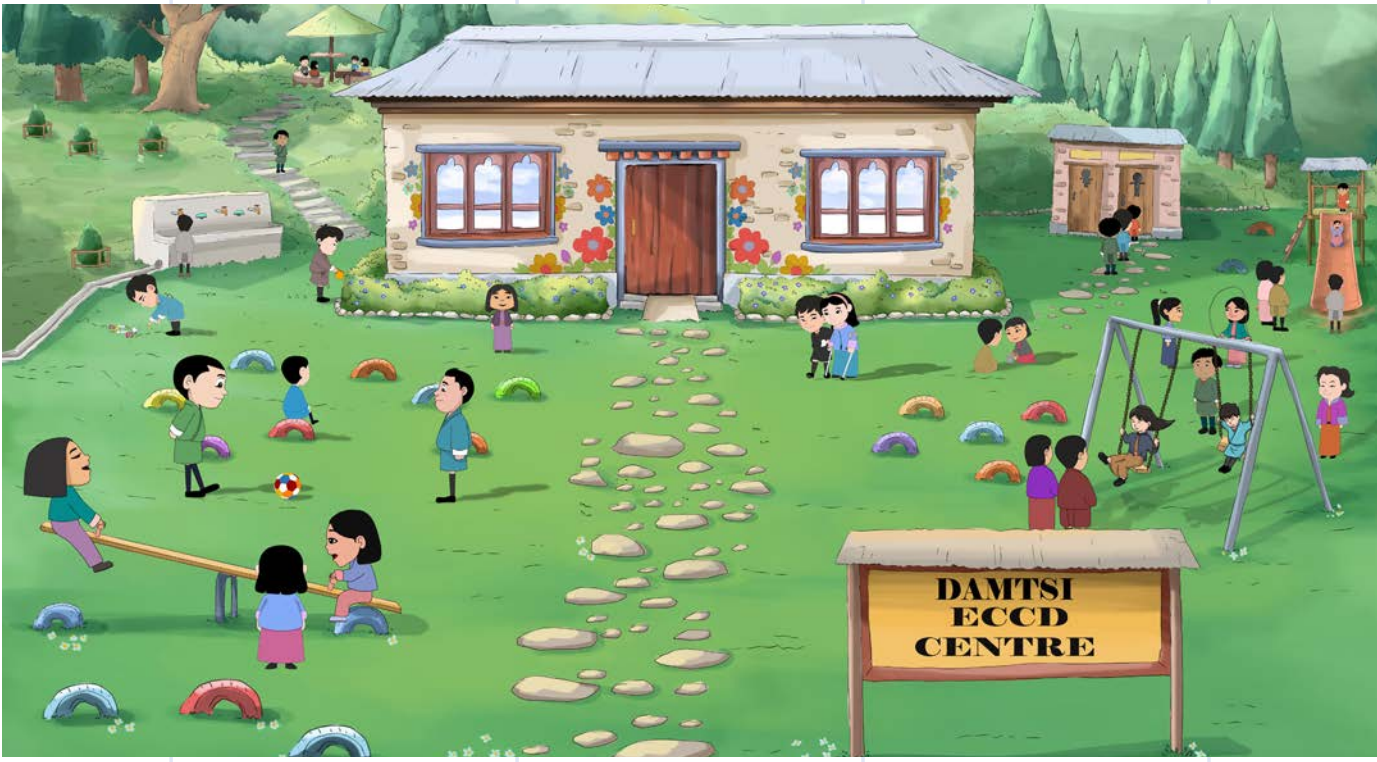
Evaluation of DAMTSI Program

for Early Childhood Care and Development Centres



ANTI-CORRUPTION COMMISSION
THIMPHU: BHUTAN
February 2025

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ACC

ANTI-CORRUPTION COMMISSION

Evaluation of DAMTSI Program for Early Childhood Care and Development Centres

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ANTI-CORRUPTION COMMISSION (ACC) BHUTAN

The Anti-Corruption Commission is a constitutional body mandated to prevent and fight corruption in Bhutan. Established on 31st December 2005 by Royal Decree, its mission is to tackle corruption through leading by example, achieving excellence in partnership and mainstreaming anti-corruption measures in public or private organizations.

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About this Report

The Evaluation of the DAMTSI Program for ECCDs was carried out in collaboration among the Anti-Corruption Commission (ACC) of Bhutan, the Bhutan Transparency Initiative (BTI), and the Ministry of Education and Skills Development (MoESD), Bhutan.

Every effort was made to verify the accuracy of the information contained in this report. All information was believed to be correct as of November 2024.

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ABBREVIATIONS

ACC	Anti-Corruption Comission.
BECEDA	Bhutan Early Childhood and Development Education Association
DAMTSI	Developing Accountable and Moral, Trustworthy and Successful Individual
DEO	Dzongkhag Education Officers
ECCD	Early Child Care development
MoESD	Ministry of Education and Skills Development.
NIA	National Integrity Assessment
NFE	Non-Formal Education
NSB	National Statistical Bureau
PhD	Doctor of Philosophy
SEN	Special Education Needs
TEO	Thromde Education officers
YIA	Youth Integrity Assessment.
YIP	Youth Integrity Program

EXECUTIVE SUMMARY

The Early Childhood Care and Development (ECCD) centres in Bhutan play a vital role in shaping young minds and instilling moral values, contributing to the development of responsible individuals. The integration of value-based education in ECCD programs is a global trend, focusing on instilling values like responsibility, respect, and empathy in young children. With its Gross National Happiness (GNH) framework, Bhutan promotes holistic development by embedding values like honesty and compassion in ECCD programs. The DAMTSI (Developing Accountable and Moral, Trustworthy and Successful Individuals) program, aligned with these global and regional principles, aims to foster these core values among young children through activities that encourage honesty, fairness, and responsibility.

Developed as part of the Youth Integrity Program (YIP) by the ACC and the MoESD, the DAMTSI program is designed to engage children aged 2 to 5 and their parents in activities that promote moral development. The program has been positively received, though no formal evaluation has been conducted to assess its impact. This study evaluates the DAMTSI program's effectiveness through process and product evaluations, focusing on its implementation and impact on children's behavior. By measuring behavioral changes and differences between children who participated in the program and those who did not, the study aims to determine how well the program fosters positive behavioral traits like honesty, responsibility, and fairness.

Awareness of the program is notably high among ECCD centres, with 369 out of 399 centres familiar with it and 359 actively implementing it. Similarly, 85% of facilitators (out of 613) demonstrated familiarity with the program.

However, parental awareness remains inconsistent, and variations were observed in the frequency and depth of program implementation across centres. While the DAMTSI program is widely implemented with active participation from both facilitators and parents, these inconsistencies underscore the need for a more structured and standardized delivery approach to ensure long-term effectiveness and uniformity.

The program evaluation indicates positive contributions to behavioral improvements, with parents and facilitators reporting enhanced practices in honesty, responsibility, and fairness. However, several challenges could hinder its long-term effectiveness. Improvements in children's behavior, particularly in areas such as seeking permission, adhering to rules, and assuming responsibility, were observed by both parents and facilitators. However, facilitators reported slightly lower levels of improvement than parents, suggesting discrepancies in perception. Teachers also reported noticeable behavioral differences between children who participated in the DAMTSI program and those who did not, with DAMTSI-trained children demonstrating better discipline, responsibility, and honesty. The behavioral difference score indicates that children exposed to the DAMTSI program were more likely to

exhibit positive traits, suggesting the program's effectiveness in preparing them for academic and social success.

The DAMTSI program was generally considered age-appropriate and practical. However, facilitators rated its content moderately appropriate, indicating room for refinement to align with children's developmental stages and learning needs. Both parents and facilitators widely recognized the program's effectiveness in instilling values.

Despite these successes, the evaluation identified key challenges in program implementation. Facilitators and parents faced difficulties due to insufficient resources, insufficient training, and challenges conducting certain program activities. Additionally, limited parental involvement and the absence of refresher training for facilitators were significant barriers to the program's success.

Therefore, the stuy proposes the following recommendations to be implemented by the stakeholders:

General Recommendation	Specific Recommendation	Responsibility
Strengthen Directives for Uniform Implementation of the DAMTSI Program	The Ministry to provide an explicit and well communicated directive to all stakeholders regarding the mandatory implementation of the DAMTSI program.	MoESD
Enhance Awareness of the DAMTSI Program	Enhance Outreach through ECCD Centres with the support of local governments. Support ECCD centres in developing targeted communication strategies to promote the DAMTSI program during parenting sessions, training, and community events	Dzongkhags/ Thromdes Principals Facilitators Gewogs Parents
Capacity Building of Facilitators	Long Term: Collaborate with the Royal University of Bhutan (RUB) to integrate the DAMTSI program into diploma and degree courses in EECCD.	MoESD ACC

	Interim: The Ministry to direct Dzongkhags and Gewogs to strengthen professional development of facilitators by allocating budgets and incorporating it into their plans. Priority should be given to organizing training sessions and refresher courses in Dzongkhags with a significant number of untrained facilitators, particularly in private ECCD centres	Dzongkhags/ Thromdes Principals Gewogs
Strengthen DAMTSI-Specific Indicators into Monitoring and Evaluation Framework	Explore ways to strengthen the incorporation of DAMTSI specific values in the descriptors of the QMTEC to track implementation levels in ECCD Centres and availability and usage of resources. Parents and facilitators can use the 19 indicators to track behavioral change in children.	MoESD Dzongkhags/ Thromdes Principals Facilitators Parents
Improve Resource Accessibility	Establish a Centralized Resource Hub to provide equitable access to DAMTSI-related materials, including activity books and cards, training manuals, and engaging digital content like animations, rhymes, and songs, to cater to diverse learning styles and improve accessibility, particularly for remote areas.	MoESD ACC
Review the DAMTSI Activity Book	Review the DAMTSI Activity Book to see the possibility of including more activities and ensure content is age-appropriate and inclusive, with specific modifications to accommodate children with special educational needs (SEN).	MoESD ACC
Stakeholder Coordination and Collaboration	DEOs/TEOs to dedicate more time to implementation and monitoring the DAMTSI Program. Engaging LG to mobilize resources for capacity building of facilitators and parental involvement within gewogs	MoESD Dzongkhags/ Thromdes LGs
	Strengthen collaboration and support BECEDA	MoESD ACC

INTRODUCTION

1.1 Background

Early Childhood Care and Development (ECCD) centres play a crucial role in shaping young minds and fostering moral and ethical values that contribute to building responsible and accountable individuals. Globally, the integration of value-based education into ECCD programs has gained prominence to nurture foundational principles such as integrity, accountability, and transparency. For instance, the Reggio Emilia approach, originating in Italy, emphasizes collaboration and community involvement to instill responsibility and respect in children (Edwards et al., 2011). Similarly, the Montessori method integrates moral development into classroom activities, fostering mutual respect and self-discipline as children engage in structured, self-directed learning (Montessori, 1964). In Finland, holistic early education incorporates ethics and empathy through play and nature-based activities, reflecting the global trend of embedding moral values into early education (Paananen et al., 2015).

In the regional context, South Asian nations have also recognized the significance of moral and ethical education in ECCD programs. India's National Education Policy (NEP 2020) highlights integrating ethical and human values through experiential learning and play (Ministry of Education, 2020). Similarly, Sri Lanka incorporates mindfulness and compassion, rooted in Buddhist principles, into its ECCD framework to promote accountability and moral integrity (Jayasekara & Punchihewa, 2020). With its unique Gross National Happiness (GNH) framework, Bhutan emphasizes children's holistic development by instilling values like honesty, compassion, and collective well-being in ECCD centres (Royal Government of Bhutan, 2016). The Developing Accountable and Morale, Trustworthy and Successful Individuals (DAMTSI) program aligns with these principles, aiming to instill core values during children's formative years.

As a part of the Youth Integrity Program (YIP), the ACC, in collaboration with ECCD and SEN Division, MoESD, developed an Integrity Education Handbook for ECCD Facilitators titled "DAMTSI Activity Book" aimed toward Developing Accountable and Moral, Trustworthy and Successful Individuals. The DAMTSI Activity Book has been designed to educate both the children (aged between 2 to 5) and parents on values such as integrity towards laying a solid foundation for the moral development of the children and developing a sense of intolerance of corruption from an early phase of their childhood.

The DAMTSI Activity Book consists of three competencies: ***Honesty, Responsibility,*** and ***Fairness,*** which are under the subdomain of the Spiritual, Moral, and Cultural Development domain of the Early Learning and Development Standards of the ECCD program. The Activity Book comprises wide-ranging activities like games, rhymes, songs, and creative arts, among

others, for the children and parents, thus promoting the anti-corruption values/ principles of *Integrity, Accountability, and Transparency* in children aged 2 to 5 who are enrolled in ECCD Centres. There are 42 activities for the children *(13 for the Honest competency, 14 for the Responsibility competency, and 15 for the Fairness competency)* and 15 for parents *(5 for each competency).* The content and activities were reviewed and updated based on the feedback and suggestions from the pilot test conducted by the ECCD Facilitators in their respective Centres.

