

# The Effect of Early Childhood Education Training on the Knowledge and Skills of Caregivers and Primary School Teachers in Malawi

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This study is based on the implementation of the JICA Grassroots Technical Cooperation Project titled “Improving Access to and Quality of Pre-primary Education in Rural Malawi.”

# Background

## Increasing the interest in pre-primary education

### International education goals

- Education for All (EFA)
- Sustainable Development Goals (SDGs) 4: “Access to quality early childhood development, care, and pre-primary education”

### The significance of early intervention

- Reduce poverty
- Reduce inequality and social and economic costs
- **Support physical, socioemotional, cognitive, and language development**
- Develop non-cognitive skills, especially effective for disadvantaged children (Heckman & Savelyev, 2012)

### The preparation for formal (primary) education

- **Reduce grade repetition and dropout in early grades** (Kholowa & Maluwa-Banda, 2008)
- Influence academic achievement in primary education (Taniguchi, 2022)

In sub-Saharan Africa, only 49% of children attended pre-primary education (UNESCO, 2024).

# Objective

To analyze the effects of early childhood education training on the knowledge and skills of caregivers and primary school teachers in Malawi.

In particular, the study focuses on changes in knowledge, skills, and practices following training.

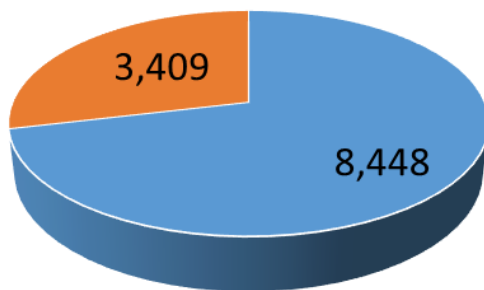
# Types of pre-primary education facilities in Malawi

- Public (Free): Community-Based Childcare Centre (CBCC)
- Private (Tuition): Nursery school

Proportion of Public (CBCC) and Private in Malawi

Public/CBCC Private

Whole

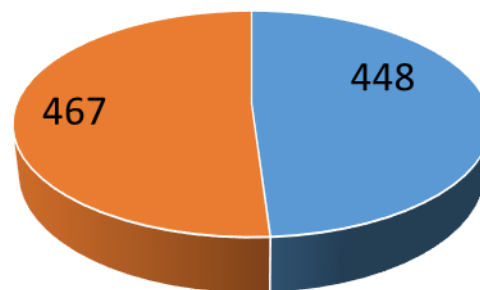


CBCC 70%

Proportion of Public (CBCC) and Private in Lilongwe

Public/CBCC Private

City

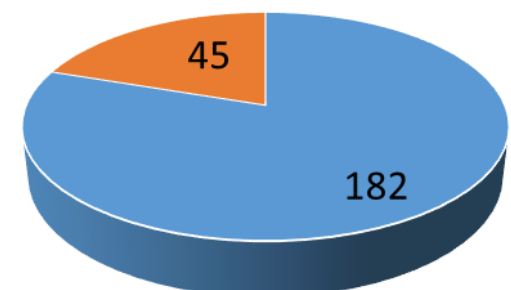


CBCC 50%

Proportion of Public (CBCC) and Private in Nkahta Bay District

Public/CBCC Private

Rural



CBCC 8割

Source: MoGCDSW (2021)

# Access to pre-primary education in Malawi

- Increased number of facilities

7,801 facilities (2007) → 12,220 facilities (2018)

cf. Number of primary schools : 6,194 (2017/18)

