Schools for Children with Hearing Impairment in Dhaka City: Perspective of Available Facilities

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A research presented to the
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In partial fulfillment of the requirements for the degree of
B.Sc. in Speech and Language Therapy

March, 2015
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Perspective of Available Facilities

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Principal, BHPI, CRP, Savar, Dhaka-1343
I am Satia Muntaha declare that, the study will not be harmful for the participatory Schools. Then I would like to ensure that all data and literature were stated correctly. In that case all discussion of this research project is mine and I am only responsible for any mistake in the whole study.

Signature

..............................

Satia Muntaha

4th year, B. Sc. In Speech and Language Thearpy
Dedicated to my dearly loved parents and family members..............................
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Glossary of Terms

**AT**: Assistive Technologies

**BHPI**: Bangladesh Health Professions Institute

**CRP**: Centre for the Rehabilitation of the Paralysed

**ECE**: Early Childhood Education

**HA**: Hearing Aid

**IDEA**: Individuals with Disabilities Education Act

**IEP**: Individual Educational Program

**SLT**: Speech and Language Therapy

**SNS**: Special Need School

**UNICEF**: The United Nations Children’s Found

**TLM**: Teaching Learning Materials

**WHO**: World Health Organization
First gratitude goes to almighty Allah who has given me enough ability, patience and intelligence to do this study successfully. I would like to gratitude towards my parents who constantly encourage me to carry out this study. Then my knowledge goes to people who help me in different situation in different time to complete the research.

I am much indebted to my honorable supervisor Md. Jahangir Alam for helping me by providing idea and guideline in every steps of the study. I want to remember my all friends with the feelings of gratitude for their inspiration and support in different critical situation of the project. I am grateful to all the principals of the school for children with hearing impairment for giving me to permission to collect data. I would like to thanks to all the seniors in my department. I would also like to offer very special thanks to Speech and Language Therapy Dept. and Bangladesh Health Professions Institute (BHPI) due to providing me the opportunity to do this study.
Title: “Schools for Children with Hearing Impairment in Dhaka City: Perspective of Available Facilities.”

Introduction:
Hearing impairment refers to complete or partial loss of the ability to hear from one or both ears. About two million people suffer from hearing impairment in Bangladesh (Anam, 1996). The school for hearing impairment for children with hearing impairment is the best place to get facilities beside of education for improving communication skills. Dhaka city have some hearing impairment schools so Investigator try to find out the available facilities of human resources, educational resources and therapy materials in those schools.

Aim & Objective:
The aim of the study was to explore the facilities available in hearing impairment schools in Dhaka city with hearing impairment. The aim was fulfilled under two specific objective as to explore the educational resources and therapy materials in hearing impairment school and to identify the availability of human resources for children with hearing impairment in hearing impairment school.

Methodology:
Survey methodology was used study method. Six schools were selected from 10 schools by following simple random sampling. Checklist was the data collection tool. The interview and observation were the data collection methods under this study.

Result:
The investigator found in Dhaka city most of the hearing impairment schools have big facilities gap like not available human resources, educational resources and therapy resources.

Conclusion:
These results suggest that, most of the schools need to improve their facilities because they had limited facilities.

Keywords: Hearing impairment (HI), Facilities.
1.1 Introduction

Bangladesh is a developing country with a huge population. Disability is a burning issue in this country. The United Nations Children’s Fund (UNICEF) estimated that there are more than 150 million children with disabilities in the developing countries (Zaman, 2002). The World Health Organization (WHO) estimated, one out of ten person have some type of disability in the Asian & Pacific region and there are 400 million people with disability, comparison two third of world population. Hearing impairment is one of the most common disabilities in the world (Cooper, 1975). The World Health Organization (WHO) in 2006 has revised that, hearing impairment refers to complete or partial loss of the ability to hear from one or both ears. The level of impairment can be mild, moderate, severe or profound.

The prevalence of hearing impairment is over 5% of the world’s population – 360 million people – has hearing loss (328 million adults and 32 million children) (Deafness and Hearing Loss, 2014). Each year in the United States, more than 12,000 babies are born with hearing loss (Deafness and Hearing Loss, 2014). The U.S. Department of Education (2002) reported that, during the 2000-2001 school year, 70767 students aged 6 to 21 (or 1.3% of all students with disabilities) received special education services under the category of hearing impairment. Lowe (1993) suggested that (as cited in Anam, 1996) there is 1.5 to 2 million hearing impaired in Bangladesh, of whom half a million are children. The Bangladesh Bureau of Statistics estimated in 1998 that there are 13,000,000 people with disabilities in Bangladesh where 28% of the children had hearing impairment (Bangladesh Protibandhi Kallayan Somiti, 2007). So, it is clear that hearing impairment is a vast area in the disability field of Bangladesh.

The children with hearing impairment has some common characteristics like unable to speak, if speak then unintelligible, language problem, communication problem and social interaction problem (Osberger and McGarr, 1982). For that reason they are unable to follow the normal education system like normal curriculum, usual teaching methods and
That’s why children with hearing impairment are needed special school with special education as well as special teacher and individual educational plan. Special schools for hearing impairment could provide them more facilities for achieving education (Anam, 1996).

In Bangladesh there are not so many special schools for children with hearing impairment. In Dhaka city there are some schools for children with hearing impairment. But may be they have limited facilities such as- lack of human resources, educational resources and therapy resources facilities. Although the schools of hearing impairment are not available with obtainable facilities, but approximately 15% children with hearing impairment are enrolled in special schools of Bangladesh (Rasheed, 2003). So, the lack of facilities of hearing impairment is common problem in Bangladesh. For that reason, investigator conducted this study on special schools for children with hearing impairment in Dhaka city: perspective of available facilities.

1.2 Background and Literature Review

Hearing is the ability to perceive sound by detecting vibrations through an organ known as ear. It is one of the traditional five senses. It is very important to hear sound because a human being communicates with each other through good hearing. Information is received using ear by hearing with other people (Hearing, n.d.). Hearing impairment (HI) is a complete or partial loss of the ability to hear from one or both ears (Hearing Impairment Worksheet, 2010). By damaging to the ‘hearing centre’ of the brain and the ears, hearing impairment can occur (WHO, 1997). Hearing impairment continuous to rise because of the lack of consciousness of causes: malnutrition, marriage between close relatives, untreated ear infections and high fever from certain diseases, such as typhoid (Disability Welfare Act, 2001).