Further, to ensure effective implementation of the DAMTSI Activity Book, the Trainer's Guide was developed to familiarize trainers and practitioners with core concepts and principles related to Integrity Education for children and equip them with the skills necessary to implement the activities. The guide includes a two-day training program on the orientation of the activity book and its framework, the importance of Integrity Education in ECCD, and a manual on conducting the activities for children and parents. The participants are expected to gain confidence, not just as facilitators but also as role models for children.

The DAMTSI Program was officially rolled out to all ECCD facilitators in 2021. Since its introduction, the program has received positive informal feedback through word of mouth. Many ECCD facilitators and Dzongkhag Education Officers (DEOs) have praised the program, highlighting its effectiveness in instilling moral values among young children. However, despite these anecdotal reports of success, no formal evaluation or study has been conducted to rigorously assess the program's impact and effectiveness. Thus, this study evaluates the DAMTSI program's effectiveness and impact.

Existing literature identifies two primary approaches to program evaluation: process evaluation and product evaluation. Process evaluation focuses on how a program is implemented, assessing whether it is delivered as designed and aligned with its objectives (Stufflebeam & Shinkfield, 2007). This type of evaluation examines the fidelity of implementation, identifies challenges, and provides insights for improvement (Patton, 2015). On the other hand, Product evaluation systematically assesses a product's performance, outcomes, and goal alignment, emphasizing stakeholder satisfaction and informed decision-making. According to Mertens and Wilson (2018), product evaluation frameworks often include stakeholder input, aligning objectives with measurable outcomes, and integrating feedback into actionable strategies. Altogether, these approaches ensure the evaluation process is rigorous and meaningful for decision-makers. Thus, the study focuses primarily on process evaluation to examine how the DAMTSI program is implemented in ECCD centres and the degree to which its objectives are operationalized. Additionally, elements of product evaluation are included to assess its impact on fostering ethical behavior, accountability, and moral responsibility among the ECCD-going children.

1.2 Objective

The objectives of the study are to:

- To assess the effectiveness of the DAMTSI program
- To validate the contents of the DAMTSI program
- To provide evidence-based recommendations for improving the DAMTSI program

1.3 Research Questions

Objective 1: To assess the effectiveness of the DAMTSI Program

1. Is the DAMTSI Program implemented in the ECCD Centres?
2. How frequently is the DAMTSI Program implemented?
3. What is the level of awareness among respondents regarding the DAMTSI Program?
4. Have there been any observed changes in the behaviors of the children as a result of the DAMTSI Program?

Objective 2: To validate the content of the DAMTSI program

1. How relevant and appropriate is the DAMTSI Program?
2. Is the DAMTSI Program adequate to meet its intended goals and objectives?
3. How useful are the DAMTSI Activities perceived to be?
4. What are the challenges and issues encountered during the implementation of the DAMTSI Program?
5. What are the challenges and issues encountered during the implementation of the DAMTSI Program?

Objective 3: To provide evidence-based recommendations for enhancing the DAMTSI program

1. What insights and suggestions do respondents provide for improving future iterations of the DAMTSI program?
2. What evidence-based recommendations can be developed to enhance the effectiveness and sustainability of the DAMTSI program?

2 METHODOLOGY

2.1 Research Method

A mixed-method approach was employed, combining quantitative surveys and qualitative interviews to address the research questions comprehensively.

2.2 Population

The study population includes

1. ECCD Facilitators
2. Parents of ECCD Children
3. Pre-primary school teachers
4. Principals of schools
5. Education Officers of Dzongkhags and Thromdes
6. Bhutan Early Childhood and Development Education Association (BECDEA)

The survey respondents' list was collected from the MoESD.

2.3 Sample Size and Response Rate

Different sampling methods were incorporated for the study depending on the varied population included. For the survey to be considered representative, a response rate of 30% was considered for the online survey. As for the field data collection, a response rate of 70% was considered.

2.3.1 ECCD Facilitators

All facilitators (N=894) were invited to participate in the survey. An online Google form survey was sent to all ECCD facilitators. Of the 894 facilitators, 615 ECCD Facilitators responded to the survey questionnaire. However, two sets of responses were not used for the analysis or assessment because they were either blank or incomplete. Upon further inquiry, the two respondents were not ECCD facilitators. The response rate was 70.70% from the Google form survey.

2.3.2 Pre-Primary Teachers

All pre-primary teachers (N=1606) were invited to participate in the survey. An online Google form survey was sent to all pre-primary teachers. Of the 1606 pre-primary teachers, 627 responded to the survey questionnaire. A response rate of 39.0% was achieved. According to Le Masson (2023), a response rate above 30% is generally considered excellent. In this context, a 39% response rate indicates a relatively acceptable level for analysis.

2.3.3 Parents

A total sample size of 385 was calculated to be surveyed from the 11881 ECCD parents. The following formula was used to determine the sample size of the respondents (Parents of the ECCD children). The sample size was calculated considering a 95% confidence level and a 5% margin of error (Kibuacha, 2021).

Where;

$$Sample\ Size = \frac{(Z-score)^2 * StdDev * (1-StdDev)^2}{(Confidence\ Interval)^2}$$

- n is the sample size
- stdDev is 1
- Z-score is 1.96 for 95% confidence level
- Confidence interval is 0.05

$$= \frac{(1.96)^2 * (.5)^2}{(.05)^2}$$

$$= 384.16$$

A Simple Random Sampling (SRS) with Replacement was used to select 385 parents for the survey. SRS was computed in Microsoft Excel using the following formula:

$$P = 1 - \left(1 - \frac{1}{N}\right)^n$$

where:

- **N** is the total population size.
- **n** is the number of times the sample is selected.

This formula represents the probability of selecting the same sample at least once when drawing n times from a population of size N with replacement. The term $(1 - \frac{1}{N})^2$

represents the probability that a specific sample is never selected in n trials, and subtracting it from 1 gives the probability that it is chosen at least once.

A Dzongkhag-wise distribution of the respondents and ECCD centres covered are presented in **Table 1** and **2** below.

Table 1. A Dzongkhag-wise distribution of the respondents

Dzongkhag & Thromde	Parents.	Facilitators	Teachers
Bumthang	16	19	40
Chhukha	30	37	34
Dagana	15	22	15
Gasa	2	8	6
Haa	1	6	0
Lhuentse	12	23	15
Mongar	24	65	31
Paro	21	26	52
Pemagatshel	11	19	40
Punakha	17	17	1
Samdrupjongkhar	12	34	41
Samtse	18	25	10
Sarpang	28	28	17
Thimphu	6	11	44
Trashigang	30	54	87
Trashiyangtse	18	30	43
Trongsa	9	21	23
Tsirang	11	20	13
Wangdue Phodrang	26	23	14
Zhemgang	9	25	64
Thimphu Thromde	55	54	20
Phuntsholing Thromde	7	19	13
Samdrupjongkhar Thromde	5	6	0
Gelephu Thromde	2	21	4

***Note**. Source (n=385 parents, 613 facilitators, 627 teachers)*

Table 2. A Dzongkhag Wise Distribution of ECCD Centres covered in the study

Dzongkhag	Facilitators	Parents	Teachers
Bumthang	14	8	40
Chhukha	29	15	34
Dagana	16	11	15
Gasa	5	2	6
Haa	5	1	0
Lhuentse	19	10	15
Mongar	42	16	31
Paro	10	11	52
Pemagatshel	16	10	40
Punakha	13	14	1
Samdrupjongkhar	27	9	41
Samtse	21	14	10
Sarpang	19	16	17
Thimphu	8	5	44
Trashigang	36	17	87
Trashiyangtse	25	12	43
Trongsa	16	4	23
Tsirang	17	7	13
Wangdue Phodrang	12	14	14
Zhemgang	20	6	64
Thimphu Thromde	12	17	20
Phuntsholing Thromde	6	3	13
Samdrupjongkhar Throm	3	3	0
Gelephu Thromde	8	1	4
Total		**399**	**226**

Note. *Source (n=385 parents, 613 facilitators, 627 teachers)*

2.4 Data Collection

A semi-structured survey questionnaire was administered to the respondents (parents, ECCD facilitators, and teachers of pre-primary classes) to assess the perceived changes in children's behavior and respondents' awareness levels of the DAMTSI Program. Data was also collected on implementation challenges and respondents' suggestions for improvement of the DAMTSI Program. There were three sets of questionnaires to collect quantitative data from parents, facilitators and teachers of pre-primary (PP) classes.

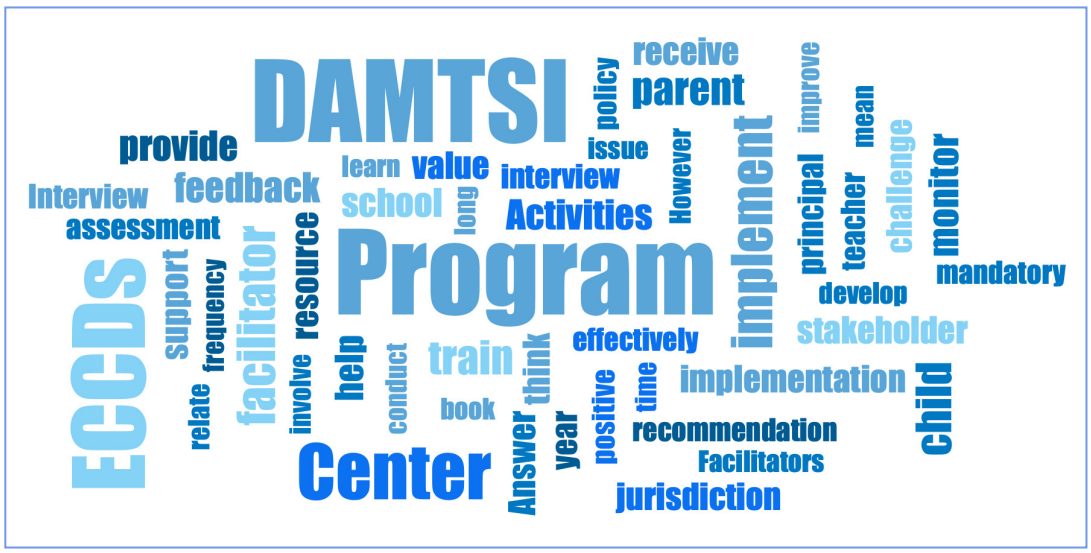
One principal and one education officer from each Dzongkhag and Thromde were interviewed face-to-face. The goal was to gather in-depth insights into the DAMTSI program's perceived impact on children, implementation challenges, and suggestions for improvements. A total of 24 Principals and 24 Education Officers were interviewed for the study. A purposive sampling was used to select DEOs/TEOs and Principals for the interview, given their role as focal persons to monitor and evaluate the implementation of ECCD programs under the Dzongkhags.

Figure 1. Wordcloud of Semi-structured Interview with the DEOs/TEOs

Figures 1 and **2** illustrate an analysis of the keywords frequently mentioned by DEOs/TEOs and Principals during the interview. The most prominent words, such as "DAMTSI," "Program," "Centre," and "Implement," suggest that the discussion revolves around the operational aspects of the program. Words such as "facilitator," "train," and "monitor" indicate that a significant portion of the discussion focused

on the facilitators' roles in delivering the program, emphasizing the importance of training and regular monitoring to enhance its effectiveness. The use of words like "parent," "stakeholder," and "teacher" highlights the emphasis placed on engaging different stakeholders in the program's success. The presence of terms like "feedback," "challenge," "recommendation," and "support" suggests that DEOs/TEOs and principals recognize both the challenges of implementing the program and the importance of receiving adequate resources and feedback to address these issues. The word clouds highlight the practical concerns around policy implementation, monitoring, and stakeholder engagement to ensure the program's success in improving early childhood education outcomes.

Figure 2. Word cloud of semi-structured interview with the principals



Further, the Bhutan Early Childhood Education Development Association was also consulted to gain deeper insights into some policy-level implementation challenges faced by private ECCDs in Bhutan.

All questionnaires were pilot-tested in Thimphu Dzongkhag and Thimphu Thromde, covering 40 parents. A further questionnaire was shared through a Google form survey with 40 teachers and 40 pre-primary teachers. The pilot test helped ensure the questions were appropriate to measure the research objectives. It also helped determine the average time of enumeration to plan for actual data collection.

Thirteen university graduates were recruited as enumerators to execute the actual field data collection. They were adequately trained in research ethics, survey procedures, and questionnaire interpretation. The field survey was conducted from October 20, 2024, to November 23, 2024, using mobile Android tablets through the web-based application Epicollect5.

2.5 Data Analysis and Interpretation

Data cleaning and screening were carried out before data analysis and interpretation. Stata Version 18 was used to clean, screen, and analyze the data. Descriptive statistics was used to summarize the data from surveys and questionnaires.

T-test was performed to find the difference in respondents' awareness levels and perceptions of behavioral changes.

