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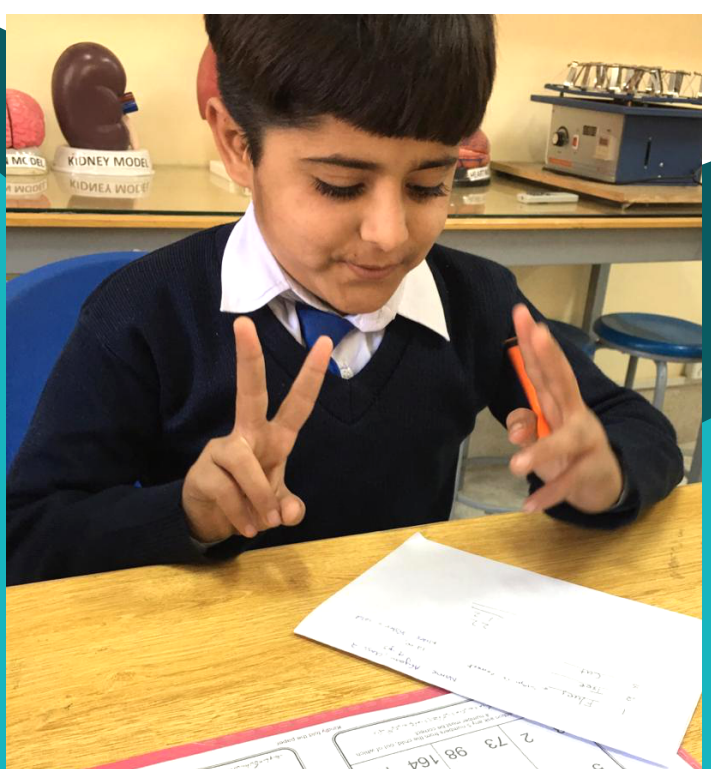
INCLUSIVE ASSESSMENTS THROUGH PARTNERSHIPS

ASER Tools Adaptation for the Deaf and Visually Impaired - Mapping SDG 4 for Inclusion and Equity

REPORT



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2019

Table of Contents

List of Tables

List of Figures

Introduction

In recent years, there has been an increased global focus on disability issues as there is a growing realization of the need for inclusive education to address inequalities in education. The Sustainable Development Goals 2030 have a very strong and explicit commitment to disability and inclusive education, propagating a socially just and rights-based approach where development efforts include all people, even those at the very margins of society. SDG 4 on education is embedded in the principle of 'inclusion'. This focus is highly pertinent, especially in contexts, such as Pakistan, where factors such as the high prevalence of poverty, significant gender differentiation and discrimination, and negative societal perceptions towards disability all intersect to create multiple deep-rooted disadvantages. In Pakistan, there is very little knowledge regarding prevalence rates and types of disabilities among children, and even more evident is the complete lack of information on the learning outcomes of children with disabilities. Hence, the area of disability and special education has remained fragmented. The Japan International Cooperation Agency (JICA 2002), in profiling disability in Pakistan, noted that 'persons with disabilities are mostly unseen, unheard and uncounted persons…They are the most marginalized group.' Over sixteen years later, there is no reason to believe that this situation has changed. A more recent report by the Economist Intelligence Unit (EIU 2014) observed that 'Persons with disabilities form Pakistan's largest overlooked minority'.

As far as the disability prevalence rates are concerned, various estimates have been reported for it. Starting from the Census of Pakistan in 1998, 2.54% of the total population was categorized as persons with disabilities. This figure has reduced to 0.48% as per the 2017 census results. However, concerns have been raised over this figure which has been claimed to be underreporting the number of people with disabilities. More recently, Teaching Effectively All Children (TEACh 2018) survey, which was conducted in three districts of Punjab (Hafizabad, Sargodha, and Kasur) and used Child Functioning Module of Washington Group on Disability Statistics, estimates the disability prevalence to be around 11.2% for children in the age group of 8-12 years old. Similarly, ASER 2018 survey, which was conducted in Punjab, Khyber Pakhtunkhwa, Islamabad, and KP-newly merged districts using Washington Group on Disability Statistics' Short Set of Questions, estimated the disability prevalence rate to be 3.56% among the children of 3 to 16 years of age. Thus in this context, where this area is largely being ignored and little knowledge is available about the prevalence of children with disabilities and learning outcomes of these children, there was a need to develop the learning assessment tools for children with disabilities and to measure the disability prevalence using standardized tools.

