KINGDOM OF ESWATINI

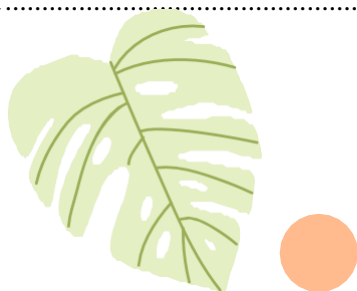**MINISTRY OF EDUCATION AND TRAINING**

GUIDELINES FOR DISABILITY INDICATOR INCLUSION IN EDUCATION MANAGEMENT INFORMATION SYSTEMS

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Acknowledgements

Education Management Information Systems

Acronyms

CRPD	Convention on the Rights of Persons with Disabilities
DMIS	Disability Information Management System
DPMO	The Deputy Prime Minister's Office
DSOs	Disability Service Organizations
DSW	Department of Social Welfare
MICT	Ministry of Information, Communications and Technology
MISs	Management Information Systems
MoET	Ministry of Education and Training
NDP	National Development Plan
NDPA	National Disability Plan of Action
NGOs	Non-Governmental Organizations
OPDs	Organizations of Persons with Disabilities
RSTP	The Royal Science and Technology Park
UNICEF	United Nations Children's Fund
WG-SS	Washington Group Short Set on Functioning

1. Overview, Purpose, Scope and Terminology

1.1 Overview

In February 2018 an exercise was conducted by the MoET and UNICEF Regional Office to identify priority areas for EMIS strengthening in the country. The EMIS System Assessment report found that in terms of the platform, high priority areas to address included: report generation to be automated, data cleaning and quality control checks, data archiving, database optimization, system maintenance and data usage with basic data visualization tools.

In March 2019, UNICEF contracted an independent EMIS consultant to provide technical assistance to the MoET to improve EMIS efficiency, build capacity for the EMIS staff and provide technical documentation of the existing EMIS platform. The aim was to strengthen EMIS at central and regional levels to improve evidence-based education planning and decision making for efficient resource allocation and service delivery.

Taking into account previous recommendations and cognizant of the challenges experienced in years prior, it was critical to ensure recommendations from previous assessments were taken into consideration while designing and configuring the DHIS2-EMIS system.

Therefore, a key feature of the upgraded system was that it is needs responsive/user-based. HISP Uganda developed a Requirement Specification Document which outlined a codified reference list of all user and system requirements to guide the process of development, testing and implementation of various stakeholders in the process of developing, testing and implementing DHIS2-EMIS for the MoET. Two modules were developed: 1) A learner/teacher tracker that responds to the PIN driven model requirement and 2) An aggregate Module for capturing aggregate data on annual education census form. When configuring the system the HISP team employed an agile methodology with close participation with MoET to ensure that all user requirements are incorporated in the design.

This has been of high importance since if the outputs are perceived as important and useful to key actors, they will contribute to the efforts needed to keep the system running and capture reliable data that make the outputs of the system of quality and reliability.

1.2 Purpose and Scope

The purpose of this Education Management Information System (EMIS) guidelines is to provide practical guidance on how to include disability indicators in EMIS. The EMIS will, on an incremental basis, build information about disability in the country that is produced in schools.

The main objective is to develop and implement disability screening data into the EMIS in line with the Disability Management Information System (DMIS) proposed for the Deputy Prime Minister's Office (DPMO). It will function as a central repository of amalgamated disability data for the education sector, to be used by government, non-governmental organizations (NGOs), Organizatons of Persons with Disabilities (OPDs) and United Nations agencies to streamline the delivery of disability-related services and interventions. Disability disaggregated data will also be produced as persons with disabilities are not a homogenous group.

Building on the work done in developing guiding documents for DMIS[1], the Ministry of Education and Training has developed its own guidelines in line with DMIS and Health Management Information System (HMIS) guidelines.

