate these students. Several studies indicated that students with hearing impairment face multiple problems such as getting admission support, diversified learning, social adjustment and modified assessment procedures. Similarly, there are very few opportunities available for higher education to students with hearing impairment in limited number of institutes. This study was conducted to identify the various types of problems faced by students with hearing impairment in HEIs. For this purpose, survey method was used to collect data from 48 teachers and 246 students with hearing impairment studying in 10 different higher education institutes of Punjab. All teachers and students were included in the sample. Findings of study indicate that students with hearing impairment enrolled in various programs i.e. B.A, B.S, M.A and M.Phil. are facing problem in academics such as reading, writing, availability of interpreter, lack of adaptive study material, and inappropriate assessment system.

Keywords: higher education, quality education, academic problems, students with hearing impairment.

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Introduction

Education is a symbol of civilized nation; however, the value of higher education is being recognized as more vital for the citizens of South Asian developing countries (Haider, 2008).The international movement of higher education (HE) is not a new sensation in 21st Century. Globally, there have been major developments in making HE accessible for all but unfortunately, inequalities in academic opportunities at national level are restricting all learners with exceptional needs to be the part of higher education institutes (HEIs) in Pakistan (Bilal & Khan, 2012). HE inculcates knowledge and skills in order to take part in national development and decision making. Effectiveness of HE is measured on the level of engagement of its graduate's gainful economic activity.

A few HEIs in the Punjab province, accept students with hearing impairment (SWHI) but even these few HEIs do not have proper arrangements to support because of technical and financial shortcomings. As Hurst (1996) opines that students with disabilities in HE is trying to get education to develop their social skills, but research findings of Lang (2002) indicated that participation of SWHI in HE is difficult. Healey et al. (2006) also noted that relationship between impairment and academic problems is significant in HE.

Quality of HE is another important factor to consider while discussing the case of SWHI; the quality issue includes the physical facilities as well as flexible curriculum and instructions. Getting a degree is not enough, relevant knowledge is required that could be of real use to market. In system of education SWHI face major problem of access to HE institutions (Nkoane, 2006). HEIs do not accept students with disabilities around the world, however, they have started joining HE in current years (Al-Hmouz, 2014). Convertino et al. (2009) found that in HEIs predictor of academic performance will not be present if teacher will not enter in the classroom with updated content, teaching strategies, and communication flexibility. Teachers are not prepared to teach SWHI and to meet their individual needs. Convertino et al. (2009) reported that academic preparation is a clear and reliable

prognosticator for success. HEIs in Pakistan have taken initiatives to provide admissions to SWHI but they are not well prepared to fulfill the academic as well as social needs of the SWHI. As a result, SWHI are facing a lot of challenges in completion of degrees. This research primarily was conducted to explore academic challenges faced by SWHI in HEIs.

Kochung (2011) notes that students who were enrolled in HE institutions are helpless, and they do not complete high school education to fulfill college and university admission criterion. Al-Hamouz (2014) explored the challenges faced by persons with different disabilities in HE. They included (a) lack of policy frameworks; (b) lack of funds; (c) lack of learning and assessment materials; and (d) lack of training mechanism for faculty or staff to deal with disability matters.

Accommodation of individual differences undervalues the skills and potential of SWHI (Borgna, Convertino, Marschark, Morrison, & Rizzolo, 2010). HE system has not been aligned according to the needs of SWHI. As a result, even students admitted on merit in different departments face multiple barriers to make progress in their studies. There is lack of awareness about human diversity among faculty and a culture prevails that does not accept diversity. A lack of support for learning and poorly designed learning experiences have increased problems for SWHI (Riddell, Tinklin, & Wilson, 2005). HE institutions are making efforts to promote their educational standard by providing quality HE to their citizens in many countries, but there are emerging problems for achieving quality that is sensitive to equity as well (Haider, 2008).

SWHI do not read with comprehension because it is a complex practice. Reading ability involves understanding meaning of words from text and decoding letters and words by using linguistic information, such as metacognition.

Findings of the Miller (2005) also supported that poor reading skills among persons with severe pre-lingual hearing loss reveal a reliance on reading strategies based on insufficient knowledge regarding the spoken codes. SWHI become familiar with written words so that they recognize them with great efficiency despite a profound phonological flaw. Miller gives opinion also that the presence of proper hearing, in combination with exposure to

speaking environment, provides sufficient basis for the spontaneous attainment of structural knowledge that upholds the interpretation of written texts. Miller suggested that SWHI with severe pre-lingual hearing loss are at risk of developing nonstandard reading strategies that affect their ability to make sense of written text.