Project's Overview

Idara-e-Taleem-o-Agahi (ITA), with a vision to promote education as a comprehensive process for human and social transformation, is actively pursuing universal access, learning and standard setting in education as a holistic lifelong process embedded in innovative and inclusive education systems for all children, youth and adults, without discrimination due to gender, class, age, ability, religion, colour and ethnicity through research, timely resource mobilization and influencing public policy. In continuation of its work, ITA launched a first-of-its-kind project: "***Inclusive Assessments through Partnerships -ASER Tools Adaptation for the Deaf and Visually Impaired - Mapping SDG 4 for inclusion and equity"***. This project was implemented in partnership with UKaid-DFID, Family Educational Services Foundation (FESF), Sightsavers, University of Cambridge, IDEAS Pakistan and Department of Empowerment of Persons with Disabilities (formerly known as the Special Education Department), Government of Sindh.

In line with the Sustainable Development Goal # 4 and Article 25A of the Constitution of Pakistan, the project aimed to:

i. Cover the research gaps and cater to the lack of credible data sources regarding the learning assessment of the children with disabilities and disability prevalence in Pakistan.
ii. Adapt ASER Learning Assessment Tools (Urdu, English, Arithmetic and General Knowledge) into disability friendly formats for visually impaired (Braille) and Deaf (PSL). The adapted tools were then used to assess the learning outcomes of Deaf and visually impaired children.
iii. Expand the ASER Disability Questionnaire to include the Washington Group on Disability Statistics' "Child Functioning Module" to estimate the disability prevalence.
iv. Build the capacity of all stakeholders through workshops and seminars
v. Promote informed policymaking through high-level policy dialogues, policy briefs, and conference papers.

Disability Prevalence

Washington Group on Disability Statistics has devised the Child Functioning Module (CFM) in conjunction with UNICEF. Although this module covers children between 2 to 17 years of age group (through two questionnaires: 2-4 years old and 5-17 years old), we have used the 5-17 years questionnaire to survey children in the 5 to 16 years of age, for the purpose of standardization with the ASER survey. The CFM assesses functional difficulties in 13 different domains including hearing, vision, communication/comprehension, learning, mobility, and emotions with the purpose of identifying the subpopulation of children who are at greater risk than other children of the same age or who are experiencing limited participation in an unaccommodating environment. To better reflect the degree of functional difficulty, each area is assessed against a rating scale.

This Child Functioning Module is designed to be asked from parents/primary caregivers of a child and is intended to be used in the household level surveys. The effectiveness of the questionnaire in gauging the disability lies in the fact that it doesn't include any term, such as special, disabled, handicapped and retarded, etc., which would make respondents feel uncomfortable. On the other hand, the questionnaires which were previously used in Pakistan for measuring the disability prevalence, for instance, National Population Census 2017, used terms such as “disabled”. This meant that disability incidence might have been underreported due to the stigma which is attached to disabilities in society. Moreover, asking such questions with binary responses (Disabled and Not-Disabled) do not provide information on the types and/or severity of the disability. Therefore, the results found through such activities are limited in their usefulness.

Understanding the need for dependable data sources, ASER Pakistan's disability questionnaire was expanded to include Washington Group on Disability Statistics' Child Functioning Module which was adapted and translated into the Urdu language. To facilitate and standardize the training of enumerators, a training manual was also developed in coordination with the University of Cambridge and IDEAS Pakistan. It covered not only the CFM questionnaire but also the dos and don'ts of the overall survey.