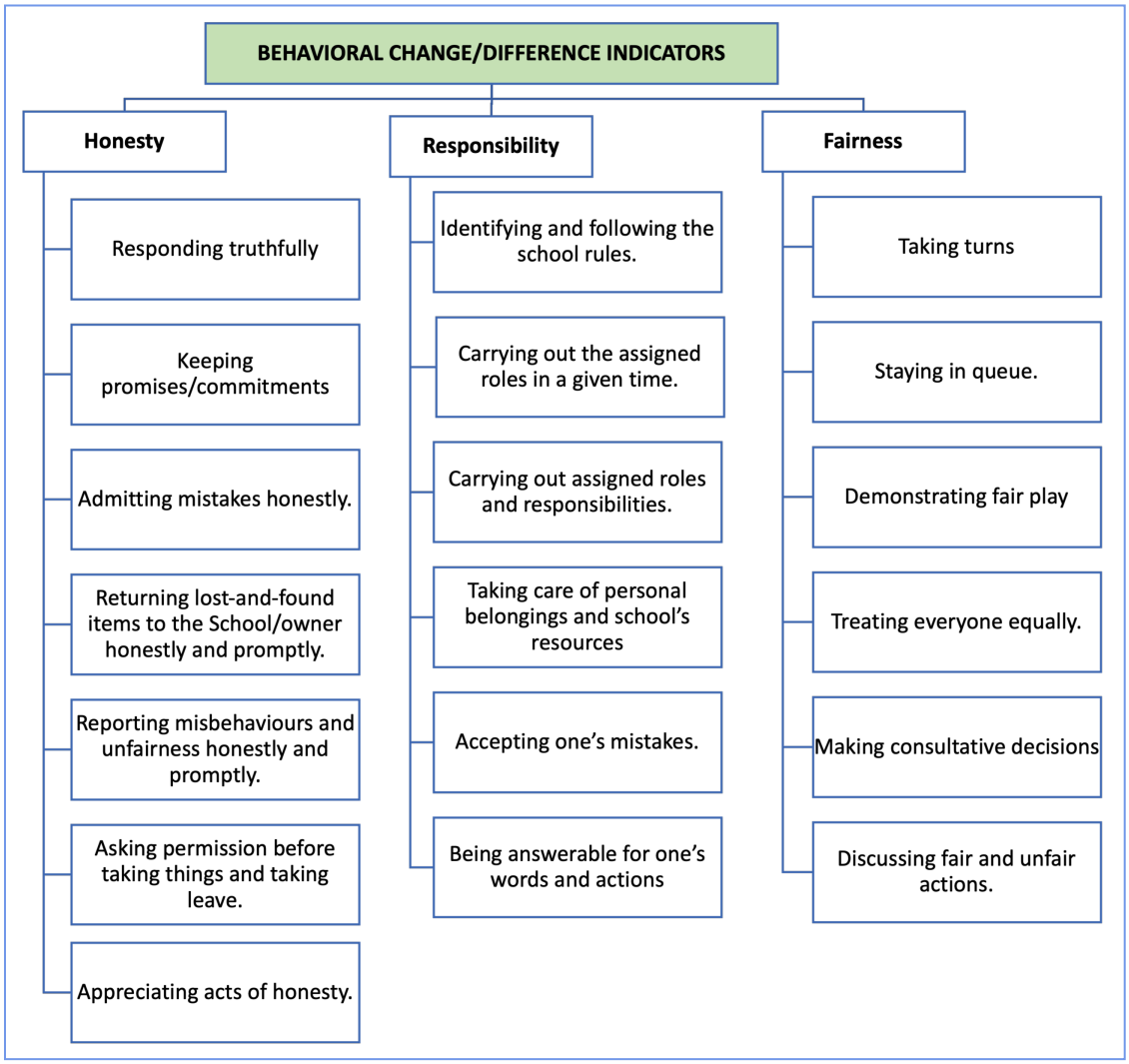
Correlational analysis was performed to find the relationship between the top three challenging DAMTSI Activities and the identified variables.

Thematic analysis was done to identify common themes and patterns from the interview and focus group transcripts. MAXQDA 24 assisted in organizing and coding qualitative data.

In this study, the behavioral change and behavioral difference scores serve as proxy measures to assess the program's impact in terms of how the program has been effective in bringing behavioral change in ECCD-going children. The behavioral change score is derived by averaging the means of 19 key indicators from the DAMTSI program, which focuses on the three core values of honesty, responsibility, and fairness as shown in **Figure 3**. These indicators are evaluated based on the ratings provided by both facilitators and parents on the ECCD-going children. Additionally, a behavioral difference score obtained from teachers teaching pre-primary (PP) classes is used to compare the behavior of students of PP classes who participated in the program in ECCDs with those who did not, based on the same 19 indicators.

This comparison further helps to measure the program's effectiveness in improving children's behavior. Specifically, it looks at whether children who participated in the DAMTSI program showed more positive behavioral changes than those who did not, as perceived by the teachers of PP classes. The behavioral difference score determines the difference in the behavior between two groups of PP students.

Figure 3. Behavioral Change and Behavioral Difference Indicators



2.6 Score Interpretation

A floating scale was used to define the score. The scores are categorized into levels (High, Moderately High, Moderately Low, and Low). The average and standard deviation of the means of variables are considered to fix the scale for level "moderately high"; accordingly, the other levels are defined. The score for behavioral change is interpreted as given in **Table 3**.

Table 3. Score Interpretation for Behavioral Change

Score	Level
Above 3.87	High
3.46-3.87	Moderately High
3.04-3.45	Moderately Low
Below 3.04	Low

2.7 Ethical Considerations

The research design adhered to stringent ethical standards to safeguard participants' identity and privacy. Data was anonymized and securely stored to prevent unauthorized access. Participants' consent was obtained before conducting surveys or interviews, ensuring they were informed about their participation's confidentiality and voluntary nature. The study sought approval from MoESD, Dzongkhags and Thromdes, Schools and ECCD Centres for the conduct of this study. A survey clearance from National Statistics Bureau (NSB) was also sought and fully complied with ethical guidelines for human subject's research. A validation meeting was also conducted with the ECCD and SEN Division under the Department of School Education, MoESD to validate the findings and establish the timeline for implementing study's recommendation.

2.8 Reliability

The study uses two data sets- Parents and Facilitators- to generate the behavioral change score. Descriptive statistics are used to substantiate the behavioral change score. Since most of the questions are multiple-item Likert scales, the Cronbach alpha test was used to measure the reliability or internal consistency of the test items as a composite score. This means Cronbach's alpha measures whether or not a score is reliable. It is computed by correlating the score for each scale item with the total score for each observation and then comparing that to the variance for all the individual item scores. If the correlation is high, Cronbach's Alpha will likely increase and vice versa. The general rule of thumb to interpret Cronbach's Alpha is given in **Table 4**, Rule of Thumb to interpret Cronbach's Alpha.

Table 4. Rule of Thumb to interpret Cronbach's Alpha

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Cronbach's Alpha is represented on a scale ranging from 0 to 1. According to the established rule of thumb, a value of 0.70 or higher indicates acceptable reliability of the item scores. Values below 0.70 suggest low internal consistency among the items, reducing the statistical analysis's confidence level. As presented in **Table 5**, Cronbach's Alpha values for parents and facilitators exceed the threshold of 0.70, indicating that the behavioral change scores obtained in this study are reliable, valid, and acceptable.

Table 5. Cronbach's Alpha Value for Two Datasets

Data Sets	Observations	No. of items	Cronbach's Alpha
Parents	384	19	.79
Facilitators	499	19	.92

2.9 Limitation

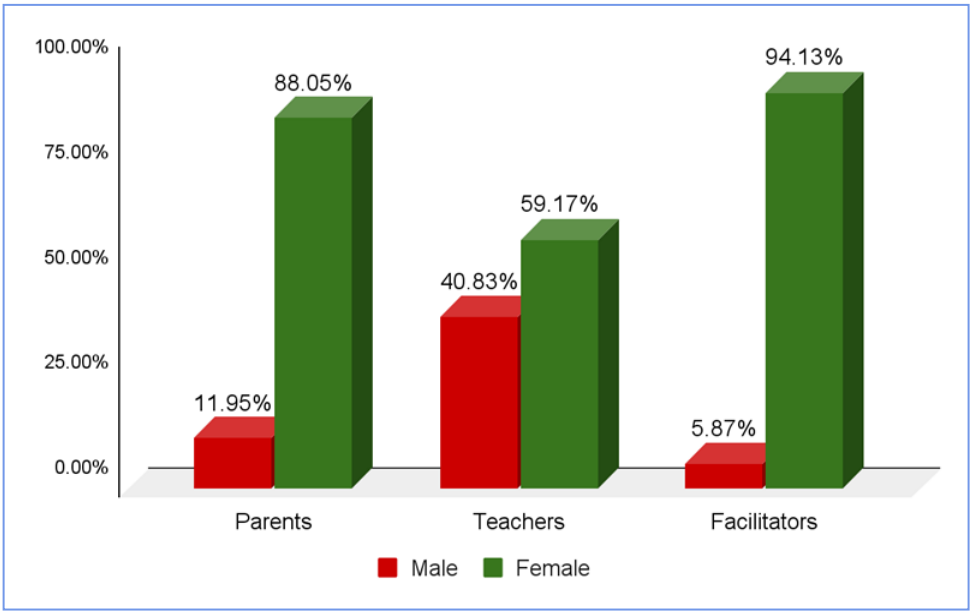
The evaluation, conducted shortly after implementing the DAMTSI program, may not capture long-term impacts on children's behavior and moral development. Behavioral change scores obtained from proxy ratings provided by parents and facilitators are inherently subjective and reflect the raters' perceptions rather than the children's actual behaviors. This reliance on proxy measures can introduce response bias or social desirability bias, affecting the accuracy of the findings. Additionally, the absence of direct observation limits the study's ability to assess genuine behavioral changes, as proxy scores may fail to capture nuanced or context-specific improvements in children's behavior. Moreover, relying on proxy scores complicates the ability to draw a direct causal relationship between the DAMTSI program and observed behavioral changes. The reported behavioral changes may be influenced by external factors, such as parenting practices, community norms, or other educational programs, making it difficult to isolate the program's specific impact.

3.1 Demographic Profile

3.1.1 Gender

As depicted in **Figure 4**, most parents surveyed were female, 88.05% of the total parent sample, while males represented only 11.95%. Similarly, among 613 facilitators surveyed, the majority were female (94.13%), while males represented only 5.87%. In contrast, the gender distribution among the 627 teachers was more balanced, though females still represented the majority. Female teachers accounted for 59.17% of the sample, while males comprised 40.83%. Overall, female participation in all three groups is higher than that of male.

Figure 4. Gender-wise Distribution of Respondents



Note. *Source (n=385 parents, 613 facilitators, 627 teachers)*

3.1.2 Education Qualification of the Respondents

As shown in **Table 6**, a notable proportion (17.14%) of surveyed parents have no formal education. 20.52% of parents hold at least a Class X education, and 17.92% have completed Class XII. A significant percentage of parents have bachelor's degrees (8.05%). However, it remains far less common than lower-level education. The absence of higher qualifications like Master's degrees (1.56%) and PhDs (0.26%) further emphasizes the lower level of advanced education among parent respondents.

The education level of facilitators shows some distinctions compared to parents. A notable 55.14% of facilitators have completed Class XII, and 26.43% hold a Diploma. Facilitators with Bachelor's degrees (7.99%) and Master's degrees (0.16%) further indicate that the group is moderately qualified. Teachers in the sample show the highest levels of education, with a remarkable 85.17% holding a Bachelor's Degree. Only 5.90% of teachers hold a Master's degree, and just 0.16% have completed a PhD.