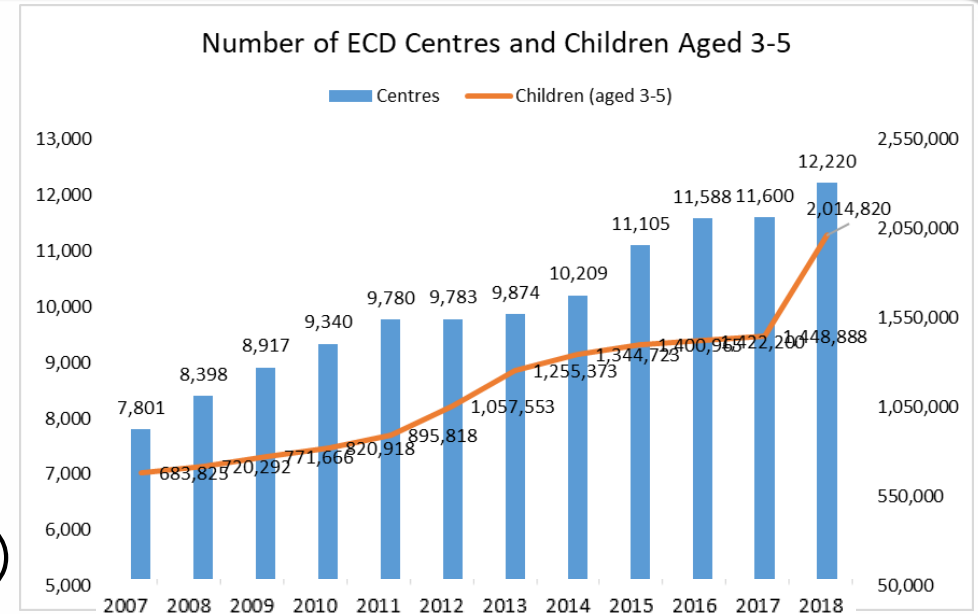
A shortage of facilities

- Increased number of children aged 3–5 years old access to pre-primary education

683,825 children (2007) → 2,014,820 children (2018)

cf. Number of children in primary education: 5,187,634 (2017/18)

- Number of children aged 3–5 years old access to pre-primary education: 48.7% (2018)



(Source: MoGCDSW, 2018)

One out of two children aged 3-5 years old can access to pre-primary education.

# Situation of caregivers in Malawi

## Types of trainings

1. 14 days
2. 6 months : Repeat three times (Studying for two weeks+ Practice in ECD facilities for eight weeks)

	Whole	City Lilongwe	Rural Nkhata Bay
Number of caregivers	35,063	2,157	595
Number of trained caregivers	16,575 (47.3%)	1,518 (70.4%)	384 (64.5%)
Number of caregivers per facility	3.02	2.36	2.62
Number of trained caregivers per facility	1.43	1.66	1.69
Number of children per caregiver	41.84	90.15	52.42
Number of children per trained caregiver	88.50	128.10	81.22

(Source : MoGCDSW, 2021)

A shortage of trained caregivers

# Management in CBCC

## Establishment

- Venue
- Find caregivers



## Management

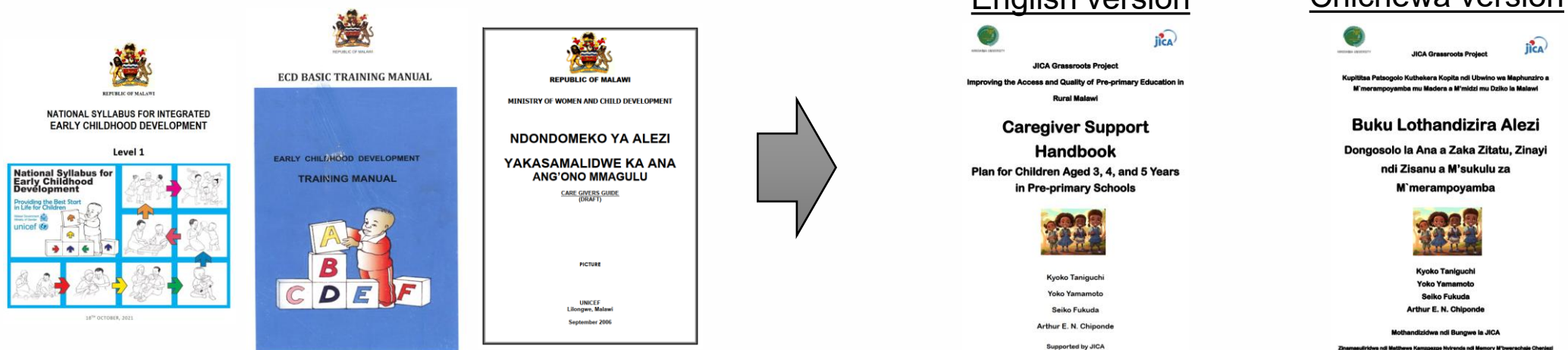
- 2-4 Caregivers (Volunteer, basically no salary)
- 0 – 10 Committee members
- 1 Child protection worker

\* Honorarium for mentors: MK20,000/ month = Approximately \$11 (From 2022)



# Methodology: Made teaching and learning materials

- “Caregiver Support Handbook” was made in both English and Chichewa based on the ECD national curriculum, caregiver training manual, and caregiver guidebook.
- It was made by experts in education, public health, and nutrition. In addition, Ministry of Gender, Community Development, and Social Welfare and District Social Welfare Officers checked the contents.