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[1] https://www.unicef.org/eswatini/reports/disability-dimension-eswatinis-national-management-information-system-2024

1.3 Terminology

Children with Disabilities: Refers to children up to the age of 18 who have *"long- term physical, mental, neuro- developmental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others"* as per the Convention on the Rights of Persons with Disabilities.

DHIS2 (also spelled DHIS 2, formerly District Health Information Software): a free and open-source software platform for the collection, reporting, analysis and dissemination of aggregate and individual-level data.

Disability Mainstreaming: Means a systematic integration of the priorities and special requirements of persons with disabilities across all sectors, and the inclusion of this information in the creation and implementation of legislation, policies, regulations, standards and strategies.

Disability Service Organizations (DSOs): Organizations that provide rehabilitation, counselling, training, employment support and others type of support to persons with disabilities.

Education Management Information System (EMIS): Eswatini's DHIS2-based digital education management information system to promote equitable access to quality education.

Inclusion: Means a universal human right to be embraced irrespective of race, gender, disability, or other differences.

Management Information System (MIS): A computer system that handles data from different business activities.

Organizations of Persons with Disabilities (OPDs): Means organizations that serve the needs and interests of persons with disabilities and that are owned and managed by persons with disabilities.

Persons/people with Disabilities: Persons with disabilities include those who have perceived and/or actual physical, psychosocial, intellectual, neurological and/or sensory impairments which, as a result of various attitudinal, communication, physical and information barriers, are hindered from participating fully and effectively in society on an equal basis with others.

Rights Holders: All human beings are inherently rights holders who should enjoy universal human rights that must be guaranteed. In this practice note, the term "rights holders" refers to persons with disabilities and their families.

Universal Access: This refers to the removal of cultural, physical, social and other barriers that prevent persons with disabilities from entering, using or benefiting from the various systems of society that are available to other citizens and residents.

Universal Design: The design of products, environments, programmes and services to be usable by all persons to the greatest extent possible without the need for adaptation or specialised design.

1.4 Users of the Guidelines

Policymakers, planners, statisticians, data producers and users, programme managers, service providers, researchers, advocates, donors, and other stakeholders involved in the EMIS Unit. The guideline is also relevant for other sectors and programmes that collect and use data on persons with disabilities.

2. Disability Policy Landscape in Eswatini

According to the 2017 Population and Housing Census, a total of 146 554 people in Eswatini had difficulty or limitation in performing certain functions at the time of the census.[2] This represents about 13 per cent of the population.

Relevant policy instruments include:

- International treaties already ratified by the Government of Eswatini, such as the United Nations Convention on the Right of Persons with Disabilities (CRPD)[3] and the United Nations Convention on the Rights of the Child.[4]

- Eswatini Constitution[5]- Section 30 of the Constitution specifically focuses on protecting and promoting the rights of persons with disabilities. It mandates the government to take appropriate measures to ensure their dignity, welfare, and empowerment.

- International Children with Disabilities Protection Act of 2022.[6]

- National Development Plan (NDP).[7]

- Persons with Disabilities Act of 2018 and its Regulations.

- National Disability Plan of Action (NDPA) 2024 – 2028[8] which was launched by the Deputy Prime Minister's Office in 2024.

- UNICEF Disability Inclusion Policy and Strategy 2022-2030.[9]

- Social Assistance Policy Draft.

- Social Development Policy.

3. Other Management Information Systems in Eswatini

As much as there is currently no DMIS in Eswatini, some disability indicators are included in the EMIS and the Ministry of Health, Management Information Systems (MISs).

UNICEF has also supported strengthening of several MISs, including:

- Client Management Information System (CMIS).

- Education MIS (EMIS);

- Funding to support the social workers' tablets and internet access for the Primero Child Protection MIS (CPMIS).

4. Requirements of the Persons with Disabilities Act

The Persons with Disabilities Act of 2018 requires the disability component in the MIS to do the following:

- To collect, analyse, and disseminate data and information on disability, using the internationally agreed methods and tools, such as the Washington Group Short Set on Functioning (WG-SS).