The Child Functioning Module was then used for the household level survey in five districts of Pakistan namely Lahore, Multan, Bahawalpur, Karachi, and Hyderabad. A sample size of 600 Households was selected from each district using the time tested methodology of ASER i.e. 20 households from each of the randomly selected 30 villages in the district. Therefore, the total

sample size for the household survey was 3000 households. Districts for the survey were selected based on the following rationale/criteria:

i. The spread of districts across provinces
ii. The spread of special education institutions among districts within a province

After the selection of the districts, a two-day rigorous training was conducted in each of the selected districts during the first week of December 2018. On average, 45 enumerators participated in each of these trainings, thus a total of over 200 enumerators were trained on how to use the Child Functioning Module to measure the disability prevalence among children.

Following the district level trainings, the household survey was initiated. The questionnaire for this survey was a combination of a household information sheet, which collects basic information about the household characteristics and the related demographics of its members, and the CFM.

Findings from the Child Functioning Module

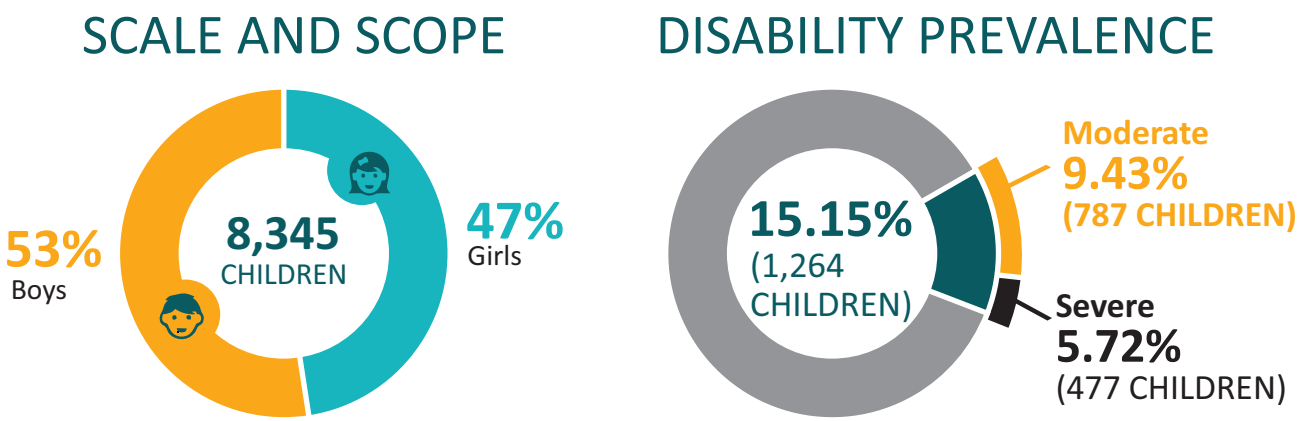

Figure 1: Disability Prevalence - 11 Functionings

From 3000 households, our sample reached out to 8345 children. Out of these, 3922 were girls while 4423 were boys. The results indicate that 15.15% of the total children (1264 children) were identified as having a moderate (9.43%) or a severe (5.72%) disability in at least one of the 11 reported functionings (excluding estimates for anxiety and depression). This incidence is increased to 22.2 % (1854 children) if we include the estimates for a child being sad (depressed) or worried (anxious).

Table 1 shows the percentage of children with difficulties in each of the thirteen functionings which were assessed under CFM. As reported, we find that a relatively greater number of children in the 5 to 16 years of age group are suffering from psycho-social and behavioral difficulties.

DISABILITY PREVALENCE (BY TYPE)

Disability Type	No Difficulty (%)	Mild Difficulty (%)	Moderate Difficulty (%)	Severe Difficulty (%)
Seeing	96.55	3.01	0.42	0.02
Hearing	98.43	1.31	0.18	0.08
Walking	94.90	3.93	1.01	0.16
Self-care	92.02	6.61	1.25	0.12
Communication	93.69	5.32	0.77	0.22
Learning	91.37	7.36	1.14	0.13
Remembering	90.91	7.23	1.61	0.25
Concentrating/Focus	88.98	6.35	3.24	1.43
Routine (Accepting Change)	83.28	10.78	4.27	1.67
Controlling Behavior	82.04	11.32	4.64	2.00
Making Friends	88.07	5.55	3.40	2.98
Worry (Anxiety)	83.45	8.50	8.05	
Sad (Depression)	84.93	8.62	6.45	

Table 1: Disability Prevalence (By Type)

Disaggregating the prevalence rate for moderate and severe disabilities by province, it can be seen that 18.49% and 9.23% of children had at least one moderate or severe disability in Punjab and Sindh, respectively. This shows that children in Punjab are at a greater risk of suffering from a disability when compared with the children in Sindh. Here, it should be noted that all provincial estimates are based on the survey of the 3 districts in Punjab and 2 districts in Sindh and hence cannot be generalized to the whole province. Despite this, the results can be used as an indicator for the disability prevalence rate in the respective province.