# Methodology:

## The contents of “Caregiver Support Handbook”

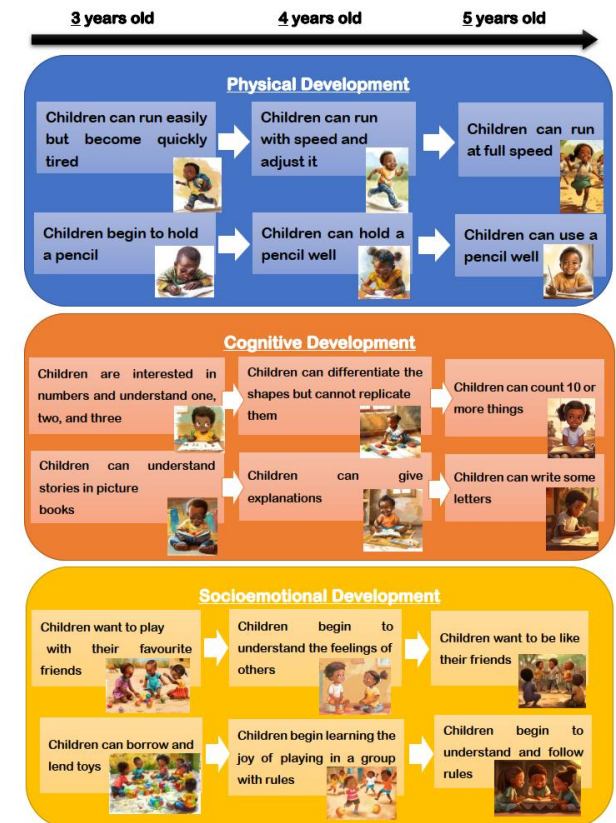
1. Child development
2. Creating a plan
3. Health and nutrition
4. Facility management

\* Using simple sentences and pictures

### Table of contents

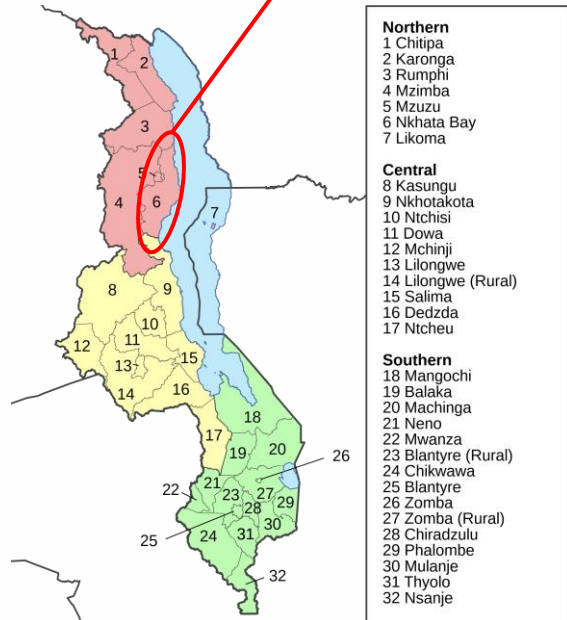
Acknowledgements .....	3
Forward .....	4
How to Use This Handbook.....	5
I. Understanding the Development of Children Aged 3, 4, and 5 Years .	6
1. Development of Children Aged 3, 4, and 5 Years .....	7
2. 3 years old .....	11
3. 4 years old .....	14
4. 5 years old .....	17
II. Creating a Plan.....	21
1. Creating an Instructional Plan .....	22
2. Example of an Instructional Plan .....	25
3. Evaluation.....	28
III. Supporting the Health and Nutrition of Children.....	29
1. Health Support.....	30
2. Nutrition Support .....	34
IV. Managing the Facility.....	39
1. Role of the Caregiver .....	40
2. Community and Parental Support .....	42
References .....	43
Appendix A: Annual/Term/Monthly Plans .....	44
Appendix B: Weekly/Daily plan.....	45
Appendix C: Daily plan .....	46
Appendix D: Length/height for age.....	47
Appendix E: Weight/height for age .....	48