According to Borgana, Concertino, Marschark and Rizzolo (2010) SWHI find reading difficult and frustrating exercise. Rompf (1981) also reported that reading problems experienced by SWHI cause failure to master English language. Wauters, Van Bon and Tellings (2006) reported that reading scores of SWHI are below the scores of hearing students.

Several research studies indicated other problems faced by SWHI in inclusive HEIs such as language proficiency, classroom size, ineffective lecture method, less opportunities for class participation, note- taking and adaptations in other study materials (Stinson, Liu, Saur and Long, 1996; Garrison-Wade, 2012).

Stinson, Liu, Saur and Long (1996) stated that teachers do not evaluate their lectures, so that there is lack of reinforcement for SWHI to participate in different academic tasks due to communication problems. Marchetti, Foster, Long and Stinson (2012) also explained that SWHI do not feel comfortable while using written English to communicate without sign language interpreter.

Similarly, in inclusive settings the larger class sizes make it difficult for SWHI to get academic success because it is logical to assume that smaller classes to facilitate participation of SWHI in HEIs. So, small class size increases academic achievement because in small groups SWHI are more actively engaged in learning than in larger groups.

Brandt (2011) indicated that lecturers cover their face while speaking; so, lip reading activity for SWHI becomes difficult. He further says that lecturers do not provide notes before lecturing this condition also causes troubles for SWHI. Fuller (2004) reported that fast speed of the teachers' speech during the lectures creates difficulties for SWHI to join class discussions.

The research findings of Fuller, Healey, Bradley and Hall (2004) also identified that lecturers speak too quickly and remove visual material before comprehension of the contents. According to

Brandt (2011) lecturers do not distribute notes before the lecture to help SWHI so that they may be prepared to grasp new lesson. Spradbrow and Power (2000) documented that SWHI miss information during lectures. As a result, they become frustrated at the quick pace of discussion.

Stinson and Anita (1999) asserted that classroom participation refers to students' participation in the classroom activities and discussion. SWHI who are well integrated are not able to participate in classroom activities in a manner like that of their hearing class fellows.

SWHI should have access to all discussions and other classroom activities through classroom acoustics, hearing aids and sign language interpreters. Anita, Stinson and Gausted (2002) explained that the social constructionist approach of learning requires regular interaction of students in classroom with teacher and class fellows to construct knowledge. This perspective promotes classroom participation. So, to translate beliefs into practice teachers of SWHI do not actively promote class participation realistically. Such situations require redefining of traditional roles and sharing of ownership of both the hearing students and SWHI in the classroom. Teachers in inclusive classrooms need to infuse knowledge regarding HI and sign language within the curriculum. According to Borland and James (1999) good quality access depends on rigorous use of the system to motivate lecturers to record lectures, but the system breaks down if they forget to use the microphone.

Safder, Akhtar, Fatima and Malik (2012) through their research study explored that there are a lot of curricular problems related to curriculum adaptation and modification to meet the exceptional needs of SWHI. Sign language interpreters and teachers in inclusive classroom face the problem of interpreting certain concepts as a result, SWHI fall academically far behind their hearing peers. Brandat (2011) explained that the most common problem which is faced by SWHI is getting adapted study materials on time. Students do not receive their course materials in time for an assignment and final examination. If students with impairments did not receive adapted study materials as a result, they are not able to participate fully in their courses. SWHI who need adaptations should get them on time; because delays could

prevent them from accepting an offer in a particular field of study or could lead toward droop out.

Listening and writing notes is a major problem faced by SWHI. According to Brett, (2010) comprehension of spoken information in academic environments for SWHI is not best possible, with or without hearing augmentation devices. As a result, note-takers have been identified as an appropriate form of support.

Note-takers are engaged to text the basic concepts in a lecture in conventional note form. Even as notes taking activity makes possible for SWHI with a logical level of speech comprehension by focusing exclusively on teacher's lecture without the distraction of taking notes at the same time. Note-taking has become common form of support for SWHI.

According to Brandt (2011) sudden change in any schedule of the institution also creates problems for SWHI. SWHI require special arrangements for final examinations, such as the allocation of extra time and provision of a separate examination room. The problems faced by SWHI in HE are evident and common all over the world even in developed countries.

In the Pakistani context problems faced by SWHI are dominantly high as compared to developed countries because a few Pakistani HEIs in public and private sector are at very initial stage to accept SWHI. As far as organizational or structural changes in system to accept diversity are concerned, no serious effort has surfaced yet.