Table 6. Education Qualification of Respondents

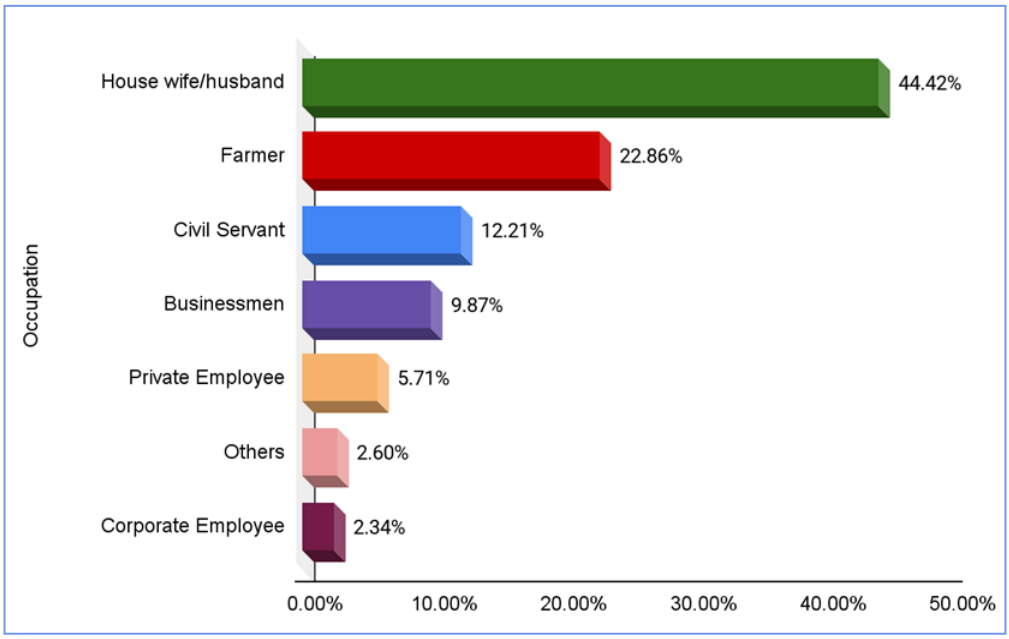
Years of Grade	Parents	Facilitators	Teachers
No Education	17.14%	0%	0%
Class I	0.26%	0%	0%
Class II	0.52%	0%	0%
Class III	1.82%	0%	0%
Class IV	1.82%	0%	0%
Class V	2.34%	0%	0%
Class VI	2.6%	0%	0%
Class VII	4.42%	0%	0%
Class VIII	4.16%	0.16%	0%
Class IX	2.6%	0%	0%
Class X	20.52%	2.12%	1.12%
Class XI	1.56%	0.33%	0%
Class XII	17.92%	55.14%	5.74%
Certificate	0.78%	7.67%	1.59%
Diploma	1.3%	26.43%	1.12%
Bachelor's Degree	8.05%	7.99%	85.17%
Master's Degree	1.56%	0.16%	5.90%
PhD	0.26%	0%	0.16%
Monastic Education	0.26%	0%	0.32%
NFE	9.09%	0%	0%
Others	1.04%	0%	0%

***Note**. Source (n=385 parents, 613 facilitators, 627 teachers)*

3.1.3 Occupation of Parents

Figure 5 presents the occupation level of the parents. Most parent respondents were housewives/husbands (44.42%), followed by farmers (22.86%). However, corporate employees had the lowest participation rate at only 2.34%.

Figure 5. Occupation of Parents



Note. *Source (n=385 parents)*

3.2 Effectiveness of the DAMTSI Program

3.2.1 Awareness of the DAMTSI Program

To understand the effectiveness of the DAMTSI program, firstly, it is essential to assess the level of awareness of the DAMTSI Program among respondents.

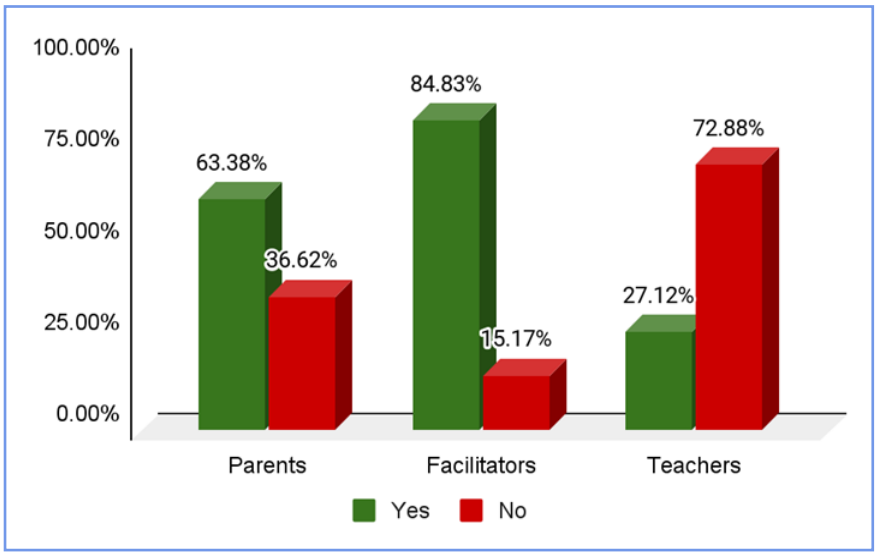
3.2.1.1 Awareness of the DAMTSI Program by Respondents Type

Figure 6 shows that awareness levels vary significantly across the three groups of respondents. Most facilitators (84.83%) know of the DAMTSI program, whereas 15.17% do not. Among parents, 63.38% reported being aware of the DAMTSI program, while 36.62% indicated that they were unaware. This suggests that while most parents are familiar with the program, a significant portion still needs to be made aware.

This concern was expressed by respondents to the interview, where they shared that an essential challenge in the implementation of the DAMTSI Program is the limited involvement of parents, especially in home-based centres where awareness about DAMTSI is low (R4, Pos. 6). In some centres, parents actively engage in activities such as gratitude jars, while in others, facilitators find it challenging to communicate the importance of DAMTSI to parents (R21, Pos. 5; R19, Pos. 8).

Teachers exhibit the lowest level of awareness, with only 27.12% reporting familiarity with the DAMTSI program. The majority of teachers (72.88%) are unaware of the program.

Figure 6. Awareness of the DAMTSI Program



Note. *Source (n=385 parents, 613 facilitators, 627 teachers)*

3.2.1.2 Awareness of the DAMTSI Program by Dzongkhag

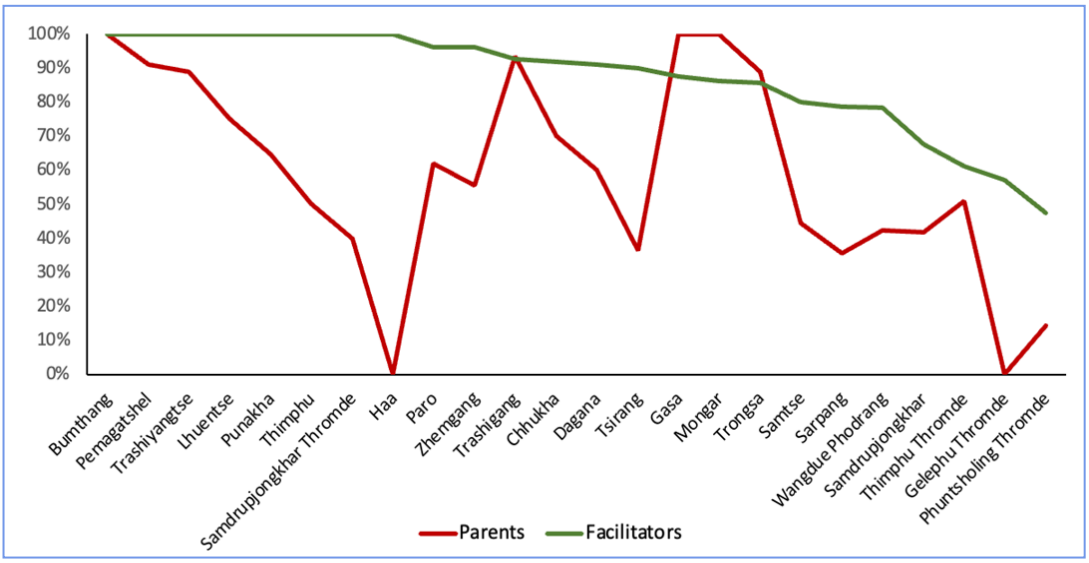
Figure 7 provides insights into the awareness levels of facilitators and parents across Dzongkhags and Thromdes regarding the DAMTSI program. Facilitators in most Dzongkhags demonstrate exceptional awareness, with percentages at or near 100% in many regions, such as Bumthang, Pemagatshel, Trashiyangtse, and Lhuentse. However, a noticeable drop is observed in certain areas, such as Phuntsholing Thromde (47.37%), Gelephu Thromde (57.14%), and Thimphu Thromde (61.11%), indicating potential gaps in facilitator training or communication in these urban areas.

In contrast, parental awareness varies widely, with notable peaks in Bumthang, Gasa, and Mongar at 100%, suggesting successful outreach efforts in these

Dzongkhags. However, parental awareness is alarmingly low in several regions, such as Haa (0%), Gelephu Thromde (0%), and Phuntsholing Thromde (14.29%), which points to challenges in engaging parents in both rural and urban settings. Urban areas, such as Thimphu Thromde (50.91%) and Samdrupjongkhar Thromde (40%), also reflect moderate to low parental awareness, emphasizing the need for targeted interventions.

The disparity between parental and facilitator awareness is particularly striking in Dzongkhags like Haa, where facilitator awareness is 100%, yet parental awareness is nonexistent. This trend is also evident in other Dzongkhags, such as Samdrupjongkhar, where 67.65% of facilitators are aware compared to 41.67% of parents. Such discrepancies highlight the critical need for increased parental engagement and tailored communication strategies to ensure parents are equally informed about the program as key stakeholders in their children's moral and behavioral development.

Figure 7. Awareness of DAMTSI Program by Facilitators by Dzongkhag



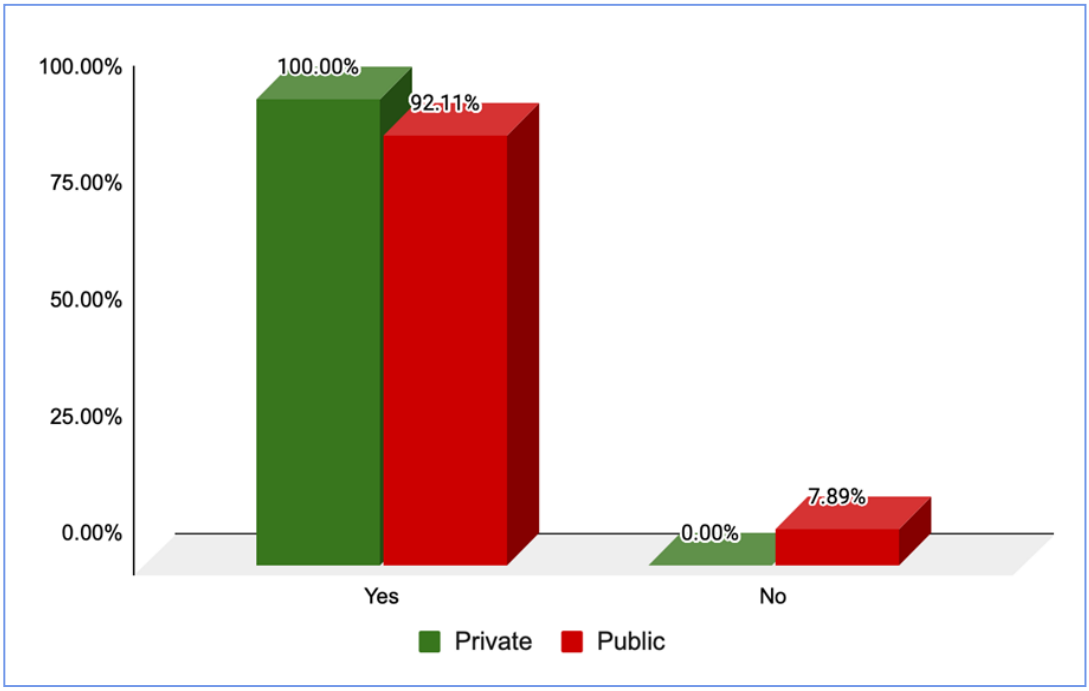
Note. *Source (n=613 facilitators, 385 parents)*

3.2.1.3 Awareness of the DAMTSI Program by ECCD Centre Type

The analysis of awareness levels of the DAMTSI program in ECCD centres reveals significant differences between private and public ECCD centres. An ECCD centre is considered aware if at least one respondent from the centre indicated familiarity with the program.

As shown in **Figure 8**, 100% of private ECCD centres know the program. In contrast, 92.11% of public ECCD centres report awareness of the program, leaving 7.89% of public centres unaware. While this awareness rate is high, the gap compared to private centres highlights potential barriers to reaching some public centres.