- To ensure the accessibility and usability of disability data and the information system for persons with disabilities.

- To ensure that persons with disabilities and their representative organizations are consulted with and participate in the design, implementation, monitoring, and evaluation of the data and the information system.

- To ensure the alignment and harmonisation of the data and the information system with national and international frameworks and standards.

- To ensure the quality, reliability, and security of the data and information on disability, by applying ethical and quality.

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[2] Government of the Kingdom of Swaziland, Central Statistics Office, Population and Housing Census 2017, Volume 6, 2017

[3] https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities

[4] https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child

[5] https://eswatinilii.org/akn/sz/act/2005/1/eng@2005-07-26

[6] https://www.congress.gov/bill/118th-congress/senate-bill/847/text

[7] Eswatini-national-development-plan-2023-2028

[8] ESWATINI NATIONAL DISABILITY PLAN OF ACTION 2024-2028

[9] UNICEF Disability Inclusion Policy and Strategy 2022-2030

5. EMIS Background

The Ministry of Education and Training collaborated with UNICEF, the University of Oslo and HISP groups to revamp basic education planning and management, in the aftermath of the COVID-19 pandemic, by leveraging features of the DHIS2 platform.

Much of the successes Eswatini has recorded in education are attributable to good data-backed planning and management supported by an effective Education Management Information System (EMIS). Since 2008, the Ministry of Education and Training (MoET) has implemented a centralized, access-based digital EMIS managed by the EMIS Unit within the ministry. Over the years, this system facilitated the generation of usable statistics such as the annual education census report that make education planning easier.

The digital EMIS system did, however, have some drawbacks, such as the absence of decentralized data entry and the lack of support for a number of indicators in the new MoET priority areas, including Early Childhood Care Development (ECCDE), Special Needs Education (SEN), Care and Support for Teaching and Learning (INQABA), sector response to HIV and AIDS nutrition, and the overall mandates of the ministry as directed in the National Education and Training Improvement Program (NETIP II).

In response, the MoET transitioned to a DHIS2-based EMIS with the support of UNICEF, University of Oslo (UiO) and regional HISP groups. The new decentralized EMIS utilizes a personal identification number (PIN) and demand response system to provide individual-level data through the DHIS2 Tracker application, making useful metrics accessible at all sub-sector levels of the educational system. It also supports interoperability with other government systems, facilitates essential reporting and provides critical data for planning.

The DHIS2 EMIS pilot in Eswatini started with an inception meeting among key stakeholders and partners led by the MoET. Information systems and education experts from the HISP Centre at the University of Oslo (UiO), UNICEF and HISP groups collaborated. The MoET staff established a framework for the project and outlined the desired system model for data collection and analysis. Key to the successful implementation of this pilot was massive stakeholder buy-in at all levels, a needs-based approach and continuous capacity building of the MoET teams by the technical experts for sustainability.

The EMIS has now improved on many aspects of educational planning and management since its launch in 2020. The PIN model was adopted for the system, coupled with the enhanced data tools that has leveraged the multi-level data collection ability of DHIS2 to promote decentralized data collection, validation, analysis and use.

6. Stakeholder Engagement

The aim of engaging disability stakeholders is to develop a coordinated approach for early identification of peoples with disabilities in various environments beyond schools. Individuals with disabilities, guardians, and OPDs/disability civil society organizations.

Government Institutions[9]

- Ministry of ICT (MICT)

- Ministry of Health (MOH)

- Other units with Ministry of Education and Training (MOET) (such as the Special Education Needs unit)

- Deputy Prime Minister's Office (DPMO)

- Ministry of Justice (MOJ)

- The Royal Science and Technology Park (RSTP)

- Other government ministries and related bodies

- United Nations development agencies

- Other bodies.