*DISABILITY PREVALENCE (BY PROVINCE)

:

	No Difficulty	Mild	Moderate	Severe
Punjab	60.43%	21.08%	10.52%	7.97%
Sindh	74.35%	16.42%	7.50%	1.73%

Table 2: Disability Prevalence (By Province)-11 Functioinings

Moreover, a greater number of boys are suffering from a moderate and severe level of disabilities in comparison to girls as shown in Table 3 below. The difference in the incidence rates becomes more pronounced, especially for severe level disabilities, when we compare the boys from Punjab with the boys from Sindh and girls from Punjab with the girls from Sindh.

	Overall		Punjab		Sindh	
	Boys	Girls	Boys	Girls	Boys	Girls
No Difficulty	63.21%	68%	58.55%	62.85%	71.87%	76.62%
Mild	20.57%	18.13%	22.30%	19.58%	17.36%	15.7%
Moderate	10.32%	8.46%	11.1%	9.87%	8.88%	6.1%
Severe	5.90%	5.41%	8.05%	7.70%	1.89%	1.58%

Table 3: Disability Prevalence (By Gender) - 11 Functionings

In terms of disability prevalence at the district level, Karachi has the least number of children with moderate/severe disabilities (3.16%) while most cases of moderate/severe disabilities have been reported in Multan (23.99%). If we incorporate the estimates for mild disabilities as well, then Hyderabad has the highest disability incidence (45.59%) followed by Bahawalpur (43.25%), Multan (39.04%), Lahore (35.4%) and Karachi (9.72%). Table 4 captures the disability prevalence rates at the district level.

Although overall estimates for moderate/severe disabilities by gender in Table 3 show that more boys are suffering from at least one moderate/severe level disability when compared with girls, this trend is reversed at the district level. At the district level, a higher percentage of girls relative to boys was found to be suffering from a severe level of disability in Hyderabad (2.97% vs. 2.52%), Multan (9.29% vs. 8.92%) and Bahawalpur (6.95% vs. 5.93%).

	Karachi	Hyderabad	Lahore	Multan	Bahawalpur
No Difficulty	90.28%	54.41%	64.6%	60.96%	56.75%
Mild	6.56%	28.77%	22.17%	15.05%	25.83%
Moderate	2.21%	14.13%	4.63%	14.83%	11.03%
Severe	0.95%	2.69%	8.60%	9.16%	6.39%

Table 4 : Disability Prevalence (By District)-11 Functionings

	Karachi		Hyderabad		Lahore		Multan		Bahawalpur	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
No Difficulty	91.40%	89.29%	51.67%	56.99%	62.61%	67.82%	59.71%	62.62%	54.24%	59.6%
Mild	5.65%	7.44%	29.48%	28.50%	22.92%	21.35%	15.15%	14.5%	28.06%	23.24%
Moderate	1.67%	2.59%	16.33%	11.54%	4.75%	4.24%	16.22%	13.59%	11.77%	10.21%
Severe	1.28%	0.68%	2.52%	2.97%	9.72%	6.59%	8.92%	9.29%	5.93%	6.95%

Table 5: Disability Prevalence (By District and Gender)-11 Functionings

As mentioned earlier, in addition to asking questions pertaining to disabilities, the survey also collected information on a child's education. It was reported that 77.29% of the total 1264 children with moderate/severe difficulties in 11 functionings (977 children) were attending a school. Out of these, only 183 children were found to be attending a government/private/NGO-run special education school while others were enrolled in regular schools.