There are various kinds or degree of hearing impairment such as-if the children are able to hear quite a lot of sounds they will be referred a ‘mild hearing loss’. If the children are only able to hear sounds with hearing aids they will be ‘moderate hearing loss’ and when
the children are able to hear sounds very little or nothing than the children will be ‘severe or profound hearing loss’ (WHO, 1997). There are two specific types of hearing impairment that are conductive hearing impairment, which is caused by a mechanical problem in the ear canal of the middle ear that blocks the conduction of sound or reduces sound. Another type is sensory neural impairment, which is caused by damage to the inner ear or auditory nerve pathways in the brain (Anam, 1996).

School education for children with hearing impairment is an effective issue and Bangladesh has some schools for children with HI. Children with hearing impairment required special care and special facility. Hearing impairment school provides these facilities. Hearing impaired children need special education service. Schools need to be categorized as special education classes. The classes need to be designed specifically for students with hearing impairment with special education teachers (United States Government Accountability Office, 2005). The most effective student & teacher ratio is 3:1 and class sizes of 6 students are therefore standard. Every teacher of the hearing impairment school needs one assistant for each class (Baron and Bolton Cohen, 2002). The special teachers of the school need to work collaboratively with speech and language therapist, educational psychologist, social worker. (Dunlop et al. 2009). Noland and Gabriel (2004) claimed that a multidisciplinary team is important for working collaboratively as an intervention recommendation in a special school. Teachers, speech and language therapist, and audiologist can help in developing the oral communication skills gradually (Osberger & McGarr, 1982). Stroke (2007) is also found that a multidisciplinary team in school is important in order to prepare an individual educational plan. To provide these educational services and therapeutic interventions, every school should have various special equipments and assistive technology. Because various special equipments and assistive technology help to improve the communication skills, organization, motivation, academic skills, independence, and attention of students with hearing impairments. Assistive technologies (AT) are computers, overhead projectors, photo albums, laminated photographs, activity schedules, picture communication symbols etc (Ennis-Cole and Smith, 2011). From the view of literature a special needs school (SNS) should be developed by the human resources such as teacher, psychologist,
audiologist, social worker, speech and language therapist. Educational resources are curriculum, special books, pen, pencil, board, special teaching methods and therapy materials are ball, picture cards, story book, and photo album. In Bangladesh educational facilities for hearing impairment children are offered by mainly non-governmental organizations rather than governmental organizations. There are some school for children with HI in Dhaka city including: HICARE school, SHAHIC, National Special Education Centre, Salvation Army Deaf School, Dhaka Deaf High School. Most of the schools do not have available human resources (like- lack of skilled professionals), educational resources, and therapy resources (Anam, 1996). Most of the school does not follow any standard model for providing services. For this reason, investigator conducted this study to find out facilities of hearing impairment schools for children with hearing impairment around Dhaka city.
1.3 Significance of the Study:

In this study researcher was give information to the school authority that what educational method, human resources and therapy materials are needs for their schools. Also provide information that what facilities they should improve in their schools. It was increase their knowledge about the school facilities. In this study will show the numerical statistics, like how many schools have speech and language therapist to provide speech and language therapy service. So the concerned person of SLT department can ensure about it and try to promote SLT profession by creating SLT post in schools of hearing impairment. Because Speech and Language Therapist works with those children who have communication difficulties and children with HI is one of them. That’s why this study may help the speech and language therapist for better understanding of school facilities for children with HI.

So, this study was be helpful to guide the schools authority for improving their school facilities and service for children with HI.
1.4 Operational Definition

**Keyword: Hearing impairment, Facilities**

**Hearing Impairment**

In 2004 the Individuals with Disabilities Education Act (IDEA), formerly the Education of Handicapped Act comprises “hearing impairment” and “deafness” as two different terms. Hearing impairment can be defined by IDEA as “an hearing impairment, whether permanent or fluctuating that adversely affects a child’s educational performance.” Deafness can be defined as “a hearing impairment that so severe that the child is impaired in processing linguistic information through hearing, with or without amplification.” Hearing loss can generally respond to auditory stimuli, so hearing impairment means any level or grade of hearing loss (IDEA, 2004). The World Health Organization (WHO) in 2006 has also revised the definition of hearing impairment and deafness that hearing impaired refers to complete or partial loss of the ability to hear from one or both ears and deafness refers to the complete loss of ability to hear from one or both ears.

In this study, hearing impairment means it is the most common problem of the children and this may affect the child’s communication, education, learning, social and behavioral skills, they show some common sign as - speechless or talk with own self, communication problem like receptive language, expressive language.

**Facilities**

Facilities mean opportunities for doing something possible as a service, buildings, pieces of equipments etc (Oxford word power dictionary, 1997) and the facilities available in special needs school means availability of special educators, psychologist, accessible environments, special equipment, communication boards etc, (Heward and Orlansky, 1980).
In this study facilities mean available facilities in Bangladesh hearing impairment schools like human resources (teacher, speech and language therapist, social workers, psychologist), therapy materials (picture, object, etc) and educational resources (teaching method, teaching aids, special curriculum, learning facilities, educational program etc).

1.5 Research Aim and Objective:

Aim:
To explore the facilities available in hearing impairment schools in Dhaka city for children with hearing impairment?

Objective:
1. To explore the educational resources and therapy materials in hearing impairment schools.
2. To identify the availability of human resources for children with hearing impairment in hearing impairment schools.
In this chapter, study design, the sampling and data collection process of the study was discussed. This chapter describes setting of the study, exclusion and inclusion criteria of the sample and the procedure of data collection. There was also be some argument about ethical issues of the study. In general, this chapter is designed to discuss about the method of this study.