Figure 8. Awareness of the DAMTSI Program by ECCD Centre Type

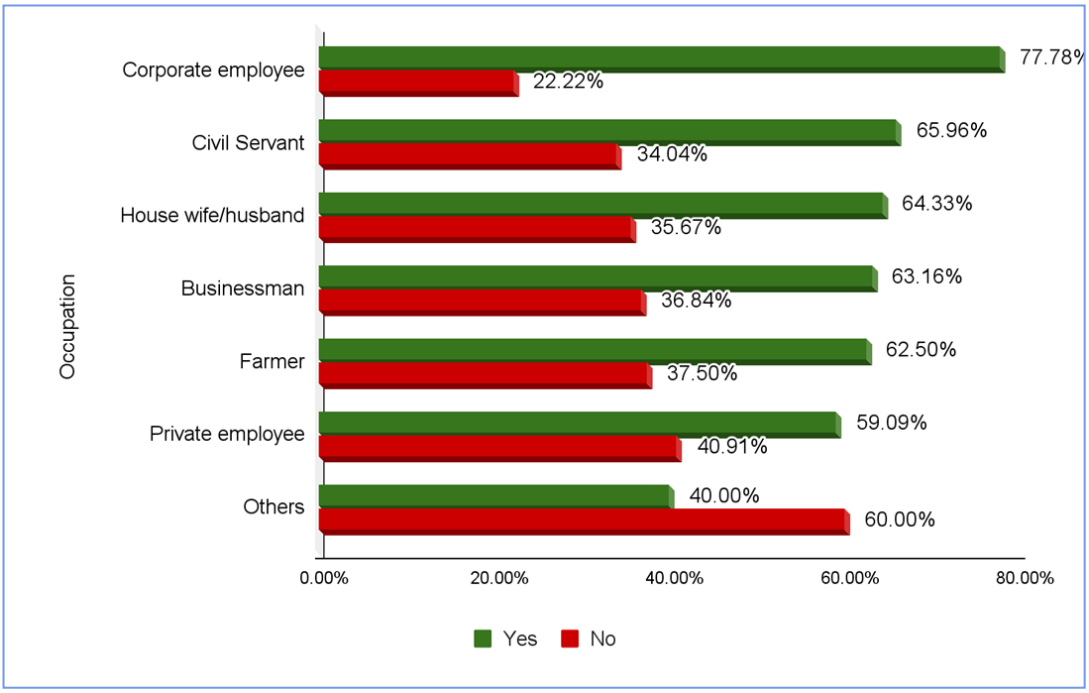


Note. *Source (n=19 Private ECCD centres, 380 Public ECCD centres)*

3.2.1.4 Awareness of the DAMTSI Program by Occupation of Parents

The analysis of awareness about the DAMTSI program among parents across various occupational groups highlights varying levels of familiarity and non-awareness. **Figure 9** shows corporate employees exhibit the highest awareness level at 77.78%, followed by civil servants (65.96%) and housewives/ husbands (64.33%). Businessmen and farmers display similar awareness levels at 63.16% and 62.50%, respectively, while private employees have a slightly lower awareness level at 59.09%. The "others" category, which includes retired civil servants, armed forces personnel and elected public officials, shows an awareness level of 40%. Among private employees, 40.91% of respondents are unfamiliar with the program, followed closely by farmers at 37.50% and businessmen at 36.84%. Housewives/ husbands and civil servants exhibit non-awareness levels at 35.67% and 34.04%, respectively, while corporate employees at 22.22%. The reason why the majority of the parents are aware of the DAMTSI program is that they have learned about the DAMTSI program from various sources.

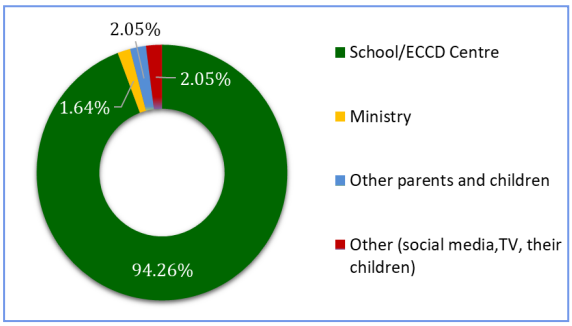
Figure 9. Awareness of the DAMTSI Program Among Parents by Occupation Type



Note. *Source (n=385 parents)*

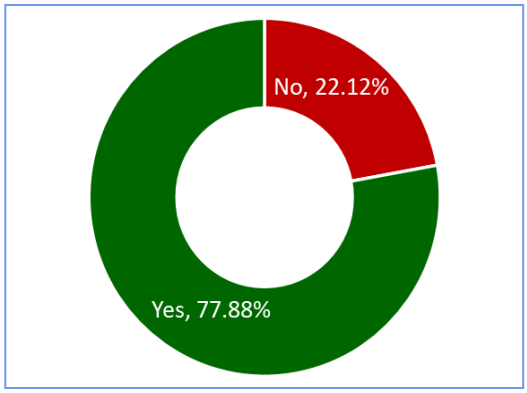
Figure 10 depicts the sources of parents' initial awareness of the DAMTSI Program. Most parents (94.26%) learned about the program from schools or ECCD centres, highlighting these institutions as the most effective channels for program outreach. A small percentage (1.64%) were informed through the MoESD. 2.05% learned about it from other parents and children, and another 2.05% from social media, TV, or their children. This finding underscores the critical role of ECCD centres in parental advocacy and engagement. By prioritizing the training of ECCD facilitators and strategically utilizing these platforms, the DAMTSI program has the potential to enhance its outreach and impact significantly. Such efforts can empower parents to contribute to the program's objectives actively.

Figure 10. *Sources of Initial Awareness About the DAMTSI Program by Parents*



Note*. Source (n=244 parents)*

Figure 11. Proportion of Facilitators Who Received Training on the DAMTSI Program



Note. *Source (n=520 facilitators)*

As for the facilitators, the majority (94.83%) were aware of the DAMTSI program since the majority received training (77.88%), as shown in **Figure 11**. They have been implementing the program for more than a year on average. On the other hand, 22.21% of the facilitators did not receive any training on the program.

The data reveals significant disparities in the distribution of training on the DAMTSI program across different Dzongkhags and Thromdes, as shown in **Table 7.** Punakha (58.82%) and Gasa (57.14%) Dzongkhags have the highest proportion of untrained facilitators among the total responses received from the Dzongkhags. This is followed closely by Thimphu Thromde and Paro, where 48.48% and 40.00% remain untrained. Despite being a central administrative hub, Thimphu Thromde shows a significant gap, with only 51.52% of the total facilitator respondents from Thimphu Thromde untrained. Trongsa and Samdrupjongkhar Thromde stand out, with 100% of facilitators who responded to the survey receiving DAMTSI training, indicating complete coverage of training in these areas.

Table 7. Dzongkhag-wise status of training received by Facilitators on the DAMTSI program

Dzongkhag	Training on DAMTSI program	
	No	Yes
Punakha	58.82%	41.18%
Gasa	57.14%	42.86%
Thimphu Thromde	48.48%	51.52%
Paro	40.00%	60.00%
Pemagatshel	36.84%	63.16%
Phuntsholing Thromde	33.33%	66.67%
Chhukha	32.35%	67.65%
Samtse	30.00%	70.00%
Tsirang	27.78%	72.22%
Sarpang	27.27%	72.73%

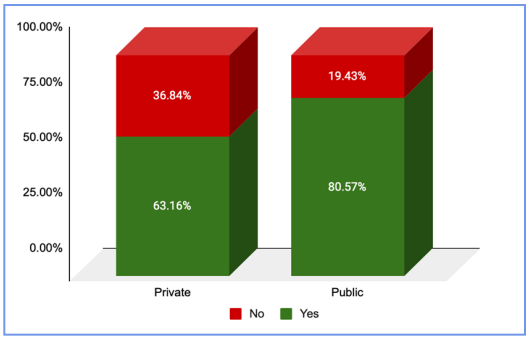
Bumthang	26.32%	73.68%
Dagana	25.00%	75.00%
Thimphu	18.18%	81.82%
Haa	16.67%	83.33%
Wangdue Phodrang	16.67%	83.33%
Mongar	16.07%	83.93%
Trashiyangtse	13.33%	86.67%
Samdrupjongkhar	8.70%	91.30%
Gelephu Thromde	8.33%	91.67%
Trashigang	6.00%	94.00%
Lhuentse	4.35%	95.65%
Zhemgang	4.17%	95.83%
Trongsa	0.00%	100.00%
Samdrupjongkhar Thromde	0.00%	100.00%

Note. *Source (n=520 facilitators)*

Figure 12 reveals a notable disparity in the participation of ECCD centres in the DAMTSI program. 80.57% of public ECCD centres report receiving training on the DAMTSI program, compared to 63.16% of private centres. This suggests that public centres are more likely to have accessed or participated in the program, which could be due to better availability of resources, institutional support, or funding in the public sector. Conversely, the 36.84% of private centres that have not received training highlight a gap that may be linked to logistical, financial, or access-related barriers. Although a significant proportion of public and private centres have benefitted from the training, the 19.43% of public centres and the 36.84% of private centres not receiving training point to areas for improvement.

In comparison, the Ministry of Education and Skills Development (MoESD) and school principals have lower involvement, accounting for 14.32% and 7.41%, respectively. The BECEDA trained 16.30% of the facilitators, particularly those in private ECCD centres, demonstrating a moderate yet meaningful impact. Thus, enhancing collaboration among all stakeholders could further improve the effectiveness and reach of the DAMTSI training programs.

Figure 12. Training received on the DAMTSI program by ECCD Type

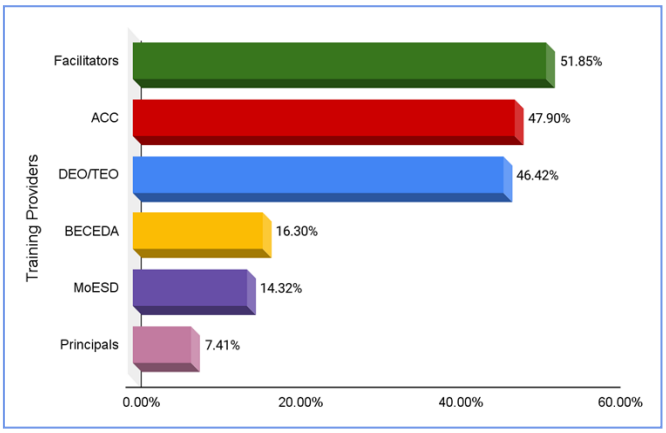


Note. *Source (n=19 Private ECCD centres, 350 Public ECCD centres)*

Facilitators who received training were further asked about their training providers, as depicted in Figure 13. The data reveals that facilitators are pivotal in delivering DAMTSI training, with 51.85% identifying their peers as primary providers. The Education Officers of the Dzongkhags and Thromdes also shared that experienced facilitators often train newcomers, a cost-effective but suboptimal solution due to the lack of standardization (R16, Pos. 14). In addition, the facilitators shared that facilitator colleagues contributed significantly to training, 51.85% of the facilitators. The Anti-Corruption Commission (ACC) and Dzongkhag/ Thromde Education Officers (DEOs/TEOs) also contributed significantly, training 47.90% and 46.42% of facilitators, respectively. Globally, professional development for ECCD facilitators is regarded as a cornerstone for effective program delivery (OECD, 2015). However, budget constraints limit consistent training opportunities, starkly contrasting with countries with strong early childhood education policies. As per UNICEF's budget brief report on the Education Sector, the budget allocated to the education sector grew steadily in nominal terms, rising from Nu. 8.7 billion in 2018-19 to Nu. 15.3 billion in 2021-22, before declining to Nu. 13.3 billion in 2022-23. Conversely, when adjusted for inflation, this reflects a year-on-year decrease of 16.8 percent in real terms. In addition, the smaller institutions like ECCDs were not awarded separate budgets (UNICEF, 2023).

In comparison, the MoESD and school principals have lower involvement, accounting for 14.32% and 7.41%, respectively. The BECEDA trained 16.30% of the facilitators, particularly those in private ECCD centres, demonstrating a moderate yet meaningful impact. Thus, enhancing collaboration among all stakeholders could further improve the effectiveness and reach of the DAMTSI training programs.

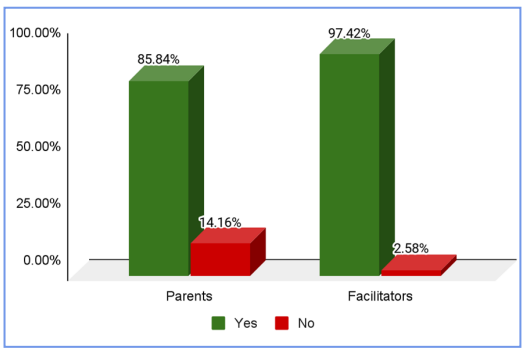
Figure 13. DAMTSI Training Providers



Note. *Source (n=405 facilitators responded to a multi-select question)*

Furthermore, **Figure 14** reveals parents' and facilitators' awareness of the DAMTSI program's objectives. Most parents (85.84%) understand the program's objectives, with only 14.16% reporting a lack of awareness. Facilitators exhibit an even higher awareness of the program's objective (97.42%). However, a small proportion of facilitators were unaware (2.58%).

Figure 14. Awareness of the DAMTSI Program's Objective

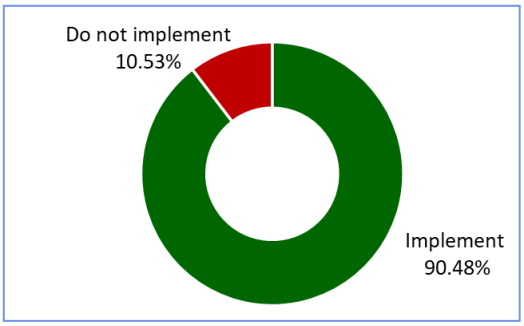


***Note**: Source (n=385 parents, 504 facilitators)*

3.2.2 Implementations of DAMTSI Activities at ECCD Centre

From the responses provided by facilitators representing 399 ECCD centres, 361 centres (90.48%) reported implementing the DAMTSI program, while 38 centres (10.53%) did not, as presented in **Figure 15**. For this study, a centre was classified as implementing the program if at least one facilitator from that centre confirmed its implementation. The high implementation rate of 90.48% indicates the program's extensive reach within ECCD centres. However, the 10.53% of centres where the program is not implemented underscores critical gaps requiring further interventions.