A higher percentage of boys was found to be using the option of paid tuition at all levels of disabilities with the exception of the mild level where a slightly higher percentage of girls was paying for tuition (26.88% for girls vs. 26.83% for boys).

	Overall		Punjab		Sindh	
	Boys	Girls	Boys	Girls	Boys	Girls
No Difficulty	25.19%	24.59%	24.64%	22%	26.25%	29.43%
Mild	26.83%	26.88%	23.67%	24.04%	34.22%	32.29%
Moderate	28.68%	24.71%	25.57%	21.93%	35.59%	31.58%
Severe	29.95%	19.87%	29.57%	19.26%	33.33%	25%

Table 6 : Paid Tuition (By Gender)-11 Functionings

Furthermore, 85.22% of the households (88.29% in Punjab and 79.85% in Sindh) were reported as having access to mass media where access to mass media was defined as watching television/listening radio/reading newspaper at least once a week.

	Overall		Punjab		Sindh	
	Boys	Girls	Boys	Girls	Boys	Girls
No Difficulty	84%	85.19%	90.27%	92.22%	74.53%	75.66%
Mild	92.71%	90.44%	91.89%	88.24%	94.62%	94.93%
Moderate	86.33%	83.65%	82.41%	82.83%	95.45%	85.88%
Severe	73.09%	65.69%	71.62%	62.09%	85.19%	95.45%
Overall	85.22%		88.29%		79.85%	

Table 7 : Households Access to Mass Media-11 Functionings

ASER Learning Assessment Tools

ASER learning assessment tools are designed to assess basic competencies of children, in the age group of 5-16 years, as defined in the national curriculum. The difficulty level for assessment tools is that of class 2 for reading (the language of pedagogy) and English competencies, while arithmetic abilities are assessed according to the class 3 curriculum.

Learning assessment tools are as follows

i. Urdu
ii. English Assessment Tools
iii. Arithmetic Assessment Tools

In addition to these learning assessment tools, a section on general knowledge is also a part of the assessment process. Each of the ASER assessment tools comprises of 2 samples, i.e. sample 1 and sample 2 for Urdu, Arithmetic, English and General Knowledge. This is to avoid the situation where the child answers from memory and not as per skill.

Adaptation of ASER Learning Assessment Tools

The ASER tools 2018 were adapted into Braille and Pakistan Sign Language (PSL) by Sightsavers and FESF, respectively. Tools adaptation process for both Braille and PSL is as follows:

Braille

a) Meeting with teachers & Braille/Audio Specialists for adaptation of ASER Learning Assessment Tools:

A number of meetings of Sightsavers and SEDA teams were held with the teachers of the special education system and experts of braille and audio to discuss the adaptation of ASER Tools into braille & audio for visually impaired children. During these meetings, the following points were discussed:

i) Scope and nature of ASER Tools
ii) The practicality of tools in braille and audio
iii) Teaching/ learning methods of special education system used for visually impaired students

iv) In-depth review of each tool and its content for conversion into Braille and audio

v) Identification of changes which were required for adaptation of tools. Following are some of the examples:

- General Knowledge Tool – Conversion of pictures in stories since visually impaired children cannot see pictures
- English Tools – Recognition of letters in audio by asking letters before/ after of required letters
- Urdu Tools – Recognition of letters in audio by asking children letters before/ after the required letters
- Arithmetic Tools – Recognition of digits in audio by asking children digits after/before the required digits

b) Preparation of tools for Braille and Audio:

Drafts for Braille and script for audio were prepared for printing and recording after making necessary changes.

c) Printing of Braille Tools and Audio Recording:

Drafts prepared for braille were printed and script of audio was recorded.

d) Proofreading/ listening:

Proofreading of braille tools and proof listening of audio tools were undertaken by two braille and two audio experts. Few changes were identified by the experts which were incorporated into braille and audio tools.

e) Pre-Testing:

After making proposed changes by experts, braille and audio tools were pre-tested in two schools for visually impaired children in Rawalpindi District. Schools were identified by the Sightsavers and SEDA and included Qandeel School for Blind, Kohati Bazar, Rawalpindi and Government Special Education Center for Blind Taxila, Rawalpindi. Three students were randomly selected from each school (KG2 to 5th grade) and were assessed using the adapted tools. Teachers from these schools also reviewed the tools and were found to be content with the quality of the adapted tools.

f) Finalization of braille/ audio ASER Tools:

After pre-testing of braille and audio tools in two schools of Rawalpindi district, necessary changes were made in the tools which were then used for the project.