2.1 Study Design
Cross sectional study design was used to conduct this study. The cross sectional survey provides information about larger population form a smaller number of samples (Bailey, 1997, p. 66). The survey was primarily used to measure characteristics of a population (Depoy and Gitlin, 1998, p.66). Particularly investigator used this study design to find out the facilities available in hearing impairment schools. There information was collected from samples at one point of time and the questions were asked on events and sites (Bowling, 1997, p.217). There investigator used checklist questionnaire on school events, that’s why this study design was selected.

Noland and Gabriel (2004) and Roy (2003) has conduct the study on special schools and they used this types of study design to develop a model process for children with autism in inclusive school and comparative study between two schools

2.2 Study Place
The study was conducted in schools for children with hearing impairment in the Dhaka city. Bangladesh is a large area and here many hearing impairment schools. Dhaka city has some hearing impairment schools. So it was easy to take sample from schools. So the investigator selected this place.
2.3 Study Population
Deciding the suitable number of participant to take part in the study is necessary for good research (Hicks, 2000, p.25). So, schools for children with hearing impairment in Dhaka city were selected as population of the study.

2.4 Sample Size
It is a critical issue to determine the participants’ number or sample size (Depoy & Gitlin, 1998). There is no standard formula to select the number of sample. It fully depends on the characteristics of the study (Hicks, 1999). Depending on the population, data collection techniques, procedures of recruitment and the costs of conducting the study sample size may be big or small (Depoy & Gitlin, 1998). The investigator took 6 schools of Dhaka city for data collection. The investigator took a small number of samples because as the investigator could analyze deeply the data that came from those schools.

2.5 Sampling Procedure
Simple random sampling method was used to select the study sample from the study population. Initially the investigator considered 10 hearing impairment schools to conduct this simple random sampling procedure. Lottery was the simple random sampling technique here. The six schools were selected as study samples by lottery. The whole procedure was done by the student of Speech and Language Therapy department to make it more reliable and transparent. By using this method the investigator was able to save time and cost and the investigator went to the population who were easy to engage and likely to be participant (Bowling, 1998).
2.6 Sampling Criterion

2.6.1 Inclusion and Exclusion criteria
Hearing schools for children with hearing impairment were included as study sample. Normal schools, some inclusive schools like as-autism were excluded for this study in the capital city of Bangladesh.

2.6.2 Rational behind of sample characteristics
The aim of the study was to find out available facilities in hearing impairment schools for children with hearing impairment. To achieve this study aim it was important to select school for children with hearing impairment. Investigator made these inclusion criteria to select the study sample from study population. It was hard to find out the purely hearing impairment school that’s why all hearing impairment schools for children with hearing impairment were selected as study population or subjects. So, all of the hearing impairment schools for children with hearing impairment were included in inclusion criteria of the study sample.

2.7 Data Collection Tool
Checklist was the data collection tool for this study. The checklist was developed following the literature. Then the investigator collected information on characteristics of study population from these literatures. The checklist was developed by considering characteristics of study population as human resources, educational resources ad therapy resources. The school infrastructure checklist of Hirano (2009) is given in Annexure- (10). There are 17 items in the checklist. The investigator also tried to include all types of information under the schools facilities. The data collection checklist is given in Annexure-(9). The other supportive materials like pen, pencil, eraser, white paper, clip board were also used as data collection tool.
2.8 Data Collection Procedure
The investigator used mixed data collection procedure to collect the data. Data collection procedures were face to face interview with school principals and observation. According to Fraenkel and Wallen (2000, p. 436) face to face interview is the best way to get full cooperation of the participant in a survey. Firstly investigator took consent form the school principal and informs him/her about the study and purpose of the study. The investigator took face to face interview with school principal to figure out the best answer from the checklist. Checklist of the data collection tool was structured by close ended question like multiple types question. Interview was conducted in bangle so that participants can understand easily. On the other hand after the interview the investigator observed the schools classroom, therapy materials and TLM etc of the school. The duration of data collection was 3 weeks. The approximant time duration for each school response was 1 hour.

2.9 Data Analysis
Data analysis is a crucial part of any study or research. There are many statistical methods of the data analysis but the investigator used descriptive statistic analysis. The investigator used descriptive method because generally descriptive analysis is used in combination with survey method (Hicks, 1999). The three most commonly used forms of data are graphs, measure of central tendency and measure of dispersion (Hicks, 1999). There are many useful ways to illustrate descriptive data as well as tables, bar graphs, pie charts (Bailey, 1997). The investigator used the bar graph technique for analyzing data, calculated as percentages and table. This was used because it is an easy and sample method so that the reader could understand the findings easily (Hicks, 1999).
2.10 Ethical Consideration

The investigator maintained ethical consideration in all aspect of the study. The investigator took permission from the approval committee of department of Speech and Language Therapy to conduct the research project. The investigator obtained permission to conduct research from Bangladesh Health Professions Institute (BHPI) an academic institute of CRP. Before conducting the research, it is necessary to gain consent to the participant (Baily, 1997, p.120). So the investigator developed a consent form. During the interview investigator took permission from the schools principles. All participants were informed about the aim of the study at the beginning of the study. Because, a participant has rights to know about their participatory effective (Hicks, 1999, p.120). Investigator also ensured there that all data and recorded information were keep confidentially and they would not get any harm from the study.
Chapter 3

Every HI school has different types of facilities. In this study investigator tried to find out the availability of educational resources, human resources and therapy resources.

3.1 Human Resources

3.1.1 Establishment of the schools

Figure 1 shows that, among the 6 schools, 33.33% (2) were established 48-52 years ago, 33.33% (2) schools were established 27-32 years ago. Also another 33.33% (2) were established 16-20 years ago.

Figure 1: Establishment of the schools
Table 1: Different professionals in the schools

Table 1 shows that among all schools, 100% (6) schools had teacher. Where by 33.33% (2) schools had available SLT and social worker. And also 33.33% (2) schools had available audiologist. Beside those here 16.67% (1) school had other (ENT doctor, music, and dance) professionals facilities. And also 0% (6) schools had no psychologist.
3.1.2 Teacher Student Ratio in the Classroom:
The literature suggested that, the types of teacher student ratio are different from school to school (Baron and - Bolton Cohen, 2002, p.62). The study showed that 1:3, 1:4, 1:6, 1:13 types of teacher student ratio. Where by investigator found that…….