Research Questions

This study was conducted to:
1. Document opinions of the teachers regarding challenges faced by SWHI in HEIs.
2. Survey the opinions of the SWHI regarding challenges faced in HEIs.
3. Explore any significant difference between teachers and student's opinion regarding challenges in HEIs.

Research Methodology

Participants

The present research mainly focused on inclusive higher education, so the respondents were SWHI in HEIs and their teachers in the Punjab Pakistan that are offering services for SWHI as well. Specifically, for this purpose forty-eight male and female teachers and 246 SWHI were research participants. Both public and private HEIs participated in present research. All research participants were both male and female. Sample of the study was short so sample census technique was used in this study. Overall, ten public and private HEIs were found in the Punjab Pakistan that were offering their services for SWHI in segregated as well as inclusive settings.

Research Instruments

Self-developed questionnaires were used to collect the data from students and teachers. After validation items were refined and reliability was measured 0.87 using Cronbach's Alpha.

Both questionnaires had two parts. In first part demographic information (age, gender, qualification experience and class) was asked and in second part relevant questions were asked both from teachers and students. The researcher personally visited all HEIs in the Punjab Pakistan to obtain responses from teachers and SWHI through questionnaires. All teachers studied questionnaire in detail and responded. The researcher explained each item of the questionnaire in sign language to get responses from the SWHI against each item. The questionnaire was comprised of four points like strongly disagree, disagree, agree and strongly agree. Validity of the instrument was ensured from relevant experts.

Findings

Following findings were drawn based on data analysis:

Results of the study in table 1 show that out of 48 teachers about 50% gave their opinion that their lecture pace is fast, but

they simplify their lecture into small steps for the better comprehension of SWHI. But other than these have opposite views.

Table 1

Teachers' perceptions related to challenges faced by SWHI in HEIs

Sr. No	Statements	Min.	Max.	Mean	SD
1.	SWHI can read different books with comprehension.	1.00	3.00	1.50	.55
2.	SWHI can take notes of daily lectures taught daily in the classroom.	1.00	3.00	1.50	.62
3.	Note takers are available before every lecture.	1.00	2.00	1.40	.49
4.	Lecture pace is too fast.	1.00	4.00	2.44	.90
5.	You simplify the actual lesson onto small steps.	1.00	4.00	2.79	1.01
6.	You provide realistic experience for concept building.	1.00	4.00	3.25	.81
7.	You use visual aids as much as possible.	1.00	4.00	3.04	.74
8.	You keep on moving in the classroom during lecture.	2.00	4.00	3.31	.55
9.	You have made peer support groups in the classroom.	1.00	4.00	2.58	.90
10.	Students are given additional time in class assignments.	1.00	4.00	2.77	.81
11.	You give extra time to your students with hearing impairment after class.	1.00	4.00	2.21	.74
12.	You communicate with sign language interpreters regarding your lectures.	1.00	4.00	2.33	.72
13.	You reinforce your students with hearing impairment to increase their educational performance.	1.00	4.00	3.31	.66
14.	Students are given additional time during exams.	1.00	4.00	1.75	.96

N=48

Table 1 shows the mean and standard deviation value of each statement.

About 50% teachers claimed that they provide extra time to SWHI after classes as well as they communicate with sign interpreters to enhance understanding of SWHI in the classroom.

Major findings of the present study that need to be highlighted are:

i.   SWHI are not able to read different books with comprehension.
ii.   SWHI are not able to take notes of daily lectures.
iii. Note-takers are not available in the classroom before every lecture.
iv.   SWHI are not given additional time during exams.

Perceptions of SWHI Related to Challenges Faced by them in HEIs

Majority of the SWHI in HEIs were of age 20 to 23 years and out of 246 students, 57.3% male and 42.7% were female. So, majority of male SWHI were studying in HEIs. According to Pakistan statistics 2016- 17 adult literacy rate of the male was 69.1% and of the female was 45.2% and gross enrollment ratio (GER) of male was 42.9% and female was 34.9% in higher secondary institutes of Pakistan. However, keeping in view, the gender rate in colleges of general education the gender parity in special education is much better. Majority of the SWHI were studying in Government Degree College of special education.