Figure 15. Implementation of DAMTSI program at ECCD Centres



***Note.** Source (n=399 ECCD Centres)*

The interviews reveal that approximately one-third of respondents are unaware of any policy mandating implementing the DAMTSI program in ECCD centres. While some respondents believe the program is required by policy (R16, Pos. 6; R19, Pos. 8), others suggest that authorities have neither explicitly mandated it nor ensured follow-up (R23, Pos. 12). This inconsistency highlights gaps in communication and oversight, leading to varying levels of implementation fidelity. Although most stakeholders recognize the DAMTSI program as an essential part of the ECCD curriculum, the absence of clear policy documentation creates uncertainty regarding its mandatory status (R23, Pos. 5; R8, Pos. 5). As a result, this lack of clarity has contributed to inconsistent implementation, reducing the program's overall impact.

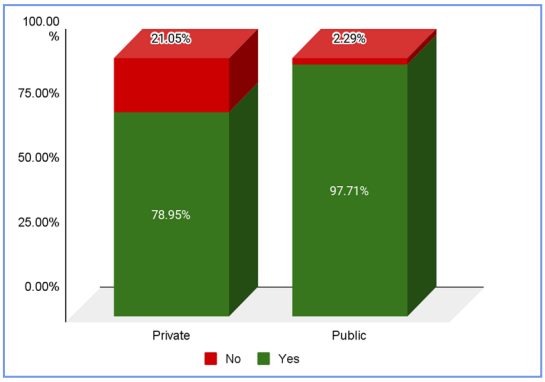
Further, as shown in **Figure 16**, implementing the DAMTSI program in ECCD centres demonstrates notable disparities between public and private institutions. The data reveals that

97.71% of public ECCD centres have adopted the program, indicating near-universal implementation. In contrast, 78.95% of private ECCD centres have implemented the program, reflecting commendable but comparatively lower adoption, with 21.05% reporting non-implementation.

Parents are one of the key stakeholders in the DAMTSI program implemnetation. However, the data reveals some instances of lack of parental cooperation and understanding of the program's goals. One respondent noted, "Parents are hesitant to take home activity cards, fearing potential damage" (R1, Pos. 14). Such reluctance highlights a need for awareness campaigns to emphasize the importance of home-based activities in fostering child development. Furthermore, uneducated parents expressed dissatisfaction, believing "their child has not learned anything" due to their lack of understanding of ECCD goals (R11, Pos. 20). These findings align with Bronfenbrenner's ecological systems theory, which underscores the significance of parental involvement in a child's microsystem for effective learning outcomes (Bronfenbrenner, 1979).

On the whole, parents' implementation of DAMTSI activities at home reveals notable participation patterns across various occupational groups, as shown in **Figure 12**. Housewives/husbands show substantial engagement, with 38.93% actively conducting activities. Farmers, the second-largest group, demonstrate strong involvement, with 20.90% participating and only 1.64% disengaged. Civil servants also show high participation (11.07%), although 1.64% do not engage. Other occupational groups show varied levels of engagement.

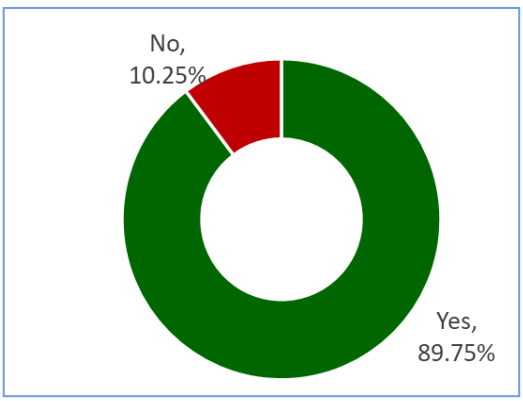
Figure 16. Implementation of DAMTSI Program by ECCD Type



Note. *Source (n=19 Private ECCD centres, 350 Public ECCD centres)*

Figure 17 illustrates the extent to which parents implement DAMTSI activities with children at home. The data reveals a high implementation rate, with 89.75% of parents reporting implementing the activities. However, some parents (10.25%) do not implement the program. The reasons cited include time constraints faced by parents due to work commitments.

Figure 17. Implementation of DAMTSI Activities by Parents



Note. *Source (n=244 parents)*

The qualitative analysis also corresponds to that of the quantitative data. The DAMTSI program has been in operation for nearly three years, with most DEOs/ TEOs confirming its implementation across ECCD centres (R1, Pos. 6; R5, Pos. 8-9). The program is described as mandatory under the ECCD curriculum guidelines, ensuring a uniform approach to moral education in young learners (R8, Pos. 4-5; R16, Pos. 6). Facilitators incorporate DAMTSI activities into their daily and weekly plans, adapting them to themes such as "vegetables" or "hospital" to teach responsibility and fairness. The respondents say, "… during the special activity that is held once a week, the facilitator uses the DAMTSI activities wherever possible. For example, if the theme is vegetables during a week, the facilitator has to use relevant examples. If the theme is 'Hospital,' the facilitator teaches staying in the queue, taking turns, etc." (R5, Pos.6). DAMTSI has become a routine activity in some centres, including innovative practices like using gratitude jars and songs to reinforce values (R21, Pos. 5).

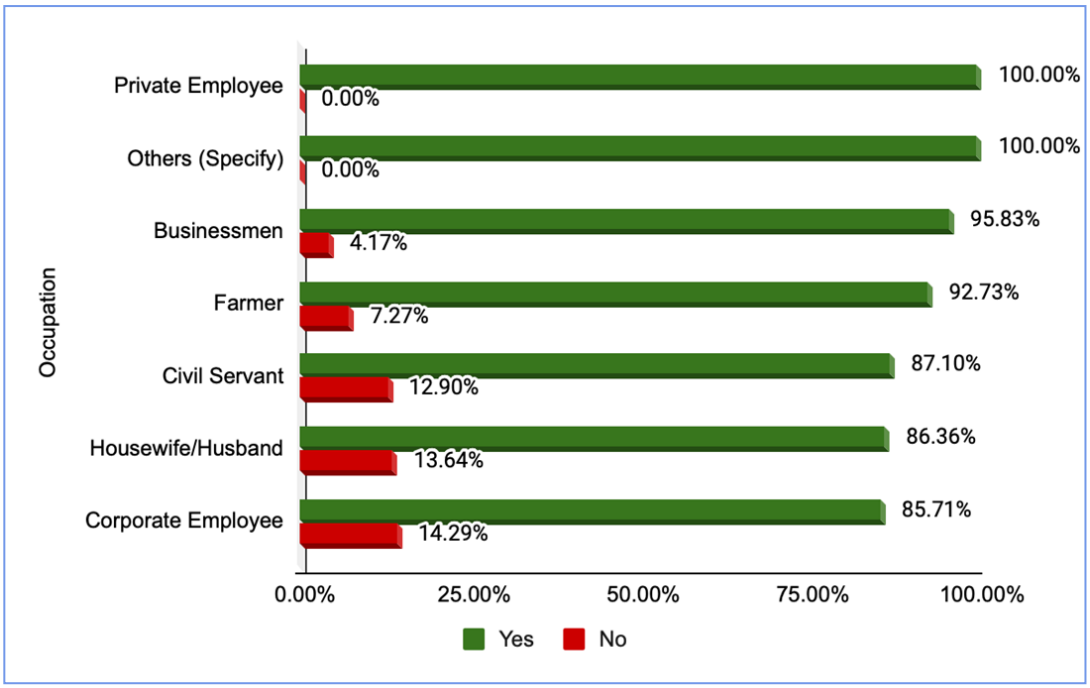
However, the findings regarding the implementation of the DAMTSI program across Dzongkhags and Thromdes tell a different story. As reported by the facilitators, Samdrupjongkhar (17.39%), Phuntsholing Thromde, Wangdue Phodrang (11.11% each), and Thimphu Thromde (9.09%) were identified as the top four Dzongkhags or Thromdes with the highest rates of non-implementation (refer to ***Annexure 1***).

Parents are one of the key stakeholders in the implementation of the DAMTSI program. However, the data reveals some lack of parental cooperation and understanding of the program's goals. One respondent noted, "Parents are hesitant to take home activity cards, fearing potential damage" (R1, Pos. 14). Such reluctance highlights a need for awareness campaigns to emphasize the importance of home-based activities in fostering child development. Furthermore, uneducated parents expressed dissatisfaction, believing "their child has not learned anything" due to their lack of understanding of ECCD goals (R11, Pos. 20). These findings align with Bronfenbrenner's ecological systems theory, which underscores the significance of parental involvement in a child's microsystem for effective learning outcomes (Bronfenbrenner, 1979).

Parents' implementation of DAMTSI activities at home reveals notable participation patterns across various occupational groups, as shown in **Figure 18**. Private employees and individuals categorized under Others (retired civil servants, armed force personnel, and elected public officials) show full implementation at 100%, suggesting strong engagement or effective outreach within these groups. Businessmen and farmers also demonstrate high implementation rates, at 95.83% and 92.73%, respectively, indicating that these occupations actively participate in DAMTSI activities.

In contrast, civil servants, housewives/husbands, and corporate employees exhibit comparatively lower implementation rates, at 87.10%, 86.36%, and 85.71%, respectively. While most occupations implement DAMTSI activities, the variations suggest targeted interventions might be needed to address specific barriers, particularly among corporate employees and housewives/husbands, to ensure equitable program participation.

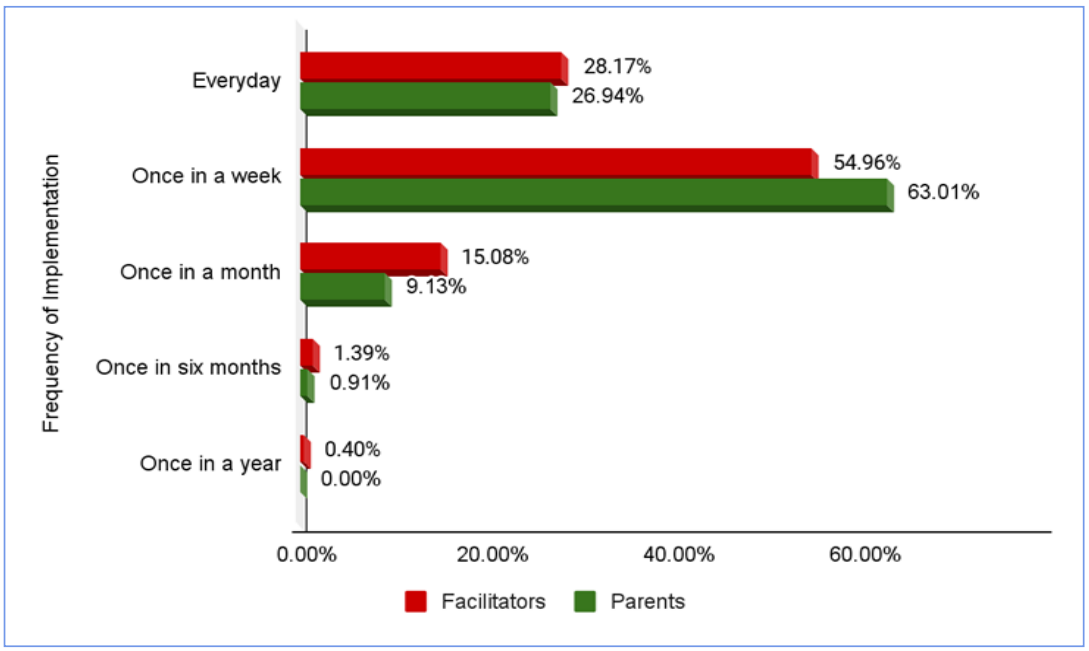
Figure 18. Implementation of DAMTSI Activities by Parents' Occupation



Note. *Source (n=244 parents)*

Figure 19 illustrates the frequency of implementation of DAMTSI activities at three intervals: daily, weekly, and monthly. The findings show that facilitators and parents regularly implement DAMTSI activities. Facilitators most frequently implement it once a week (54.96%), followed by every day (28.17%). A few facilitators implement it once a month (15.08%) or less frequently. On the other hand, parents have a slightly higher frequency of weekly implementation (63.01%), with 26.94% using it daily. Fewer parents carry out the activities once a month (9.13%). Parents and facilitators show strong engagement, especially weekly or daily.

Figure 19. Frequency of DAMTSI Activities Implementation

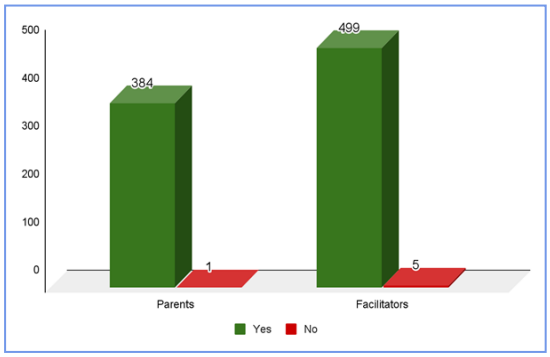


Note. *(n=219 parents, 520 facilitators)*

3.2.3 Behavioral Changes in Children

As shown in **Figure 20**, parents and facilitators report significant improvements in children's behavior following the implementation of the DAMTSI program. Of the total, 384 parents and 499 facilitators observed positive changes in children. However, one parent and five facilitators did not notice any improvement. These findings strongly suggest that most parents and facilitators perceived positive changes in children's behavior. This overwhelming agreement may indicate the effectiveness of the DAMTSI program in fostering behavioral improvements among children.