![Teacher student ratio in the classroom](image)

**Figure 2: Teacher Student Ratio in the Classroom:**

This figure showed that among 6 schools, 21.67% (1) school was following 1:3 teacher student ratios. Then 23.33% (2) schools were following 1:4 teacher student ratios. Another 26.67% (2) schools were following 1:4 teacher student ratios. The figure also demonstrated that 18.83% (1) school was following 1:3 teacher student ratios.
3.2 Educational Resources:

Educational resources were teaching methods, teaching aids, TLMs, special curriculum, sign language, lip reading, outreach educational program and learning facilities in this study.

3.2.1 Types of Teaching Method

According to the study, teaching methods are lecture, demonstration, role play, story telling, and mixed. Besides those there are also another teaching method as Total Communication method. The figure (3) shows that, among 6 schools, 100% schools applied lecture method. 83.33% (5) schools used demonstration methods. The figure also shows that 66.67% (4) schools used role play and story telling methods. And also 100% (6) schools applied mixed methods. Only 33.33% (2) schools used total communication methods with this students in classroom. In this figure shows that 66.67% (4) schools not applied total communication methods. Total communication method is very effective for the hearing impairment children (Anam,1996).

![Figure 3: Teaching methods those were applied in the classroom](image)
### 3.2.2 Teaching Aids

This table shows that, among 6 schools, 100% schools were using board & marker and also picture and poster cards. 33.33% schools used multimedia. 50% schools used overhead projector and mixed teaching aids for students. This table also shows that 16.67% schools used other teaching aids.

<table>
<thead>
<tr>
<th>School no.</th>
<th>Board &amp; Marker</th>
<th>Poster &amp; Picture Cards</th>
<th>Multimedia</th>
<th>Over Head Projector</th>
<th>Mixed</th>
<th>Others</th>
</tr>
</thead>
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<tr>
<td>School 1</td>
<td>+</td>
<td>+</td>
<td>_</td>
<td>_</td>
<td>_</td>
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<tr>
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<td>+</td>
<td>+</td>
<td>_</td>
<td>+</td>
<td>+</td>
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<td>School 4</td>
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<td>School 5</td>
<td>+</td>
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<td>100% (+)</td>
<td>100% (+)</td>
<td>33.33% (+)</td>
<td>50% (+)</td>
<td>50% (+)</td>
<td>16.67% (+)</td>
</tr>
</tbody>
</table>

Here (-) means not available and (+) means available

**Table 2: Teaching methods those were using in the classroom**
3.2.3 Educational Programs

This table shows that, among 6 schools 66.67% schools use sign language and lip reading. 100% schools provided outreach educational program and 83.33% schools were using special curriculum.

<table>
<thead>
<tr>
<th>School no.</th>
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</tr>
<tr>
<td>School 1</td>
<td>+</td>
</tr>
<tr>
<td>School 2</td>
<td>+</td>
</tr>
<tr>
<td>School 3</td>
<td>+</td>
</tr>
<tr>
<td>School 4</td>
<td>_</td>
</tr>
<tr>
<td>School 5</td>
<td>+</td>
</tr>
<tr>
<td>School 6</td>
<td>_</td>
</tr>
<tr>
<td>Total Percentages</td>
<td>66.66% (+)</td>
</tr>
</tbody>
</table>

Here (-) means not available and (+) means available

Table 3: Different types of educational programs in the schools
3.2.4 Educational resource and classroom

This figure shows that only 33.33% school has audiology test room and only 16.67% school has no sound proofed room in the classroom.

<table>
<thead>
<tr>
<th>School no.</th>
<th>Educational resource and classroom in the schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hearing aid</td>
</tr>
<tr>
<td>School 1</td>
<td>+</td>
</tr>
<tr>
<td>School 2</td>
<td>_</td>
</tr>
<tr>
<td>School 3</td>
<td>+</td>
</tr>
<tr>
<td>School 4</td>
<td>+</td>
</tr>
<tr>
<td>School 5</td>
<td>_</td>
</tr>
<tr>
<td>School 6</td>
<td>+</td>
</tr>
<tr>
<td>Total Percentages</td>
<td>66.66% (+)</td>
</tr>
</tbody>
</table>

Here (-) means not available and (+) means available

Table 4: Educational element and classroom in the schools
3.2.5 Teaching Learning Materials

The table shows that, among all the schools 100% schools had marker, routine, board, story book, pen and pencil. 66.67% school had schedule board. 33.33% school had picture book and calendar. And 50% school had picture card and objects.

<table>
<thead>
<tr>
<th>TLMs name</th>
<th>By observation</th>
<th>Total percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sc 1</td>
<td>Sc 2</td>
</tr>
<tr>
<td>Schedule Board</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Marker</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Routine</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Board</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Picture Book</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>Picture Cards</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>Objects</td>
<td>+</td>
<td>_</td>
</tr>
<tr>
<td>Story books</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Calendar</td>
<td>+</td>
<td>_</td>
</tr>
<tr>
<td>Pen, pencil</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Choice Board</td>
<td>_</td>
<td>_</td>
</tr>
</tbody>
</table>

Here (-) means not unavailable and (+) means available

Table 5: TLMs of the school
3.2.6 Learning Facilities

This figure shows that, among 6 schools 100% schools had art, dance, play events and mixed learning facilities. The diagram also demonstrates that 83.33% school had music facilities, 50% school had others learning facilities like as- drama, handicrafts etc.

Figure 4: Different learning facilities in the school

3.3 Therapy Resources

Therapy resources and education were used together in hearing impairment schools. In this study the therapy resources are types of intervention and therapy materials.
3.3.1 Types of Intervention:

This figure showed that, among 6 schools, 67% schools were giving intervention in one to one and group basis. The figure also showed that there had 33% school no giving any types of intervention.

Figure 5: Types of Intervention
3.3.2 Therapy Materials:
Therapy materials of the schools are mirror, picture cards, wood objects, flash cards, communication board, concept object with colour, shapes, problem solving puzzle, toys auditory miter etc.
In this table investigator showed that, 50% schools used picture cards and block audiometer. 33.33% schools used flash cards, mirror, and concept objects. This table also shows that 16.67% schools used puzzle and wood objects. 66.67% schools are use toys. But this table also shows that any school no use communication board.