### 1. Development of Children Aged 3, 4, and 5 Years



# Methodology: Overview

Target area:  
Nkhata Bay District



- Target area : Nkhata Bay District
- Days implemented training: Three days in the early September, 2024

Participants	Number
District Social Welfare Officer	4
District Education Officer	2
Child Protection Worker	3
Caregivers from 5 facilities (3 each facility)	15
Teachers from 7 primary schools (Head teacher and grade 1 or 2 teacher)	14
<b>Total</b>	<b>38</b>

- 2 Experts
- 17 JICA Overseas Volunteers

# Methodology: Training

1<sup>st</sup> day: The expert explained the contents and the social welfare officer translated it to Chichewa.

2<sup>nd</sup> and 3<sup>rd</sup> days: The social welfare officer explained the contents and experts followed them.

Introduction of played-based learning



Creating plans for activities



Measuring height



Creating a dietary board



# Methodology:

## Measure the effect of training 1

- Time: Before and after training
- Sample: Participants in the training
- Tool: Questionnaire
- Analysis: Descriptive statistics and paired t-test

### The contents of the questionnaire

Item		Number	
Understanding of knowledge and skills in pre-primary education	Child development	6	12
	Creating a plan	2	
	Health and nutrition	3	
	The role of caregivers	1	
Confidence in implementing the training content		6	

# Methodology:

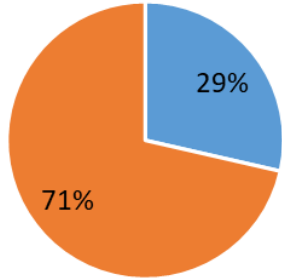
## Measure the effect of training 2

- Time: Six months later, after training in March 2025
- Samples: 15 Caregivers in 5 CBCCs, 3 Child Protection Workers, 22 Committee members, and 10 primary school teachers.
- Tool: Semi-structured interview, video records, and observation
- Analysis:
  - Semi-structured interview: Content analysis and text mining
  - Observation: Analyze video and field notes

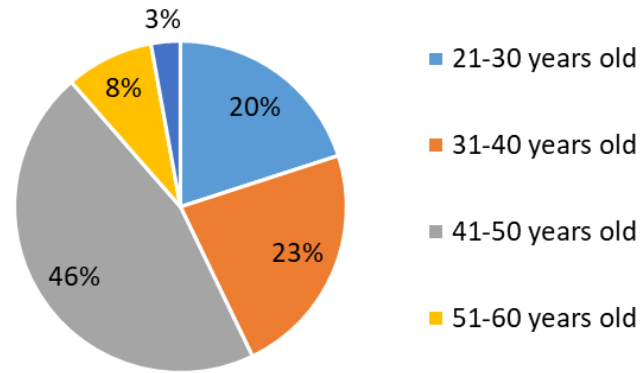
# Results for the 1<sup>st</sup> research: Demographic information in the questionnaire