Figure 20. Observed Improvement in Children's Behavior



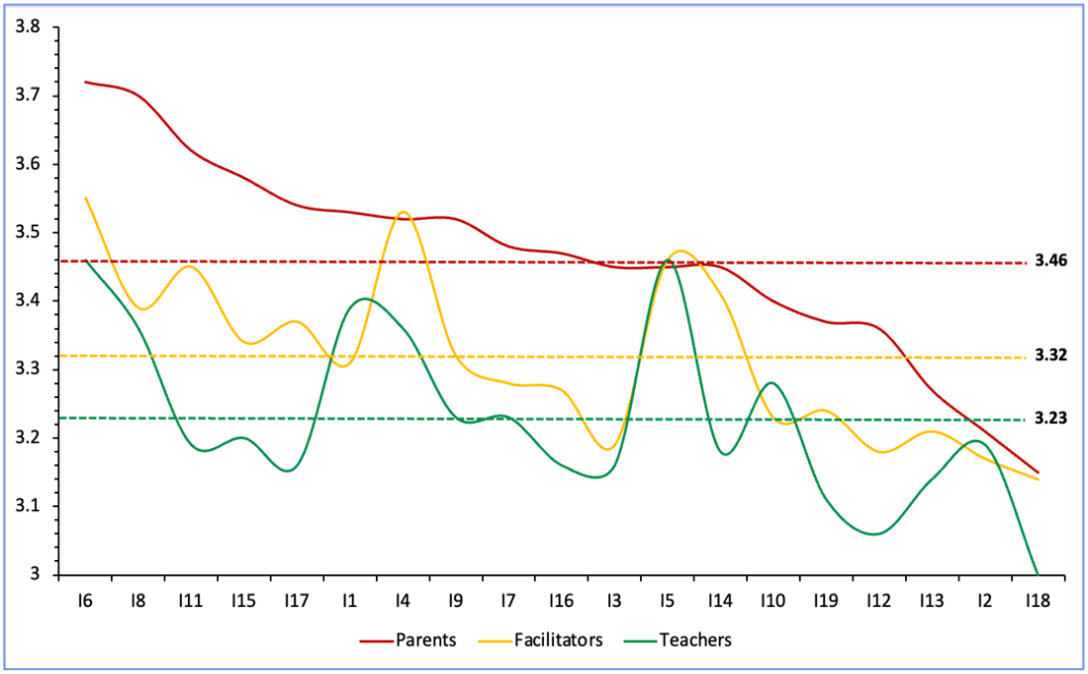
Note*. Source (n=385 parents, n=504 facilitators)*

From parents' perspective, the changes in children after attending ECCD and learning about the DAMTSI program are remarkable and multifaceted ***(Refer Annexure 2)***.

As shown in **Figure 21**, the behavioral change score from parents is 3.46, which signifies a moderately high change in children's behavior. Parents have observed a notable improvement in practices like **I6** (asking for permission before taking things, 3.72) and **I8** (identifying and following school rules, 3.70), which reflect enhanced responsibility and honesty. Skills such as **I11** (taking care of personal belongings and school resources, 3.62), **I15** (staying in queues, 3.58), and **I17** (treating everyone equally, 3.54) highlight the growing awareness of fairness and responsibility. Honest behaviors, like **I3** (admitting mistakes, 3.45) and **I4** (returning lost items, 3.52), suggest children internalize honesty and fairness values.

Furthermore, children are becoming more accountable for their actions, as shown by **I13** (being answerable for one's words and actions, 3.27) and **I2** (keeping promises, 3.21). This demonstrates a developing sense of responsibility. These changes reflect not only the success of the DAMTSI program in instilling moral values but also a foundational preparation for children to thrive in school and society.

Figure 21. Behavior Changes and Difference in Terms of Scores



Note. *Source (n=384 parents, 499 facilitators, 542 teachers)*

As depicted in **Figure 21**, the analysis of facilitators' observations reveals moderately low behavioral changes in ECCD children. Areas showing the most substantial improvement include **I6** (asking permission before taking things and taking leave, 3.55) and **I4** (returning lost-and-found items to the school/ owner honestly and promptly, 3.53), suggesting that children are becoming more responsible and honest. However, some behaviors show moderately low improvements, such as **I3** (admitting mistakes honestly, 3.19), **I12** (accepting one's mistakes, 3.18), and **I18** (Making consultative decisions, 3.14). The overall behavioral change score is 3.39 ***(refer Annexure 2)***, indicating a moderately low change in children's behavior.

The behavioral difference score between children who attended ECCD programs and those who did not, as assessed by teachers in pre-primary classes is 3.23 **(see Figure 21)**. While this score reflects a moderately low behavioral difference between children who attended ECCD programs and those who did not, children from ECCD backgrounds generally exhibit a higher aptitude for behavioral skills such as asking permission, following school rules and taking care of personal belongings. This is evident from the mean score of 3.46 for **I6** (asking permission and taking leave) and 3.36 for **I8** (identifying and following school rules). Their ability to demonstrate honesty, such as reporting misbehaviors **(I5)** and returning lost items promptly **(I4)**, is also relatively strong, with both indicators scoring a mean of 3.46 and 3.36, respectively. Teachers find that ECCD-trained children are more likely to internalize essential habits of fairness, honesty, and responsibility. These insights underline the significance of ECCD programs, especially the DAMTSI Program, in fostering foundational behavioral skills critical for success in early education.

3.2.3.1 Difference in Awareness and Implementation of the DAMTSI Program on Behavioral Change Score

As shown in **Tables 8** and **9**, the analysis of the two-sample t-test results reveals that neither parents' awareness nor the implementation of DAMTSI activities significantly influences their perceptions of behavioral change in their children. The results from the two-sample t-test (Table 6) failed to reject the null hypothesis for both the awareness and implementation groups. In both cases, the p-values are 0.1091 for awareness and 0.0941 for implementation. These imply that at a 95% confidence level, neither awareness nor implementation of DAMTSI activities significantly influences parents' perceptions of their children's behavioral change. Therefore, it is likely that other factors may be affecting these perceptions.

Table 8. Hypothesis Testing

Hypothesis	Result
H1: Awareness on DAMTSI program does not influence parents' perception on their children's behaviour change	Fail to reject Null Hypothesis
H2: Implementing DAMTSI Activity does not influence parents' perception on their children's behaviour change	Fail to reject Null Hypothesis

Note. *(95% confidence level, 5% margin of error)*

Table 9. Two-sample t-test on awareness and implementation of DAMTSI program and behavioral change

	Awareness on DAMTSI Program by parents	Implementation of DAMTSI Activities by Parents
	$H0: mean\ (Yes) - mean\ (no) = 0$ $H1: mean\ (Yes) - mean\ (no) \neq 0$	$H0: mean\ (Yes) - mean\ (no) = 0$ $H1: mean\ (Yes) - mean\ (no) \neq 0$
Behavioral change	$Pr\ (\|T\| > \|t\| == .1091$ Fail to reject Null Hypothesis	$Pr\ (\|T\| > \|t\| == .0941$ Fail to reject Null Hypothesis

Note. *<.05= Reject Null Hypothesis*

3.2.4 Effectiveness of DAMTSI Program in Instilling Values

Table 10 explores the relationship between pre-primary teachers' agreement levels regarding whether early childhood education (ECE) programs develop a child's understanding and practice of values. The majority strongly agree with both statements, reflecting a broad consensus on the importance of ECE programs in nurturing values. Of those who strongly agree that ECE programs enhance understanding, 87.27% also strongly agree that they foster practice, while 12.73% agree. Similarly, among respondents who agree with the understanding aspect, 85.71% also agree with the practice dimension, with only a small percentage disagreeing. The disagreement is minimal, with only two respondents across all categories expressing skepticism. The findings underscore a strong positive perception of ECE programs' dual role in promoting the understanding and practice of values, with negligible dissent.

Multiple respondents of the interview (R18, R20) also reported that children who transitioned from ECCD centres to formal schooling exhibited better discipline, responsibility, and manners

compared to those without ECCD exposure, suggesting that the DAMTSI program effectively prepares children for future academic and social success.

Table 10. Perceptions on the Role of Early Childhood Education Programs in Developing Children's Understanding and Practice of Values

Early childhood education programs develop a child's understanding of values	Early childhood education programs develop a child's practice of values		
	Disagree	*Agree*	*Strongly agree*
Disagree	100.00%	0.00%	0.00%
Agree	1.43%	85.71%	12.86%
Strongly agree	0.00%	12.73%	87.27%

***Note**. Source (n=542 teachers)*

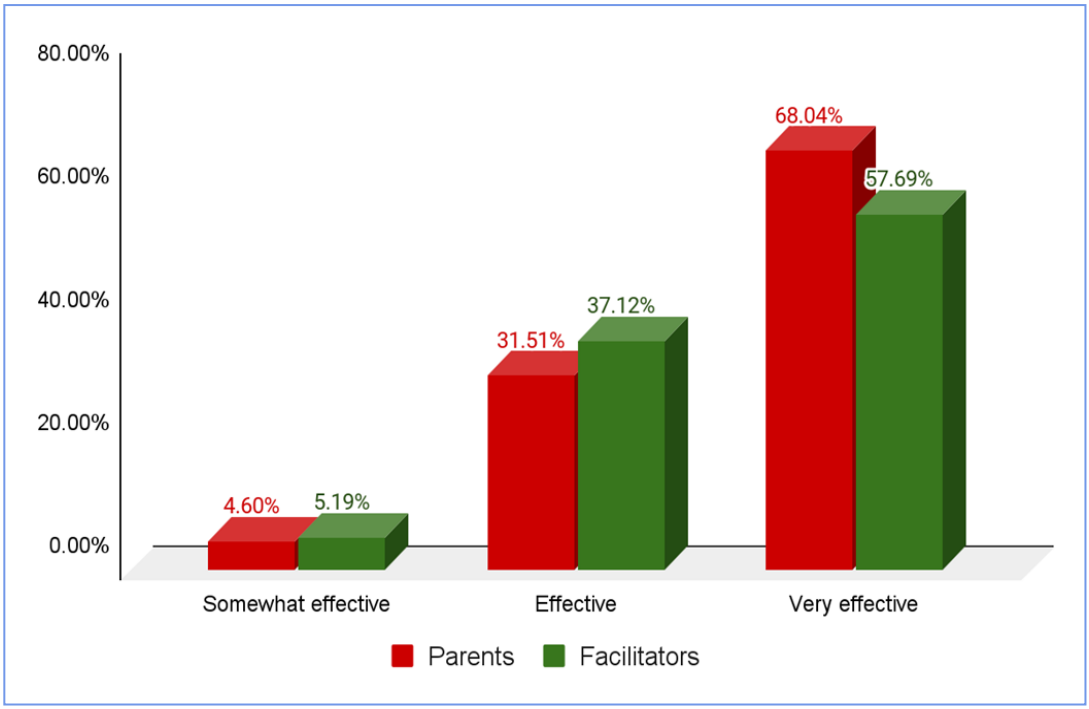
In a similar line, the parents and facilitators were asked about the effectiveness of the DAMTSI program in instilling values in children, as depicted in **Figure 22**. The results have mainly been positive, according to both parents and facilitators. A significant 68.04% of parents and 57.69% of facilitators believe the program to be "very effective" in imparting values to children. Additionally, 31.51% of parents and 37.12% of facilitators find the program "effective," indicating that while acknowledging its positive impact, they may see room for improvement or refinement. Only a small proportion of respondents, 0.46% of parents and 5.19% of facilitators consider the program "somewhat effective," highlighting skepticism regarding its overall success. The data suggests that the DAMTSI program is viewed favorably, with a majority agreeing that it effectively instills essential values in children.

Respondents from the interview also widely recognized the effectiveness of the DAMTSI program in fostering core values among children. For instance, R2 emphasized that the program "shines a brighter light on future citizens," highlighting its role in promoting honesty, fairness, and responsibility. Similarly, R16 observed positive behavioral changes in children, such as proper waste disposal and organizing toys, indicating the program's success in instilling responsibility through structured activities. These findings are consistent with Early Childhood Education (ECE) literature, which underscores the importance of value-based education in nurturing moral development and civic responsibility (Kohlberg, 1981).