<table>
<thead>
<tr>
<th>Therapy materials name</th>
<th>By observation</th>
<th>Total percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sc 1</td>
<td>Sc 2</td>
<td>Sc 3</td>
</tr>
<tr>
<td>Picture cards</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Flash cards</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>Puzzle</td>
<td>+</td>
<td>_</td>
</tr>
<tr>
<td>Mirror</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>Audio meter</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>Concept objects</td>
<td>+</td>
<td>_</td>
</tr>
<tr>
<td>Wood objects</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>toys</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Communication board</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>Block</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Here (-) means not available and (+) means available

Table 6: Therapy resources in the school
Chapter 4  

Discussion

This section is one the important part of a research. The major thrust of the discussion is to explain the findings. This section also provides statistical analysis in a systemic way and also explains the interpretation of analyzed findings.

4.1 Human resources

4.1.1 Establishment of the schools and deferent professional in schools

From the literature and according to the study the human resources are the teachers, speech and language therapist, occupational therapist, physiotherapist, social worker, psychologist, musician, artist, dancer etc and they were working collaboratively (Working together: A Guide to Special education and Student Services, n.d.; Schwrtz and Drager, 2008). Table 1 showed that among all schools, 100% (6) schools had teacher. Where by 33.33% (2) schools had available SLT and social worker. And also 33.33% (2) schools had available audiologist. Beside those here 16.67% (1) school had other (ENT doctor, music, and dance) professionals. Also 0% (6) schools had no psychologist. But a special school for ASD, HI etc schools must have special educators, psychologist and additional therapist for additional problem about their typical developments (Gwynne-Atwater, 2011). That’s why investigator suspected that those schools were not available human resources. The table also shows that all professionals were not well qualified. Most of the schools had S.S.C. passed. Though the schools were very much older but they were not providing more facilities. Figure-1 showed that those schools were not much more considered better human resource facilities.

4.1.2 Teacher Student Ratio in the Classroom

The teacher and student ratio is an important issue. According to Mehli (2005), 1:1 teacher student strategy is better and effective but it is costly. For these reason 1:2 or 1:3 student ratio are applicable. Actually accomplishments of the schools are depending greatly on the professionals of the particular centers (Ellis, 1990). That’s why
professionals member are the major factors in this types of schools. In this study here only 1 school follow 1:3 ratio and other school are not follow this ratio in school classroom. The figure 2 shows that only one school was following 1:3 teacher student ratios. In this study in figure-2 investigator found that those schools did not maintain any specific teacher student ratio in the classroom. Finally according to the discussion investigator found that human resources are the big challenges for every HI schools.

4.2 Educational Resources:

4.2.1 Types of Teaching Method

Lectures, demonstration, role play, story telling, and mixed are the method of a hearing impairment school. Another teaching method is Total Communication method (Oberger and McGarr, 1982). Total communication method is very effective for the HI children (Anam, 1996). In figure-3 investigator found that, among 6 schools, 100% schools applied lecture method. 83.33% (5) schools used demonstration methods. The figure also shows that 66.67% (4) schools used role play and story telling methods. And also 100% (6) schools used mixed methods. And only 33.33% (2) schools used total communication methods upon this students in classroom and 66.67% (4) schools did not apply total communication methods. So, from the above discussion is most of the schools are not following evidence based teaching methods.

4.2.2 Teaching aids:

From the literature and by the view of the study the teaching aids are board and marker, picture and poster cards, multimedia, over head projector (Ennis-Cole and Smith, 2011). But in table-2 investigator found that 100% schools were using board & marker and picture & poster cards. 33.33% schools used multimedia, 50% schools used over head projector and mixed teaching aids for students. Here investigator also found that 16.67% schools used other teaching aids.
So, from the above discussion it is clear that most of the schools do not are following evidence based teaching aids.

**4.2.3 Educational program, resource and classroom facilities:**

From the literature and according to the study the educational programs are sign language, lip reading, special curriculum (IEP, ECE etc), and sound proofed room. Outreach educational programs are attending in cultural competition, art competition, visiting, study tour, attending in fair etc. According to the Hussain, Abdullah, Raza, (2011) a hearing impaired school must have resource like providing hearing aid. Also according to Doorn (2010) hearing impairment school provides these facilities like ensure the child has an optimal hearing and listening environment in the classroom. But in this study investigator found that, among 6 schools 66.67% schools used sign language and lip reading. 100% schools provided outreach educational program and 83.33% schools used special curriculum (see table no.3). The investigator also found that, only 33.33% school has audiology test room and only 16.67% school has no sound proofed room in the classroom (see table no.4).

So, from the above discussion it is clear that in Dhaka city hearing impairment schools need to improve their educational programs, resource and classroom facilities.

**4.2.4 Teaching Learning Materials**

TLMs is very important and Hirano (2009) claimed that, every special school should have those TLMs as pen, pencil, paper, schedule board, picture cards, board, marker and dairy. In the table 5, investigator found that, among all the schools 100% schools had marker, routine, board, story book, and pen, pencil. 66.67% school had schedule board. 33.33% school had picture book and calendar and 50% school had picture card and objects. Finally according to the findings it is clear that, this school needs to increase their TLMs for providing better educational facilities.
4.2.5 Learning Facilities:
From the literature and by the view of the study the learning facilities are art, dance, play events, music etc (Baron-Cohen and Bollon, 1993, p.70).
Among 6 schools 100% schools had art, dance, play events and mixed learning facilities. 83.33% school had music facilities, 50% school had others learning facilities like as-drama, and handicrafts etc. (see figure no.4).
So, from the discussion it is clear that these schools are following evidence based learning facilities.