Gender

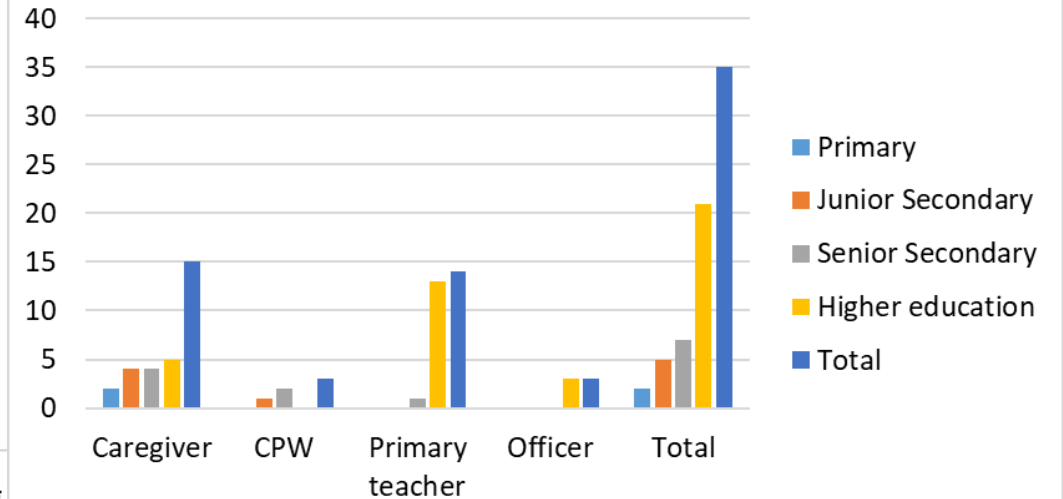
■ Male ■ Female



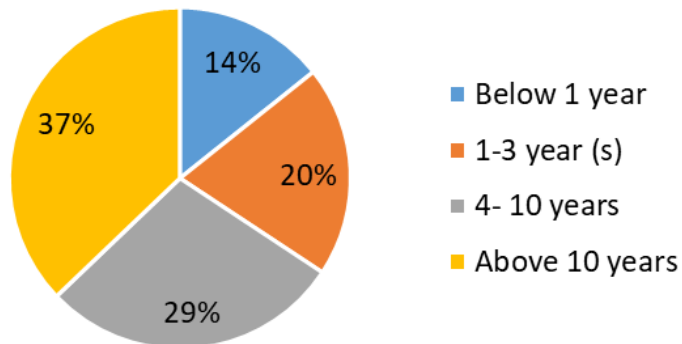
Age



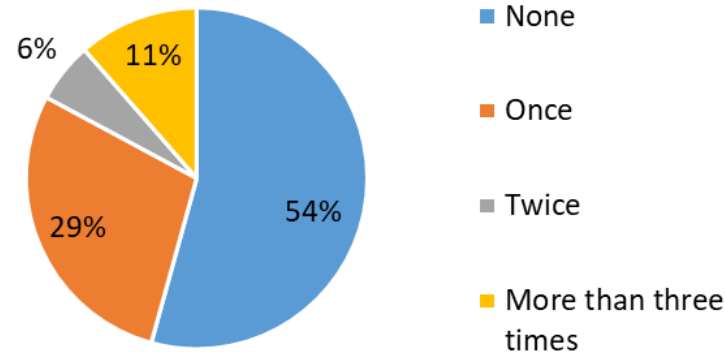
Education level



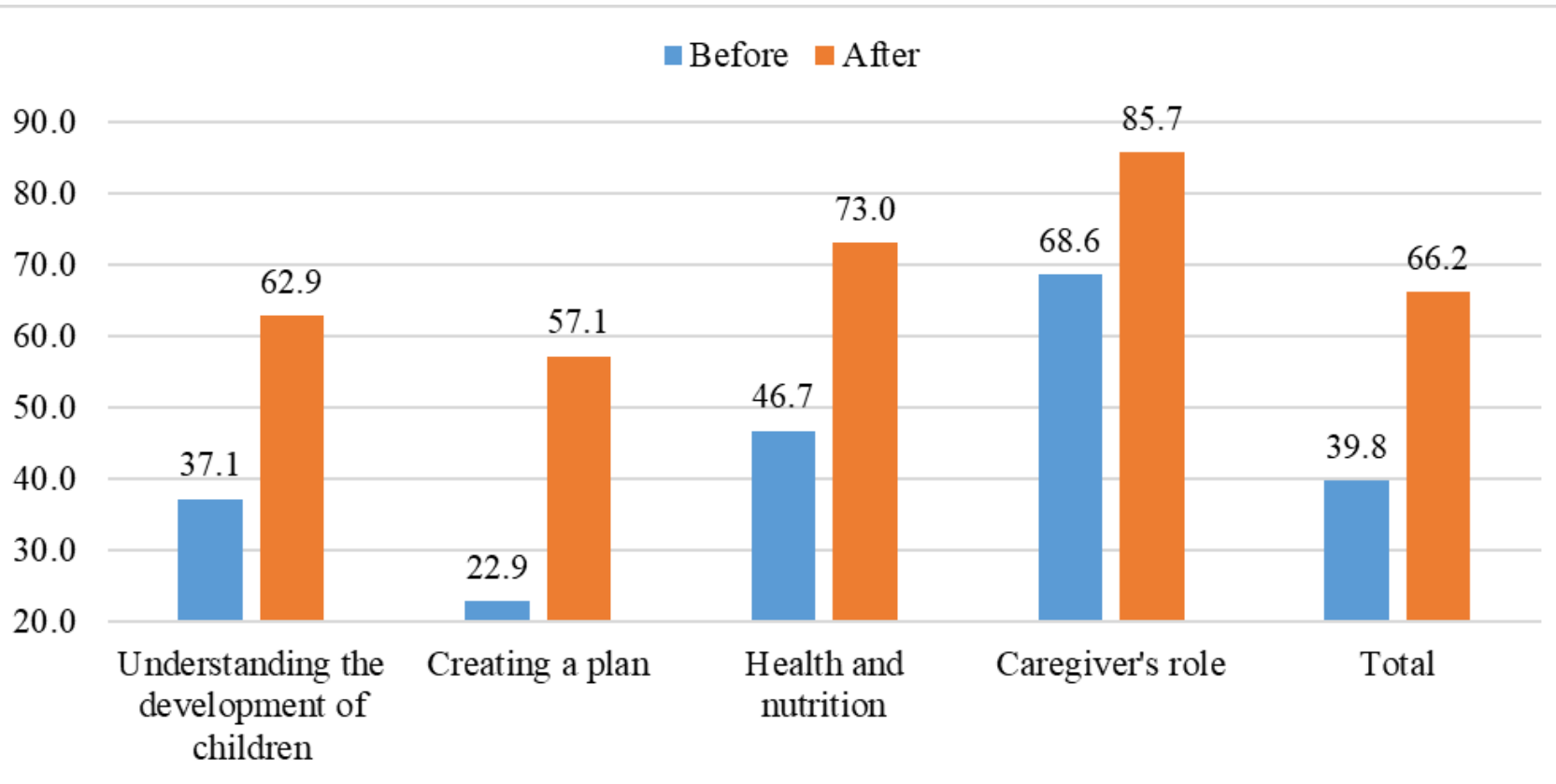