7. EMIS Disability Screening Indicators

Impairment	Level of Impairment			
	No Difficulty	Some Difficulty	A lot of Difficulty	Cannot Do At All
Vision				
Hearing				
Mobility				
Cognition (Remembering)				
Self-Care				
Communication				

The Ministry of Education and Training has been collecting Special Education Needs (SEN) data on impairments of learners. The data is collected by teachers, who have limited training on disability screening. The indicators can be disaggregated by sex, age group, level of classroom and other available variables in EMIS.

8. Disability Screening Indicator Integration into EMIS

Scoping Out

Phase 1: Landscape analysis of existing EMIS system's ability to collect and report disability information.

Phase 2: A coordination meeting with key stakeholders to establish a way forward in integrating disability indicators in EMIS.

Development of Guiding Documents

Phase 3: Draft guidelines for integrating disability indicators in EMIS.

Phase 4: Share guidelines with stakeholders for input before adoption and dissemination.

Implementing Disability Screening and Tracking

Phase 5: Using Washington Group Short Set on Functioning Tools, adapt EMIS to collect key disability screening variables.

Phase 6: Train Focal Teachers on disability screening and the updated EMIS Tools.
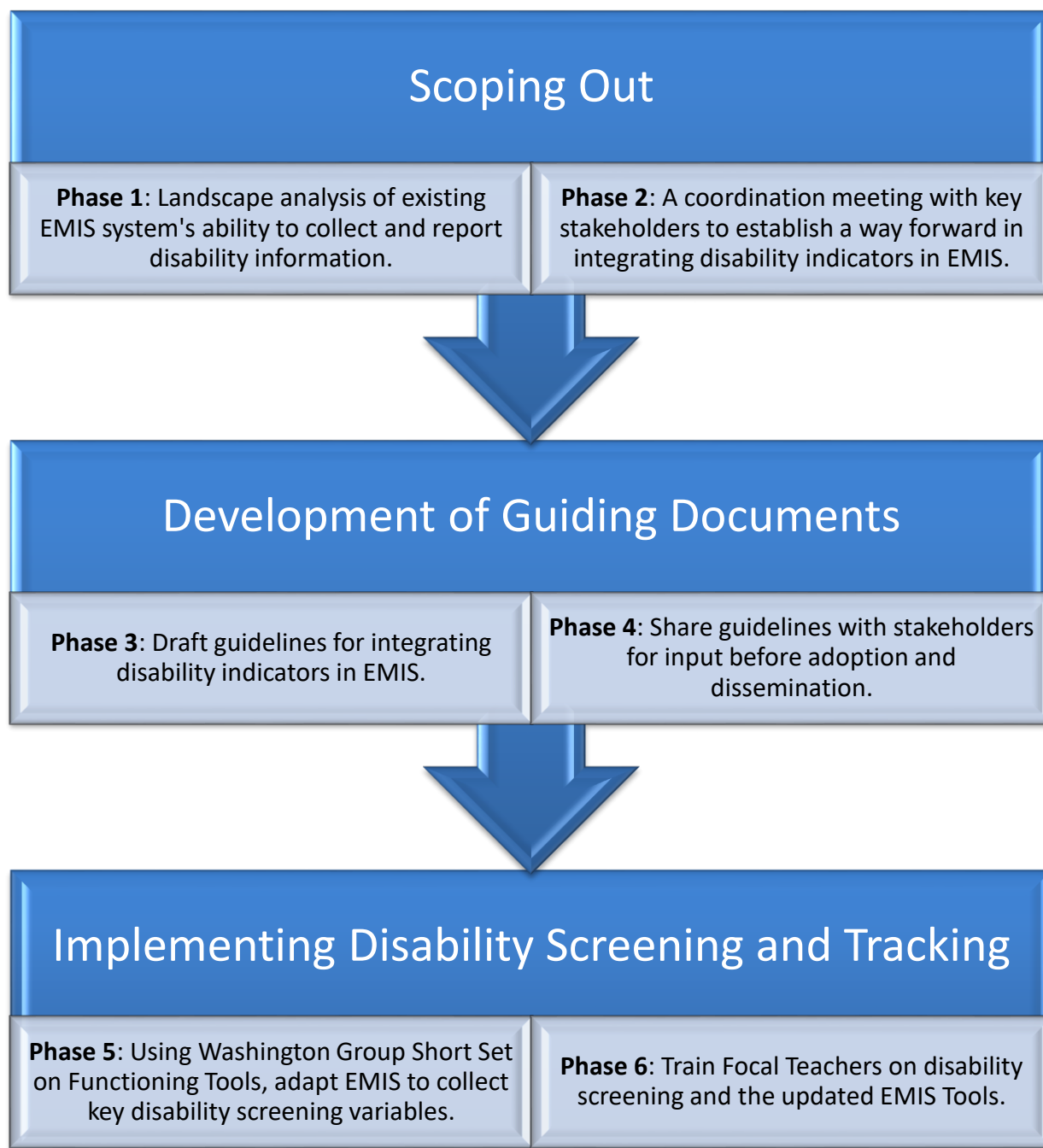
Figure 1: 8.   Job aids for integrating disability indicators and data into EMIS