4.3 Therapy Resources:

4.3.1 Types of Intervention and therapy materials:
Different types of intervention are using in the school context (Oberger and McGarr, 1982). In this study investigator showed two types of intervention like one to one and group intervention. The schools can use both types of intervention like one to one and group at a time,. In figure-5 investigator found that, among 6 schools, 67% schools were giving intervention in one to one and group basis. The figure-5 also found that, 33% schools were not giving any types of intervention.
Mostly for therapeutic intervention mirror, picture cards, wood objects, flash cards, communication board, concept object with colour and shapes, problem solving puzzle, toys and auditory miter are more important (Hess, Mirrier, Heflin and Ivey, 2007). This study (table no. 6) found that, among 50% schools used picture cards and block and audiometer, 33.33% schools used flash cards, mirror, and concept objects. This table (6) also showed that 16.67% schools are used puzzle and wood objects and 66.67% schools used toys. But no school used communication board.
So, it is clear that, hearing impairment school needs to improve their therapy materials and provide better intervention facilities.
Finally, according to the investigator a HI school considers a multidisciplinary team and the team members are teacher, speech and language therapist, psychologist, social worker and they working collaboratively. But in our country most of the HI schools have big of facilities like lack of human resources, educational resources and therapy resources. That’s why those schools needs to improve these facilities doing evidence based practice.
Chapter 5  Limitation

This was an undergraduate study. There were some limitation and barriers during conducting of the research project. The investigator always tried to consider these limitations. The most important limitation was the lack of available literature like it was hard to find the relevant data for this study. The books on hearing impairment were not available there. So, most of the information were collected from the internet. In this study investigator considered that only one city can be selected for the study sample. That’s why it hampers the generalization of the study result. The interview schedule & interviewing skills were not enough to get in depth information from the participants because it was the first attempt for the investigator.
If anyone wants to conduct the study regarding the school facilities for children with HI in further. They can follow some recommendations this can use larger sample size. This study focused only three facilities of the HI schools. So, for further study will be done on other facilities. For further study, researchers will try to select not only Dhaka city but also other cities of the country as a place of study. Because it will be help to generalize the findings. Merely this study has considered some hearing impaired schools. So, for further study should consider other special school for children with special needs because it will make the research broad and standard.
This study can be helpful for the school authorities to identify the facilities gap and try to overcome those. This study also can be an information tool on school facilities for developing the model of HI school by improving their human resources, educational resources and therapy materials. This study can be helpful for speech and language therapy department. The department can arrange an advocacy program about the importance of speech and language therapist in HI school. This study will also be helpful for newly established HI schools to develop school facilities for children with HI. This study can be used as a conductor for guiding the speech and language therapy department of CRP. Because this study ensured that how many schools had no SLT. After that, the concern person of SLT department can suggest the school authority for taking SLT.
Chapter 8

Conclusion

Hearing impairment is one of the most common focusing problems in Bangladesh. Many researches were done under these sides. This study provided the general information on school facilities. This study will also provide the important guidance for developing new HI schools for children with HI. Education for children with HI is the important aspect they need special care. Though there are some HI schools in Bangladesh but they are not fulfilled with enough facilities. In HI school, several health professionals are working for children with HI. These professionals are working for developing their social interaction, communication, speech, language, daily needs activities. They are also working with them in schools for developing their social interaction, education, communication, speech, language etc. There are comparatively wide range of facilities and resources varies from school to school. Here investigator found that most of the schools do not have enough facilities such as lack of human resources, educational resources and therapy resources. But those are important for improving communication, education and other skills for children with HI.

Now Bangladesh is a developing country and here education and health sector is developing day by day. That’s why these types of study are important for developing the education sector for children with HI.
Reference List


Permission Letter for Research Project Conduction

Date: 03.11.2014
To
Head of the Department (Acting),
Department of Speech & Language Therapy
Bangladesh Health Professions Institute (BHPI)
CRP-Chapain, Savar, Dhaka.

Subject: Prayer for seeking permission to conduct the research project.

Sir,
With due respect to state that I am a 4th year student of B.Sc. in Speech and Language Therapy Department of Bangladesh Health Professions Institute, the academic institute of Centre for the Rehabilitation of the Paralyzed (CRP). I am sincerely seeking permission to conduct my research project as the partly fulfillment of the requirements of degree of B.Sc. in Speech and Language Therapy. The title of my research is, “Schools for Children with Hearing Impairment in Dhaka city: Perspective of Available Facilities”. The main objective of study is to find out available facilities in hearing impairment schools for children with hearing impairment.
So, I therefore pray and hope that you would be kind enough to grant me the permission of conducting the research and will help me to complete a successful study as a part of my course.

Your obediently,
Satia Muntaha
4th year, B.Sc in Speech and Language Therapy,
Bangladesh Health Professions Institute (BHPI)
CRP-Chapain, Savar, Dhaka.

<table>
<thead>
<tr>
<th>Course Coordinator</th>
<th>Signature and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Md. Jahangir Alam</td>
<td>Permission is given to conduct the study.</td>
</tr>
<tr>
<td>Head of the Department (Acting), Department of Speech &amp; Language Therapy BHPI, CRP, Chapain, Savar, Dhaka</td>
<td></td>
</tr>
</tbody>
</table>
Permission Letter for data collection

Date: 03. 11. 2014
To
Head of the Department (Acting),
Department of Speech & Language Therapy
Bangladesh Health Professions Institute (BHPI)
CRP-Chapain, Savar, Dhaka.

Subject: Prayer for seeking permission to data collection as part of research project conduct.

Sir,

With due respect I state that I am a 4th year student of B. Sc in Speech and Language Therapy
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conduct my research project as the partial fulfillment of the requirement for the degree of B. Sc
in Speech and Language Therapy. The title of my research project is “Schools for Children with
Hearing Impairment in Dhaka city: Perspective of Available Facilities”. The main objective of
study is to find out available facilities in hearing impairment schools for children with hearing
impairment.

Now I am seeking your kindness to approve me to start data collection as part of the research
project conduction and I would like to assure that anything of my research project will not
harmful for the participants.

So, I therefore pray and hope that your honor would be kind enough to grant me the permission
of data collection and this permission will help me to conduct a successfully study as a part of
my course.

Your obediently,
Satia Muntaha
4th year, B.Sc in Speech and Language Therapy,
Bangladesh Health Professions Institute (BHPI)
CRP-Chapain, Savar, Dhaka.