The length of teaching experience



The number of training



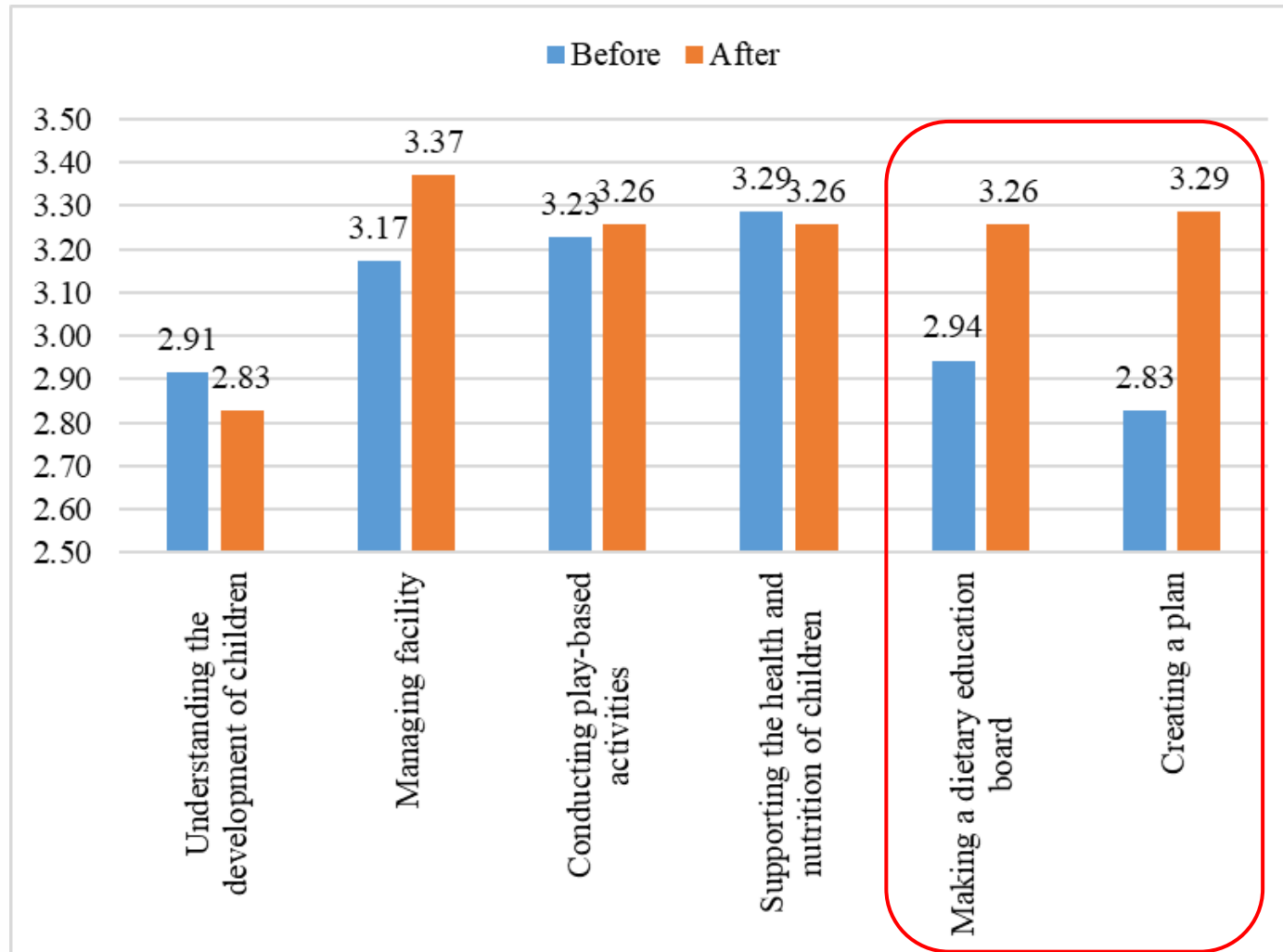
# Results for the 1<sup>st</sup> research: Acquisition of knowledge and skills