8.1 Identifying and Measuring Disability

The identification and measurement of disability are not easy tasks due to the diversity and evolving nature of disability. In Eswatini, the Washington Group Short Set on Functioning is used to identify and measure disability.

8.2 Data Collection and Reporting

Data collection protocols should follow the United Nations Convention on the Rights of Persons with Disabilities (CRPD) and its Optional Protocol with **Article 31 on statistics and data collection.**

9. Step-by-Step Guide for Inclusion of a Disability Dimension in EMIS

9.1 A possible step-by-step guide to including indicators in EMIS

Step 1: Conduct a situational analysis of the current state of disability data and information in the country including EMIS. Assess the capability of existing data management systems in the EMIS.

Step 2: Develop a disability data and information guideline, which defines the vision, goals, objectives, indicators, and targets for the disability dimension, as well as the roles and responsibilities of different actors and stakeholders in the disability data and information system. Define a strategy for aligning the EMIS to existing management systems in other ministries.

Step 3: Establish a disability data and information coordination mechanism or embed such a role in inter-ministerial structures. Include government departments, civil society organizations, OPDs, and international agencies involved in the disability data and information system.

Step 4: Stakeholders to be capacitated in the collection and analysis of EMIS information.

Step 5: Ensure that disability data collected in Eswatini is age specific, and strengthen screening for adults accessing health services.

Step 6: Disseminate and use disability data and information in planning, decision-making, monitoring and evaluation processes.

Step 7: Review the examples and good practices of the disability dimension, learn from the successful and innovative cases and experiences of including the disability dimension in EMIS, and how these successes can be replicated and scaled up in other sectors and levels.

Step 8: Review the challenges and recommendations of the disability dimension and recognise the common and specific barriers and difficulties that hinder the inclusion of the disability dimension in EMIS, and how they can be addressed and overcome by providing practical and feasible solutions and suggestions.

9.2 Data Collection and Reporting

The WG-SS questions are already in use as they are internationally standardised questions covering individual functioning intended to provide a quick and low-cost way to collect data that allows disaggregation by disability status. The tools have been adapted into Eswatini context through consultative meetings with key stakeholders and will be incorporated into EMIS. Refer to Annexure A for more information on the different Washington Group sets of questions that were adapted.

9.3 Training of Data Collectors

The following steps can be taken to train data collectors collecting data for a disability-inclusive EMIS:

Step 1: Prepare the training materials and resources.

Step 2: Conduct the training sessions that cover the following topics: the purpose and objectives of the data collection; the definitions and concepts of disability and disability inclusion; the principles and standards of ethical and quality data collection; the methods and instruments of data collection and analysis such as the WG-SS. Include the practical skills and techniques of data collection, such as interviewing, observing, recording, and validating; and the challenges and solutions of data collection, such as dealing with stigma, bias and confidentiality *(see annexure b for training agenda).*

Step 3: Provide feedback and support to the data collectors.