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<tbody>
<tr>
<td>Md. Jahangir Alam</td>
<td>You can proceed for the</td>
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<td>Department of Speech</td>
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<td>&amp; Language Therapy</td>
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<td>BHPI, CRP, Chapain,</td>
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</tr>
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<td>Savar, Dhaka</td>
<td></td>
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</tbody>
</table>
গবেষক সাতিয়া মুনতাহা বাংলাদেশ হেলথ প্রক্ষেপল ইন্টিটিউটের বি এস সি ইন স্পিচ এন্ড ল্যাঙ্গুয়েজ থেরাপি বিভাগের চেয়ার্ফ বর্ধমান ছাত্রী। এই গবেষণা স্পিচএন্ড ল্যাঙ্গুয়েজ থেরাপি বিভাগের অধ্যয়নের একটি অংশ। তার গবেষণার বিষয়ঃ বাংলাদেশের রাজধানী ঢাকায় অবস্থিত বাছাড়ি বাছাড়ি বিদ্যালয়ের উদ্দেশ্যে ও পর্যাৎ সুযোগ সুবিধা।

আলোচনার সময় ২০ থেকে ২৫ মিনিট। গবেষক সাক্ষাৎকারের জন্য অংশগ্রহণকারীর অনুমতি নিবেন। সাক্ষাৎকারের সকল তথ্য পেলো গবেষণার কাজে ব্যবহার করা হবে। তথ্য গুলো সম্পূর্ণ ভাবে গোপন থাকবে। শূন্যস্থানে গবেষক তথ্য গুলো ব্যবহারের অধিকার পাবে।

আলোচনার জন্য আমি কি আপনার অনুমতি পেতে পারি?  হাঁ.......... না.......... আমি উপরন্তু সকল তথ্য গুলো সম্পর্কে জানি এবং আমি এই গবেষণায় অংশ গ্রহণে সমর্পিত জাপন করছি।

অংশ গ্রহণকারীর সাক্ষরঃ..................................................তারিখ...........................................
গবেষকের সাক্ষর............................................................তারিখ...........................................
বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
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BHPI-Mirpur Campus, Plot-A/2, Block-A, Section-14, Mirpur, Dhaka-1206. Tel: 8020178,8053662-3, Fax: 8053661

তারিখঃ ০২.১১.২০১৪

প্রতি

অঙ্গুক্ত

ঢাকা ছেলে হাই স্কুল
মিরপুর, ঢাকা।

বিষয়ঃ ৪ রিসার্চ প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর প্রস্তুত

জন্য,

আপনার সম্মানের জন্য জানাই যে, পশ্চিমাঞ্চলের পুনর্নির্দেশ কেন্দ্রে-শিক্ষা বিভাগের শিক্ষা প্রতিষ্ঠান বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই) ঢাকা বিশ্ববিদ্যালয়ের অনুমোদিত বিভাগে ইন স্পিশ এন্ড ল্যাজুডোজ থেরাপি কোর্স পরিচালনা করে আসছে। উক্ত কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসাবে বিভিন্ন বিষয়ের উপর রিসার্চ ও কোর্সওয়ার্ক করা বাধ্যতামূলক।

বিএইচপিআই’র ৪র্থ পর্যায় বিভাগে ইন স্পিশ এন্ড ল্যাজুডোজ থেরাপি কোর্সের ছাত্রী সাধারণ মূলতাত্ত্বিক তার রিসার্চ সম্পন্নকরণ কাজের জন্য আপাত ০৪.১১.২০১৪ ইং তারিখ থেকে ৩০.১১.২০১৪ তারিখ পর্যন্ত আপনার প্রতিষ্ঠানে সফর করতে আহ্বান করি।

তাই তাকে আপনার প্রতিষ্ঠান সফরে সার্থক সহযোগী আদায়ের জন্য অনুরোধ করি।

ধনাদাশ্চেত

মের জাহানীর আয়াম
বিভাগীয় প্রধান
স্পিশ এন্ড ল্যাজুডোজ থেরাপি বিভাগ
বিএইচপিআই।
প্রিয়

দি সালভেশন অর্মি হিয়ারিং ইমপাটেড কুল
মিরপুর, ঢাকা।

বিষয়: রিসার্চ প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর প্রস্তুত

জনাব,

আপনার সময় অবগতির জন্য জানাচ্ছি যে, পকাতাহাতের পুনর্বিরেন্দ্র কেন্দ্র-সিএনসির শিক্ষা প্রতিষ্ঠান বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই) ঢাকা বিশ্ববিদ্যালয় অনুমোদিত বিএসসি ইন স্পীট এড ল্যাক্যুনেজ থেরাপি কর্ষণ্ডে পরিচালনা করে আসছে।

উক্ত কর্ষণ্ডের ছাত্রছাড়িতের কর্ষণ্ড কার্যক্রমের অংশ হিসাবে বিভিন্ন নিয়মনীয় উপর রিসার্চ ও কোর্সওয়ার্ক করা বাধ্যতামূলক।

বিএইচপিআই’র ৪র্থ বর্ষ বিএসসি ইন স্পীট এড ল্যাক্যুনেজ থেরাপি কর্ষণ্ডের ছাত্রী সাহিবীমা মুনতাহা তার রিসার্চ স্কোয়াড কার্ষণ্ডের জন্য আপনার ০৪.১১.২০১৪ ইং তারিখ থেকে ৩০.১১.২০১৪ ইং তারিখ পর্যন্ত আপনার প্রতিষ্ঠানে সফর করতে আহ্বান করছে।

তাই তাকে আপনার প্রতিষ্ঠান সফরে সার্বিক সহযোগীতা প্রদানের জন্য অনুমোদ করছি।

ধন্যবাদক্ষেত্রে

মো. জাহানীর আলম
বিভাগীয় প্রধান
স্পীট এড ল্যাক্যুনেজ থেরাপি বিভাগ
বিএইচপিআই।

নির্ধারিত

১১.১১.২০১৪
প্রতি

অধ্যক্ষ
সাহিক
মহাশালী, ঢাকা।

বিষয় ৪ প্রিন্টচার প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর প্রস্তুত প্রস্তুত।