Table 2

Sr. No.	Statements	Min.	Max.	Mean	S. D
1.	You are able to read different books with comprehension.	1.00	4.00	1.65	.64
2.	You take notes of daily lectures taught daily in the classroom.	1.00	4.00	1.52	.65
3.	Note takers are available in your classroom before every lecture.	1.00	4.00	1.57	.59
4.	Lecture pace is too fast.	1.00	4.00	2.23	.72
5.	Your teachers use visual aids as much as possible.	1.00	4.00	2.48	.75
6.	Your teachers keep on moving in the classroom during lecture.	1.00	4.00	2.60	.82
7.	Your teachers give you additional time in class assignments.	1.00	4.00	2.51	.78
8.	Your teachers give you extra time after class.	1.00	4.00	2.12	.91
9.	Your teachers appreciate you on showing good educational performance.	1.00	4.00	2.87	.86
10.	You are given additional time during exams.	1.00	4.00	1.53	.66

N= 246

Table 2 shows the mean and standard deviation value of each statement.

Table 2 shows that on average mean score 2.23 & 2.48 (about 50%) SWHI complained that their teachers lecture pace is fast, but teachers use visual aids. They further claimed that their teachers use to move in the classroom during lecture as a result they are not able to learn lessons through lip reading.

Following are the major findings of the present study that need to be highlighted:
i. SWHI are not able to read different books with comprehension.
ii. SWHI are not able to take notes of daily lectures in the classroom.
iii. Note takers are not available in classroom before every lecture.
iv. SWHI are not given additional time during and after class and even during exams.

Table 3

Comparison between the opinions of SWHI and their teachers

Dependent Variables	Respondents	N	Mean	S. D	t	Sig
Challenges Faced By SWHI	Students	246	21.0894	3.58343	-22.313	.000
	Teachers	48	34.1875	4.36454		

Table 3 shows the mean, standard deviation and significant difference in the perception of teachers and students.

The independent sample t-test in table 3 shows that there is significant difference in the perception of SWHI and their teachers regarding challenges faced by SWHI in HEIs (t = -22.313, Sig. = .000, Mean students= 21.08, Mean teachers = 34.18). SWHI reported that they face multiple challenges during studies in HEIs.

Conclusions and Discussion

This study has strived to identify challenges at HE level in inclusive and segregated HEIs for the access and success of every SWHI and to make HE more fruitful and relevant to their lives. The study of Miller (2008) described that the students who enter in HEIs face problems to get academic assistance. Foster, Long & Snell (1999) reported that educational settings pose problems for SWHI in HEIs. All teachers and SWHI have consensus that SWHI are not able to read different books with comprehension during their studies in HEIs. Lang (2002) also suggests that SWHI withdraw from higher education programs because they face difficulty in choosing subjects according to their taste and nature. As according to Knoors & Marschark (2012) sign language encourages the development of SWHI, and there is no evidence of any unconstructive effects of sign language. So, to achieve these goals, however, we need a continuing adjustment of sign language interpreters in HEIs.

The present study concluded that teachers use to move from one place to another during their lectures this fact also revealed by Fuller, Bradley, & Healey (2004) that students complain against lecturers who continually speak while turning away in the class room. The opportunities to involve in class discussion are limited for SWHI as a result they become frustrated at the rapid speed of discussion. SWHI are not able to read different books with comprehension and they are not able to take notes of daily lectures

that are taught daily in their classroom. Moores (2001) also claimed that SWHI have limited reading and writing skills.

Note takers are not available before every lecture. As a result, SWHI do not have complete access to information. For the complete access to classroom information note-takers should be designated in the classrooms even in the presence of sign language interpreters so that the SWHI can be able to concentrate on the speaker, interpreter, and other visual cues. Fuller *et al. (*2004) has investigated that there is inflexibility in all aspects of teaching and learning so that SWHI do not have access to information.

SWHI are not given additional time during exams its means academic evaluation system is not modified to meet the needs of SWHI like this Holloway (2001) also reports that students with disabilities in HE demands additional time to learn new lessons and during exams.

Recommendations

1. Quality education should be provided to SWHI at all levels so that they may be able to read different books at HE level and sign language interpreter should be available during and after class to assist them in reading with comprehension.
2. Note takers should be available in all HEIs during every lecture because notes are very helpful to learn after class. In the absence of note takers, computerized speech recognition software should be installed in the classrooms to change any delivered lecture into a comprehensible text that can be easily read by SWHI and interpreted by the sign language interpreters after the class.
3. In the presence of SWHI in the classroom teachers should not move from one place to other. Face of teachers should be in direct focus of SWHI so that they may be able to learn through lip reading easily.
4. SWHI at higher education level are very active and energetic youth in any society of the world, so efforts of stakeholders to accommodate them may be very fruitful.
5. Positive and accommodating attitude of teachers may be very helpful to develop SWHI as fruitful independent citizens.

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