9.4 Pilot and Testing

Pilot testing involves a group of real users to validate the effectiveness of frameworks being utilized under real-time operating conditions. Take due cognizance of the need to cover all the regions of Eswatini and different literacy levels. The steps which can be followed to conduct a pilot test include the following:

Step 1: Define the objectives and scope of the pilot test.

Step 2: Select and adapt the CMIS data collection tools, aligning this to the WG-SS.

Step 3: Prepare for the pilot test by training all teachers (both public and private schools); ensuring the accessibility and usability of the data collection tools for persons with disabilities; applying ethical and quality standards and safeguards; and obtaining the consent and participation of the data subjects.

Step 4: Deploy and test the pilot test.

Step 5: Evaluate the pilot test by: analysing and interpreting the data collected; comparing and triangulating the data from different sources and methods; identifying the achievements and challenges of the pilot test; and providing feedback and suggestions for improvement.

Step 6: Prepare for the full-scale data collection by reviewing and revising the data collection tools, methods, and procedures. Scale up the data collection activities to cover all regions of Eswatini. Monitoring and evaluation (tracking progress, impact and unintentional consequences).

9.5 Monitoring and Evaluation

Some of the processes involved in monitoring and evaluating EMIS are:

- Utilising already existing indicators and targets that measure the progress and impact of policies and strategies on persons with disabilities.
- During regular monitoring and evaluation routines, collect and analyse disability data in EMIS.
- Report and communicate the results and findings of the monitoring and evaluation reports that can be generated from the EMIS platform.
- Review and improve the data and the information system based on the feedback and suggestions from users of the EMIS.

10. Ensuring the Interoperability of Data

To ensure interoperability of data in EMIS with other system, these steps can be followed:

Step 1: Define the data standards and formats that are compatible and consistent across different data sources, systems, and platforms.

Step 2: Adopt the internationally agreed methods and tools to collect and analyse data on disability (e.g. the WG-SS).

Step 3: Establish and apply the data governance and management policies and procedures that ensure the quality, security, privacy, and accessibility of the data and information on disability. Ensure data quality assurance, data protection and encryption, appropriate data sharing and dissemination, and a feedback mechanism for improvement.

Step 4: Implement and monitor the data exchange and integration processes and mechanisms that enable the seamless and timely flow and use of the data on disability.

Step 5: Evaluate and improve the data interoperability by measuring and assessing the efficiency, effectiveness, and sustainability of the processes in place and their outcomes, especially by way of gathering stakeholder's opinions

Challenges/Risks	Mitigating/Remedial Measures
Lack of understanding of disability inclusion in policies, legislation and strategies	Duty bearers and rights holders should clarify and ensure availability of adequate capacity to implement policies, legislation and strategies related to disability inclusion and disability-inclusive objectives, outcomes and targets
Poor implementation of disability-inclusive policies, legislation and strategies	Capacitate duty bearers, rights holders, implementers and stakeholders on how to implement disability-inclusive policies, legislation and strategies
Lack of or inability to use data on disability	Disseminate and use data in key stages of the policy value chain
Inadequate resources committed to disability inclusion	Mobilize resources from stakeholders.

Annexure A: Washington Group on Disability Statistics

SCREENING TOOL FOR THE EARLY IDENTIFICATION OF DEVELOPMENTAL DELAYS

This tool was developed from the experience of many specialists in the field of childhood development. It also draws from many international databases that have developed similar tools. It is an initial step to identifying children at that are at risk of delays and it is NOT intended to provide a diagnosis.

NAME OF CHILD:_____DOB:_____AGE:_____

SEX:_____CENTRE:_____DATE:_____

GUARDIAN:_____CONTACT:_____

	Yes	No	At times/unsure	Score
0 TO 3 MONTHS				
1.1 Is the child able to suckle?				
1.2 Is the child able to root for the nipple?				
1.3 Does the child coo?				
1.4 Does the child startle to sound?				
1.5 Does the child move all limbs?				
1.6 Does the child calm down when calmed down?				
(3 to 6 months)				
1. Motor				
2.1 Does the child hold head up when lifted?				
2.2 Does the child sit with some support				
Language and communication				
2.3 Does the baby have a social smile				
2.4 Does the child make sounds to show emotions?				
Cognitive/Adaptive				
2.5 Does the child look at hands with interest?				
2.6 Does the child follow close objects?				
Personal/Social				
2.7 Does the child look at familiar faces?				
2.8 Does the child have a social smile?				