Pakistan Sign Language

Consecutive meetings were held to develop solutions and strategies for adapting the ASER tools into PSL. It was decided that a digitized version would be required in PSL with an English and Urdu version. Following this, there was a need to create a work plan for an effective flow for both the scripting and filming process. The steps used to plan for the adaption of the ASER Test in PSL are as follows:

i. Establish a timeframe for scripting in PSL: English and Urdu
ii. Use the adapted script for the filming process
iii. Decide on key elements to be included in the scripts (i.e. vocabulary usage)
iv. Factor in which words to be signed or not to be signed so as to not give away the clues of the tests
v. Types of tests to be interpreted, voiced-over, and aligned for PSL
vi. Preparation of interpreting content for all 4 tools of ASER test
vii. Voice overs in English and Urdu
viii. Ensure all 3 language components are in sync i.e., signing, voicing and subtitling.
ix. Quality control: Review and correction of content

a) What steps were taken for the preparation of PSL adapted ASER tools video?

The goal was to follow the instructions, adapted and simplified into PSL so that it could be understood by Teachers and Deaf students alike. One of the main components was the signing interpretation of the printed word (script) across all four types of tests. The alignment between the signing and the scripting was crucial during this phase. Any revision or modifications were adjusted prior to the shooting day.

b) What steps were taken during the filming process and what are the key elements you have to look over?

The steps taken during the filming process are given as follows:

i) Coordination between the script manager and signer;
ii) Ensure that the alignment matches with the ASER Tests and PSL keywords;
iii) Convey the proper meaning that would make sense for both English and Urdu versions;
iv) Syncing audio input for all versions;
v) Quality control for all content;
vi) Piloting of the script with students and teachers at Deaf Reach Karachi campus.

After the piloting of the adapted tools, the review and correction process was carried out:

i. Content reviewed by quality control for all three sections: English, Urdu, and PSL
ii. Signing content, written English/Urdu, spoken English/Urdu, and syncing of all elements were also evaluated.
iii. Errors and suggestions were submitted to the editor
iv. Repeating of voice-overs or recording was decided by the editing team and deemed as necessary
v. Some necessary edits were adjusted (i.e. cutting the "Cook" segment out of the video)
vi. Pilots were conducted internally with 4 students and teachers at every stage.
vii. Film reviewed and approved after incorporation of comments
viii. Final review

Findings from the Adapted ASER Tools Survey

After the ASER tools were adapted into Braille and PSL, these tools were used to assess the learning outcomes of a random sample of 10-15 students from 20 government, private and NGO-run special education schools in Punjab and Sindh.