- The significant improvement was found in all categories. The differences were statistically significant in all categories.
- The effect sizes were large in child development, creating a plan, and health and nutrition.

**Training was short, only for three days, but significant effects were found.**

# Results of the 1<sup>st</sup> research: Confidence of implementation



- Improvements were limited: only two items, nutrition education boards and activity planning, showed gains, with only activity planning reaching statistical significance with small effect size.

Insufficient to build strong confidence in applying the content.

# Results for the 2<sup>nd</sup> research: Interview to caregivers

	<b>Keyword</b>	<b>Explanation</b>	<b>Example of answer</b>
1	<b>Health</b>	Conducted physical measures of children every month.	"Measure height and weight every month."
2	<b>Nutrition</b>	Started planning vegetables in CBCCs to improve nutrition of children.	"Make a garden for sweet potatoes and maize." "Give fruit to children. When we have mango, we give it to them after porridge."
3	<b>Child-centered learning</b>	Considered played-based learning by arranging environment.	"Child-centred: Children start, and teachers follow." "Children can learn by themselves. Introduce children-centered."
4	<b>Changes in caregivers' roles</b>	Provided free playing and learning time to children. Caregivers monitor it.	"Previously, caregivers were busy teaching children, but now they give children time to play and learn." "Monitor children's free play."
5	<b>Created a plan</b>	Planning activities and timetable.	"Make action plans." "The timetable is available."
6	<b>Shared knowledge to community members</b>	Shared knowledge to community members. Told parents to eat various types of food.	Share knowledge with other caregivers." "Encourage parents to eat a variety of foods."
7	<b>Increased number of children in CBCCs</b>	Enhanced community and parents to send children to CBCCs. As a results, number of children was increased.	"Mobilize community and parents. Visit each house to tell parents to send children to CBCC." "Currently, there are 87 children, an increase from the previous number."

# Results for the 2<sup>nd</sup> research: Interview to committee members

	<b>Keyword</b>	<b>Explanation</b>	<b>Example of answer</b>
1	<b>Health</b>	Measure and record children' physical development. Children could wash their hand before eating.	"Caregivers measure the height and weight of children." "Children wash their hands before eating."
2	<b>Nutrition</b>	Provided higher nutrition to children by growing vegetables in garden.	"Made a garden for sweet potatoes and maize." "Porridge with mixed other foods."
3	<b>The quality of learning</b>	Children started counting numbers and learnt alphabet than before.	"Children can learn more: counting numbers and the alphabet."
4	<b>Relationship between caregivers and children</b>	Improved the relationship between caregivers and children.	"Children interact better with caregivers." "Caregivers can interact with children."
5	<b>Created a plan</b>	Created activity plans. We can see various types of activities although we see the same activities before.	"We can manage our time effectively through daily planning." "In the past, caregivers would repeat the same content, but now they can change the topic every day."
6	<b>Relationship between caregivers and community</b>	Improved the relationship between caregivers and community members	"There is not much collaboration between community members and caregivers. After the workshop, caregivers can tell their absence."
7	<b>Increased number of children in CBCCs</b>	Increased number of children in CBCC	"Attendance has increased from 42 to 68 children."