	Yes	No	At times/unsure	Score
6 TO 11 MONTHS				
Motor				
3.1 Does the child sit without support?				
3.2 Does the child crawl/stand?				
Language and Communication				
3.3 Does the child respond to their months?				
3.4 Does the child make sound to show emotions?				
Cognitive/Adaptive				
3.5 Does the child reach to grab object/toy?				
3.6 Does the child look for hidden items?				
Personal/Social				

3.7 Does the child **recognize** familiar faces?				

	Yes	No	Some Times/not sure	Score
12 to 23 months				
Motor				
1.1 Does the child pull to stand/ walk alone?				
1.2 Does the child self-feed with fingers?				
Language and communication				
1.3 Does the child follow one step instructions?				
1.4 Does the child say 3 or more words?				
Cognitive/Adaptive				
1.5 Does the child copy movements/chores				
1.6 Does the child recognize everyday objects?				
Personal/Social				
1.7 Does the child show you something interesting?				
1.8 Does the child respond to being calmed down?				
2 Years to 4 Years				
Motor				
1.1 Can the child kick an object?				
1.2Does the child walk properly?				
Language and communication				
1.3 Does the child understand when spoken too?				
1.4 Does the child understand when you speak?				
Cognitive/Adaptive				
1.5 Does the child follow two step instructions?				
1.6Does the child have typical behaviors? (no hand-flapping, no rocking)				
Personal/Social				
1.7 Is the child aware of different emotions?				
1.8 Is the child able to play well with other children?				

	Yes	No	Some Times /unsure	Score
5 to 6 years				
Motor				
5.1 Does the child walk up the stairs?				
5.2 Is the child able to hop?				
Language and communication				
5.3 Can the child tell a short story?				
5.4 Can the child answer short questions about a story?				
Cognitive/adaptive				
5.6 Does the child pay attention (5-10) minutes during an activity?				
5.7 Can the child dress/undress themselves?				
Personal/social				

5.8 Does the child follow rules/ take turns when playing?				
5.9 Does the child do simple chores at home?				
7 years to 12 years				
Motor				
6.1 Can the child hold a pencil				
6.2 Can the child write full names and produce all letters from memory				
Language and communication				
6.3 can the child understand commands with three or more separate instructions				
6.4 can the child read basic words with comprehension to explain them?				
Cognitive/Adaptive				
6.5 Can the child understand concepts of time and direction (day/ night/ morning/ yesterday/ tomorrow				
6.6 Can the child solve simple counting problems				
Personal/Social				
6.7 Can the child cooperate and share with others but appreciate competition?				
6.8 Can the child play with friends of the same gender ?				

Annexure B: Training Agenda

Disability Screening and Reporting Training Agenda

Date: 12 to 15 May 2025 (MOET) and TBD (MOH)
Venue: TBD

Day 1

Time	Activity	Facilitator
09:00 – 09:15	Registration and Housekeeping	All
09:15 – 09:30	Objectives and purpose	All
09:30 – 10:00	Basic sign language training	FODSWA
10:30 – 10:30	Presentation of Disability Screening	Occupational/Speech Therapist
10:30 – 11:00	**Tea Break**	**All**
11:00 – 11:30	Q&A and Discussions	All
11:30 – 12:00	Review of disability data completeness and quality	EMIS
12:00 – 13:00	Training on EMIS Reporting	EMIS
13:00 – 14:00	**Lunch Break**	**All**
14:00 – 15:00	Refresher training of standards for inclusive education .	SEN

Program Director: EMIS/SEN/ECCE

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2025