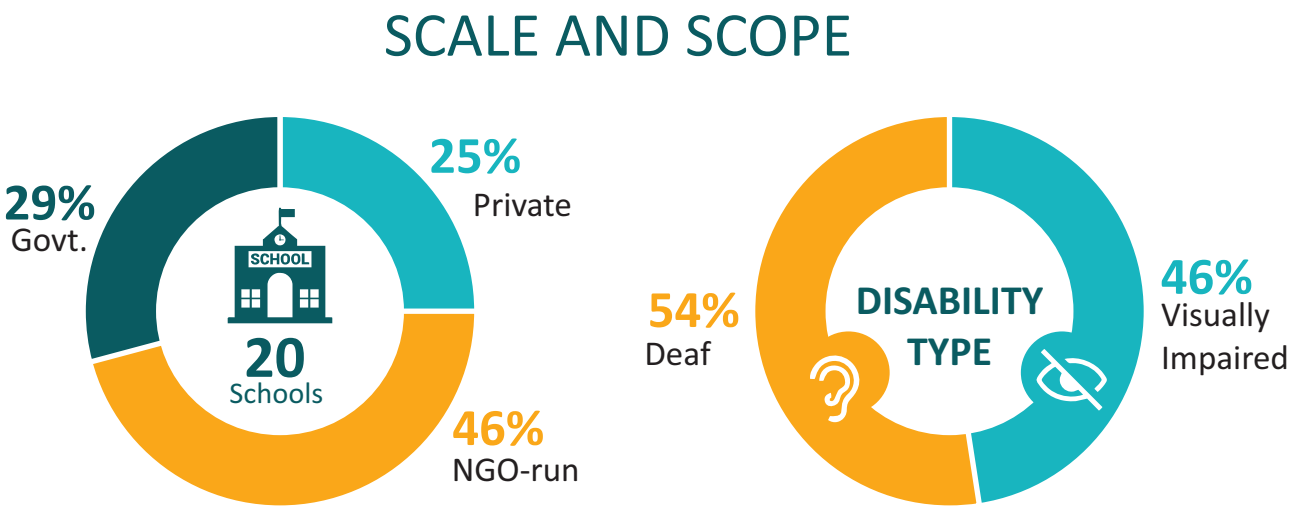

Figure 2: Scale and Scope of the Adapted Tools Survey

A sample of approximately 200 Deaf and Visually Impaired students was assessed from the selected 20 schools. Out of these, 54% were Deaf and 46% were visually impaired. Learning outcomes of Deaf students (grade 1 to 5), who were assessed using the PSL-adapted ASER Tools, at the highest competency level are given in Table 8. These results indicate that Deaf students performed rather poorly in the assessment as only a limited number of children were able to correctly attempt the questions at the highest competency level i.e. 6.86% (English Sentence), 0% (Urdu Story) and 3.06% (Arithmetic 2-Digit Division). Girls have outperformed boys in English Sentence (17.65% girls vs. 1.47% boys) and Urdu Words (14.71% Girls vs. 7.35% Boys). However, no girl was able to attempt the arithmetic 2-digit division while 4.55% of Boys were able to successfully answer the 2 digit division questions. Provincial estimates show that no Deaf student in Punjab was able to attain the highest competency level in any of the three subjects.

	Overall	Gender		Province	
		Boys	Girls	Punjab	Sindh
English Sentence	6.86%	1.47%	17.65%	- (15.15% At Words Level)	10.14%
Urdu Story	- (9.80% at Words Level)	- (7.35% at Words Level)	- (14.71% at Words Level)	- (15.15% at Words Level)	- (7.25% at Words Level)
Arithmetic 2 - Digit Division	3.06%	4.55%	- (28.13% at Subtraction Level)	- (29.41 % at Subtraction Level)	4.69%

Table 8: Learning Outcomes (Highest Competencies)-PSL

Disaggregating these learning outcomes over province and gender, we find similar trends for Punjab and Sindh i.e. girls are performing better than boys in English and Urdu while boys have performed better in the Arithmetic section.

	Sindh		Punjab	
	Boys	Girls	Boys	Girls
English Sentence	2.17%	26.09%	- (9.09% at Words Level)	- (27.3% at Words Level)
Urdu Story	- (6.38% at Words Level)	- (9.09% at Words Level)	- (9.52% at Words Level)	- (25% at Words Level)
Arithmetic 2 -Digit Division	6.82%	- (30 % at Subtraction Level)	- (31.82% at Subtraction Level)	- (25% at Subtraction Level)

Table 9: Learning Outcomes by Province and Gender (Highest Competencies)-PSL

Learning outcomes of visually impaired students, who were assessed using the Braille-adapted ASER Tools, at the highest competency level are given in Table 10. The assessed visually impaired students were primarily from grades 1 to 5. However, where the enrollment in these grades was low, students from grades beyond grade 5 were also assessed. Results show that the visually impaired students were able to perform remarkably well in all three subjects with 51.76% (English Sentence), 53.57% (Urdu Story) and 39.33% (Arithmetic 2-Digit Division) attempting the questions at the highest competency level correctly.