# Results for the 2<sup>nd</sup> research: Interview to primary teachers

	<b>Keyword</b>	<b>Explanation</b>	<b>Example of answer</b>
1	<b>Preparation for primary education</b>	Children knew how to use pencil. They could tell teachers to go to toilet by words. Understanding numbers and alphabet were proceeded.	"Children from CBCC know how to hold a pen and work hard. They can tell the time of toilet, count numbers, and tell the alphabet."
2	<b>Application of knowledge and skills</b>	Teachers used games in their lesson. Also, the relationship with children was changed.	"Teachers can interact with children." "We use the game."
3	<b>Cooperation with caregivers in CBCCs</b>	We arranged that children enrolled primary school by 6 years old, not 5 years old.	"Planning to meet caregivers and cooperate with children aged six who attend school, but not with those aged five who do not. "
4	<b>Health and sanitation</b>	Children could wash their hands after toilet. Also, they could tell teachers to got to toilet.	"Children can wash their hands with soap after using the toilet." "They can tell the time of toilet."
5	<b>Advice to parents</b>	The significance of commuting pre-primary education have been gradually considered to parents.	"Parents should send their children aged four to a nursery school."

# Results of the 2<sup>nd</sup> research: Observation (Create a plan and health and nutrition)

In CBCCs, caregivers have implemented the training contents. However, the degree of implementation was varied across CBCCs.

## Found improvements in creating a plan and health and nutrition: Facilities C, D, and E

- In facility E, caregivers and community members continued to confirm and implement activities and making small lunch by using activity plans and dietary board (Photo 1).
- In facility D, caregivers and community members constructed fields for suit potatoes and maize to try to improve nutrition of children.
- In facility C, caregivers made a weekly activity plan (Photo 2).

Photo 1: Daliy activity plan and dietary board (Facility E)

TIME	ACTIVITY	ACQUIRED SKILL
08:00	Singing B. song	Cognitive
08:30	Introducing a pen	Physical
09:00	free playing	Socioemotional
09:30	Balls and toys	Cognitive Physical
09:30	Jumping once	Physical
10:00		
10:30	Eating porridge	Physical
10:30-11:00	Go to home	

**GROUP 5**  
MEAL: FUTARI  
Sweet Potato, Cassava, Groundnuts Powder, Pampusa, Mungo, Salt, Water, Regulate the condition of the body.

SMAGO AND THUWOL II

Photo 2: Weekly activity plan (Facility C)

WEEKLY PLAN	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Physical	Kuwere nsa	Books	Cards	Books	Cards
Cognitive	Cognitive			Cards	Books
Social	KuSeawe ra	masanje	Kumaga maga	Kuimba/Kuvina	Kuumba
Physical					Kumaga mpira.
Cognitive	Kulemb a	Kujambuh zithuzi	manamba la	Kusheda	Kujambuh maShape
Physical					Kulemba zithuzi
Physical	Kutha mangs	Chupako	Kumaga mpira	Follow the leader	Mar Y Jacob
Cognitive					Fish - fish
Spiritual	KuPem Phera	Bible Verses	nthano	Bible Stories	Jayimbo Zauzimu
					Zintuzi Zauzimu/ andhu akate

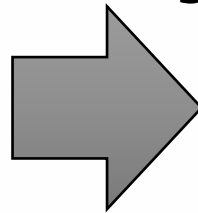
# Results of the 2<sup>nd</sup> research: Observation

In facility D, activities have been drastically improved.



May 2023

After  
training



December 2024

# Discussion and Conclusion

- Knowledge and skills were improved by three-days' training, but confidence in implementing the training contents has not been developed sufficiently.
- After half a year, however, caregivers tried to implement the training contents in their activities. The degree of implementation was varied across CBCCs.
- These differences were likely to be explained by number of training for caregivers and the support from community.
- To improve the quality of pre-primary education, this study suggests that it is necessary to construct a continuous support system, not only a short training.

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# Thank you for listening.

Questions and comments are highly welcomed.

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