জনাব,
আপনার সদর অবভাবিত জন্য জানাচ্ছে যে, পশ্চিমাঞ্চলের পুনরুদ্ধার কেন্দ্র-সিআরপি’র শিক্ষা প্রতিষ্ঠান বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই) ঢাকা বিশ্ববিদ্যালয় অনুমোদিত বিএসসি ইন স্পিট এন্ড ল্যাভ্যুরেজ থেরাপি কোর্স পরিচালনা করে আছে যা কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসাবে বিভিন্ন বিষয়ের উপর রিসার্চ ও কোর্স ওয়ার্ক করা বাধ্যতামূলক।

বিএইচপিআই’র ৪র্থ বর্ষ বিএসসি ইন স্পিট এন্ড ল্যাভ্যুরেজ থেরাপি কোর্সের ছাত্রী সাথিয়া মুনিতাহা তার রিসার্চ সমাপ্ত করেন জন্য আপনি ০৪.১১.২০১৪ ইং তারিখ থেকে ৩০.১১.২০১৪ তারিখ পর্যন্ত আপনার প্রতিষ্ঠানে সফর করতে আসছেন।

তাই তাকে আপনার প্রতিষ্ঠান সফরে সার্বিক সহযোগিতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদকেন্দ্রীয় আথার্ম
বিভাগীয় প্রধান
স্পিট এন্ড ল্যাভ্যুরেজ থেরাপি বিভাগ
বিএইচপিআই।
AnneXure 7

বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)
CRP-Chapain, Savar, Dhaka, Tel: 7745464-5, 7741464, Fax: 7745069
BHPI-Mirpur Campus, Plot-A/5, Block-A, Section-14, Mirpur, Dhaka-1216. Tel: 8803718,8053662-3, Fax: 8053661

তারিখ ০২.১১.২০১৪

প্রতি
অধ্যক্ষ
হাই কেয়ার কুল
ধানমভি, ঢাকা।

বিষয়: ডিগ্রিচার্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর প্রস্তাব

জনাব,
আপনার সদর অপরাধির জন্য জানাচ্ছি যে, পক্ষাধিকার পুনর্নির্দেশ কেন্দ্র-সিমারিপি’র শিক্ষা প্রতিষ্ঠান বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই) তাঁর কর্মবিধায় অনুমোদিত বিএসসি ইন স্পিচ এন্ড ল্যাগুয়েজ থেরাপি কোর্স পরিচালনা করে আসছে।

উক্ত কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসেবে বিজ্ঞাপন বিষয়ের উপর ডিগ্রিচার্ট ও কোর্সওয়ার্ক করা বাধ্যতামূলক।

বিএইচপিআই’র ৪ই বর্ষ বিএসসি ইন স্পিচ এন্ড ল্যাগুয়েজ থেরাপি কোর্সের ছাত্রী সাহায্য মুতাবাহ তাদের ডিগ্রিচার্ট সম্প্রতি কাজের জন্য আপামী ০৪.১১.২০১৪ ইং তারিখ থেকে ৩০.১১.২০১৪ তারিখ পর্যন্ত আপনার প্রতিষ্ঠানে সফর করতে আহ্বান করছি।

তাই তাকে আপনার প্রতিষ্ঠান সফরে সার্থক সহযোগীতা প্রদানের জন্য আনুরোধ করছি।

ধনাদ্বাদেতে
মো. আহ্মেদীর আলম
বিভাগীয় প্রধান
স্পিচ এন্ড ল্যাগুয়েজ থেরাপি বিভাগ
বিএইচপিআই।
 Annexure 8
Annexure 9

Checklist

Name of the school: Contact Person:

Address: Mobile Number:

1. When the school was established?

2. How many professionals are at your school?

<table>
<thead>
<tr>
<th></th>
<th>Social Worker</th>
<th>SLT</th>
<th>Audiologist</th>
<th>Psychologist</th>
<th>Others (Specify....)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Worker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. What is the qualification of different professionals?

<table>
<thead>
<tr>
<th></th>
<th>Social Worker</th>
<th>SLT</th>
<th>Audiologist</th>
<th>Psychologist</th>
<th>Others (Specify....)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Worker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. What teaching methods are you following in your classroom?

<table>
<thead>
<tr>
<th></th>
<th>demonstration</th>
<th>Role play</th>
<th>Story telling</th>
<th>Mixed</th>
<th>Others (Specify....)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. What types of teaching aids does your school use in the classroom?

<table>
<thead>
<tr>
<th>Board &amp; marker</th>
<th>Poster &amp; picture card</th>
<th>Multimedia</th>
<th>Over head projector</th>
<th>Mixed</th>
<th>Others (Specify....)</th>
</tr>
</thead>
</table>

6. What is the teacher student ratio in every classroom?

<table>
<thead>
<tr>
<th>1:1</th>
<th>1:2</th>
<th>1:3</th>
<th>1:4</th>
<th>Others (specify...)</th>
</tr>
</thead>
</table>

7. What intervention method do you follow in your school?

<table>
<thead>
<tr>
<th>One to one therapy</th>
<th>Group therapy</th>
<th>Both</th>
<th>Others (Specify....)</th>
</tr>
</thead>
</table>

8. Does your school teaching/ encourage the use of sign language?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

9. Does your school teaching/ encourage the use of lip reading?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>
10. Does your school have any audiology test room?

| Yes | No |

11. Does your school have sound proofed room in every class room?

| Yes | No |

12. Does your school provide hearing aid?

| Yes | No |

13. Does your school follow any special curriculum?

| Yes | No |

14. Do you think in your school have sufficient no. of educational resources?

| Yes | No |

If yes, then would you please tell me name of those........

15. Do you think in your school have adequate therapy materials?

| Yes | No |
16. Does your school have any outreach educational program for the students?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If yes, then would you please tell me name of those……..

17. What types of learning facilities does your school have?

<table>
<thead>
<tr>
<th>Art</th>
<th>Dance</th>
<th>Song</th>
<th>Play events</th>
<th>Mixed</th>
<th>Others (Specify...)</th>
</tr>
</thead>
</table>

Participant’s Signature & Date: .................................................

Sign & Date of investigator: .................................................
Annexure 10