	Overall	Gender		Province	
		Boys	Girls	Punjab	Sindh
English Sentence	51.76%	48.98%	55.56%	62.69%	11.11%
Urdu Story	53.57%	52.08%	55.56%	62.12%	22.22%
Arithmetic 2-Digit Division	39.33%	44%	33.33%	43.28%	27.27%

Table 10: Learning Outcomes (Highest Competencies)-Braille

In terms of gender, girls performed better than boys in English and Urdu while boys did better in Arithmetic. This trend is similar to what we have observed for Deaf students. Furthermore, the assessment highlights the provincial variations in the learning outcomes of Visually Impaired students. Visually impaired students from Punjab performed significantly better than their peers from Sindh in all three subjects: English Sentence (62.69% vs. 11.11%), Urdu Story (62.12% vs. 22.22%) and Arithmetic 2-Digit Division (43.28% vs. 27.27%).

	Sindh		Punjab	
	Boys	Girls	Boys	Girls
English Sentence	15.38%	- (20% At Words Level)	61.11%	64.52%
Urdu Story	30.77%	- (20% at Words Level)	60%	64.52%
Arithmetic 2-Digit Division	42.86%	- (37.50% at Subtraction Level)	44.4%	41.94%

Table 11: Learning Outcomes by Province and Gender (Highest Competencies)-Braille

The trend for gender remains similar to the overall trend, but it should be noted that no girl from Sindh had the highest competency level.

Head teachers of the 20 schools were also asked about the facilities which were available in their respective schools. Table 12, 13 and 14 present the information collected through this activity.

Overall	Yes	No
Usable water	94%	6%
Toilet	95%	5%
Boundary Wall	100%	0%
Playground	69%	31%
Electricity	96%	4%
Science Lab	18%	82%
Computer Lab	79%	21%

Table 12: School Facilities-Overall

Majority of the 20 schools had usable drinking water, a toilet facility, boundary wall, playground, electricity connection, and a computer lab. However, only 18% of the schools were equipped with a science laboratory. 65% of the special education schools for Deaf were teaching students using sign language, 68% had assistive technologies e.g. visual aid and 75% had facilitative learning environment for Deaf students e.g. quality lighting, etc.

For Deaf	Yes	No
Taught using Sign Language	65%	35%
Assistive Technologies	68%	32%
Facilitative Environment for Deaf	75%	25%

Table 13: Facilities-For Deaf Students

For visually impaired students, it was found that 92% of the schools had instructional material in Braille and/or Audio Formats, 33% had assistive technologies for visually impaired students e.g. audio aid and 93% schools were free of physical clutter.

For VI	Yes	No
Instructional Material in Braille and/or Audio Formats	92%	8%
Assistive Technologies	33%	67%
Free of Physical Clutter	93%	7%

Table 14: Facilities-For Visually Impaired Students

Conclusion

It is interesting to see that there exist major differences in the learning outcomes of students who were assessed using PSL when compared with those who were assessed using Braille. While there is a clear need to explore the potential causes behind these differences in a detailed manner, we observed that even though sampled schools for Deaf Children had claimed that their students were being taught in a sign language, a significant majority of these students was not familiar with the basic signs and hence could not perform well in the assessment. On the contrary, visually impaired students were relatively proficient in reading Braille and were able to answer more questions correctly.

Furthermore, the following points can be concluded from the results:

i. PSL and Braille Adapted ASER Learning Assessment Tools are effective in assessing the learning outcomes of Visually Impaired and Deaf students.
ii. A significant proportion of children have at least one moderate/severe difficulty (15.15% of the 8345 surveyed children, estimate reported for 11 functionings).
iii. Gender Characteristics: There are more boys than girls reported with disabilities; there are more boys enrolled (81% with moderate and 80% with severe disabilities) than girls (75% with moderate and 70% with severe disabilities).
iv. 77.29% of the total 1264 CWDs (977 children) were found to be enrolled in a school. Only a small percentage of children with a moderate/severe disability are attending a special education institute (183 children out of the total 977 school-going Children with Disabilities). Others have been reported to be attending a regular school.
v. Majority of schools for visually impaired students do not have assistive technologies. Despite this, visually impaired students are performing remarkably well.

INCLUSIVE ASSESSMENTS THROUGH PARTNERSHIPS

ASER Tools Adaptation for the Deaf and Visually Impaired - Mapping SDG 4 for Inclusion and Equity

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