The program's impact extends beyond the children, influencing parents and facilitators. R21 noted that children teach their parents values like organization and responsibility, pointing to the broader societal implications of the program (Pos. 5). Facilitators also benefit from the program's structure, with R10 noting that the activity book simplifies the planning and execution of value-based activities. Additionally,

several respondents highlighted that the DAMTSI program aligns well with children's developmental stages. R19 observed that the content is appropriate for young learners (Pos. 12). At the same time, R7 noted its integration with both psychomotor and cognitive skill development (Pos. 10). These observations align with Vygotsky's (1978) theory of the zone of proximal development, which advocates for age-appropriate activities to enhance child development.

Figure 22. Effectiveness of the DAMTSI Program in Instilling Values in Children



Note. *Source (n=219 parents, 520 facilitators)*

3.2.5 Relation Between Satisfaction Levels and Willingness to Recommend the DAMTSI Program

Table 9 illustrates parents' satisfaction with the DAMTSI Program and their likelihood of recommending it to others. Among those who reported being "Satisfied," 100% indicated they would recommend the program to others. Similarly, among those who were "Very satisfied," the vast majority (98.66%) would recommend it, with only 1.34% choosing not to. These findings suggest a relationship between satisfaction levels and willingness to advocate for the program, highlighting its perceived value and impact.

Table 11. Relation Between Satisfaction Levels and Willingness to Recommend the DAMTSI Program

Satisfaction with the DAMTSI Program	***Recommend the DAMTSI Program to others***	
	No	*Yes*
Satisfied	0.00%	100%
Very satisfied	1.34%	98.66%

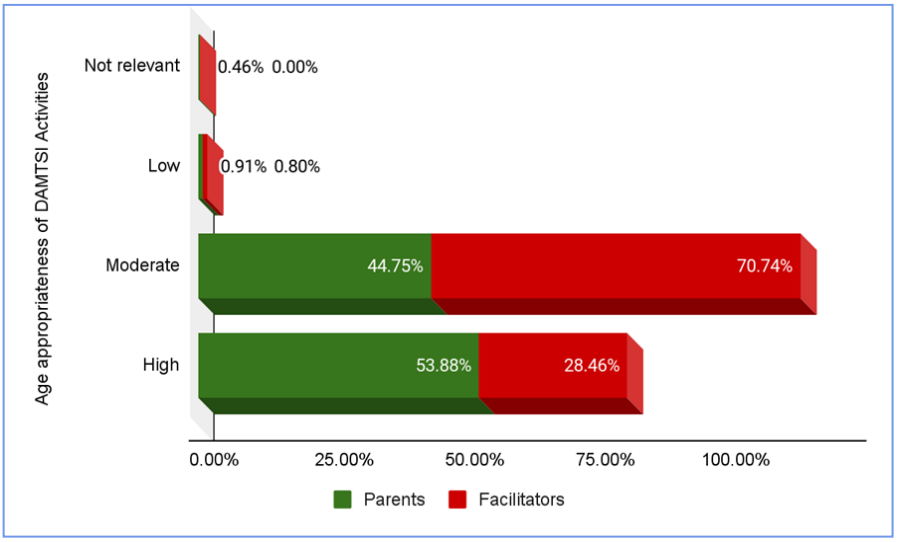
Note. *Source (n=219 parents)*

3.3 Validation of the DAMTSI Program Content

3.3.1 Age Appropriateness of Contents of DAMTSI Program

Figure 23 presents the perceptions of parents and facilitators regarding the age appropriateness of the DAMTSI Activity Book contents. Among parents, a significant majority rated the contents as either "Moderate" (44.75%) or "High" (53.88%). This indicates overall satisfaction with the material's relevance to the intended age group. Similarly, facilitators predominantly rated the contents as "Moderate" (70.74%), though a smaller proportion (28.46%) assessed it as "High." Few respondents found the content "Not relevant" or "Low" appropriateness. The results suggest that while the activity book is generally well-received by both groups, facilitators appear more inclined to consider the content moderately appropriate rather than highly appropriate, possibly reflecting differences in expectations or firsthand experiences with implementation.

Figure 23. Age appropriateness of DAMTSI Activity Book

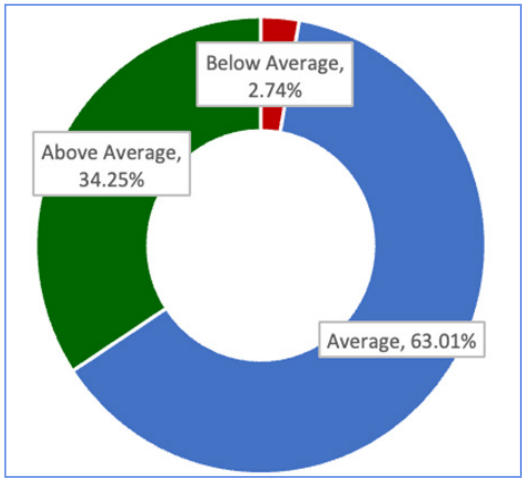


Note. *Source (n=219 parents, 499 facilitators))*

3.3.2. *Level of Understanding of Children about DAMTSI Activities*

Figure 24 shows parents' perceptions of their children's understanding level (below average, average, and above average) of DAMTSI activities. 63.01% of parents shared that their children's understanding level is average. Likewise, 34.25% of the respondents view their understanding level as above average. However, a significantly small portion of the respondents, 2.74% of parents, view their understanding level below average.

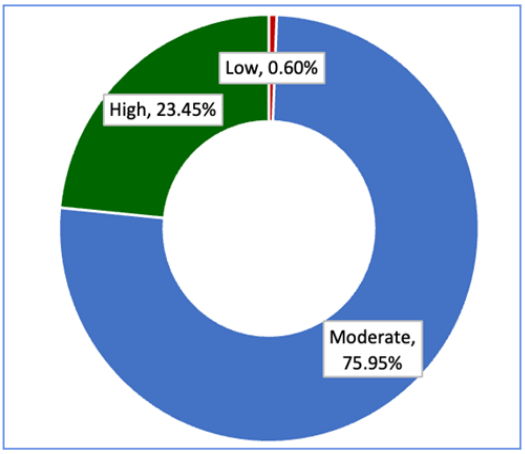
Figure 24. Perception of parents on understanding level of DAMTSI activities by children



Note. *Source (n=219 parents)*

Similarly, as shown in **Figure 25**, facilitators assessed understanding relevancy using low, moderate, and high levels. Of the total, 75.95% of facilitators rated it as moderate, and 23.45% rated it as high. Only 0.60% rated it as low relevance to the understanding level of the children.

Figure 25. Perception of facilitators on the relevance of DAMTSI activities to different understanding levels of children



Note. *Source (n=499 facilitators)*

3.3.3 *Level of interest and engagement of children in DAMTSI Activities*

Table 12 shows the relationship between the level of interest and engagement of ECCD children in DAMTSI activities as perceived by the facilitators. Children with no interest in the activities (100%) were still engaged moderately, suggesting that even without initial interest, the activities themselves may possess qualities that sustain a basic level of participation. Among those with low interest, a majority (66.67%) exhibited moderate engagement, and a smaller group (33.33%) showed low engagement. This suggests that low interest can still result in some involvement, though it may limit overall enthusiasm. For children with moderate interest, most (88.42%) were moderately engaged, with a smaller proportion (10.93%) demonstrating high

engagement. This highlights that moderate interest fosters steady participation and leads to more intense involvement. Children with high interest showed the highest levels of engagement, with 84.78% being highly engaged, reinforcing the idea that greater interest directly correlates with higher levels of participation.

Table 12. Relationship between interest levels and engagement levels of ECCD children in DAMTSI activities

Interest level	Engagement Level			
	None	*Low*	*Moderate*	*High*
None	0	0	100%	0
Low	0	33.33%	66.67%	0
Moderate	0.32%	0.32%	88.42%	10.93%
High	0	0	15.22%	84.78%

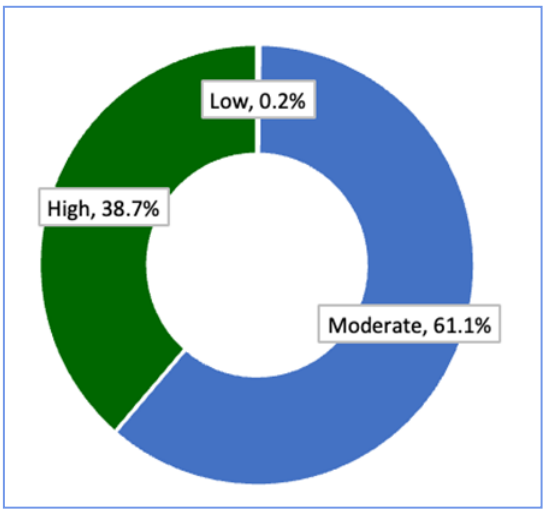
***Note**: Source (n=499 facilitators)*

These findings suggest that interest is a significant determinant of engagement in DAMTSI activities. Higher interest levels lead to more active and enthusiastic participation, emphasizing the importance of designing activities that capture and sustain children's interest for optimal engagement.

3.3.4 Appropriateness of DAMTSI Activity Book compared to other ECCD Materials

As shown in **Figure 26**, facilitators were asked to compare the DAMTSI Activity Book's appropriateness to other ECCD materials. The DAMTSI Activity Book was generally perceived positively, with most respondents rating it as either moderate or high. The majority, 61.12%, rated it as moderate, indicating it is generally effective, while 38.68% rated it as high, showing strong satisfaction with its quality. Only 0.20% rated it as low, suggesting minimal dissatisfaction and potential for improvement.

Figure 26. Appropriateness of DAMTSI Activity Book in comparison to other ECCD Materials



***Note**. Source (n=499 facilitators)*

3.3.5 Practicality and Adequacy of DAMTSI Activities

Regarding the practicality of the DAMTSI materials, all parents (100%) found them practical, and 92.88% of facilitators agreed, as shown in **Table 13.** However, 7.12% of facilitators expressed concerns. Some facilitators pointed out that outdoor activities were challenging in urban areas due to limited outdoor space. However, they noted that they often customize the activities to meet specific needs and requirements. Despite these challenges, both groups expressed a generally high level of satisfaction with the materials.

Regarding the adequacy of the activities, 90% of parents and 94.42% of facilitators considered them adequate, demonstrating a strong endorsement overall. However, 10.00% of parents and 5.58% of facilitators felt the activities were insufficient. Most facilitators recommended adding more activities, such as rhymes, songs, traditional games, and folk stories, to the DAMTSI Activity Book. They also suggested making it more inclusive by incorporating activities for children with special education needs.

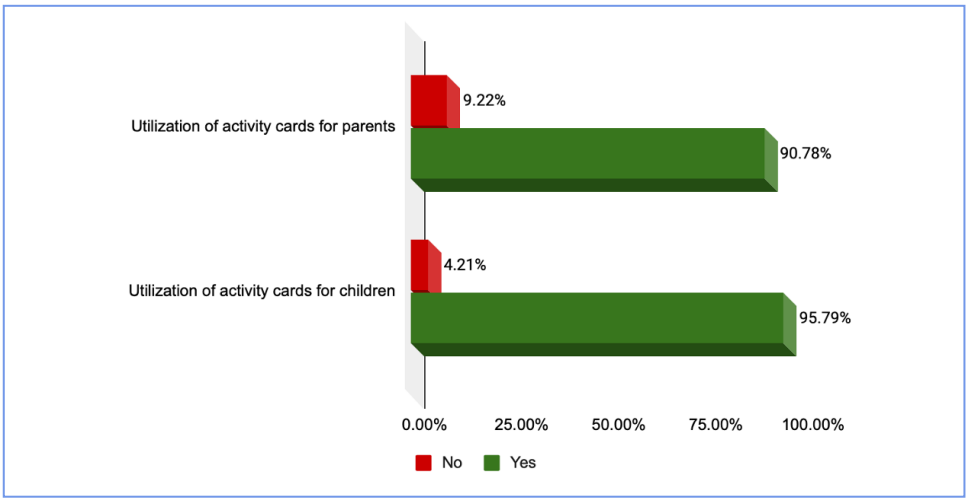
Table 13. Practicality and Adequacy of DAMTSI Activities

Survey Items	Yes		No	
	Parents	*Facilitators*	*Parents*	*Facilitators*
Practicality of Materials Provided in the DAMTSI Program	100%	92.88%	0%	7.12%
Adequacy of DAMTSI Activities	90%	94.42%	10.00%	5.58%

***Note**. Source (n=499 facilitators, 219 parents)*

Different activity cards are provided to facilitators to implement the DAMTSI program and conduct the DAMTSI activities. The facilitators were asked if they used the activity cards for children and parents to conduct the activities. As depicted in **Figure 27,** 95.79% of facilitators reported using the activity cards to conduct children's activities, while only 4.21% indicated they did not. This high percentage reflects the activity cards' widespread adoption and practical utility in facilitating activities for children. Similarly, 90.78%% of facilitators confirmed using activity cards to assist parents in conducting activities, with 9.22% reporting non-utilization. While still positive, the slightly lower usage rate is mainly because the centres do not have enough activity cards to distribute to the parents. The facilitator suggested providing them with enough activity cards to ensure smooth implementation of the activities.

Figure 27. Utilization of activity cards by facilitators



Note. *Source (n=499 facilitators)*

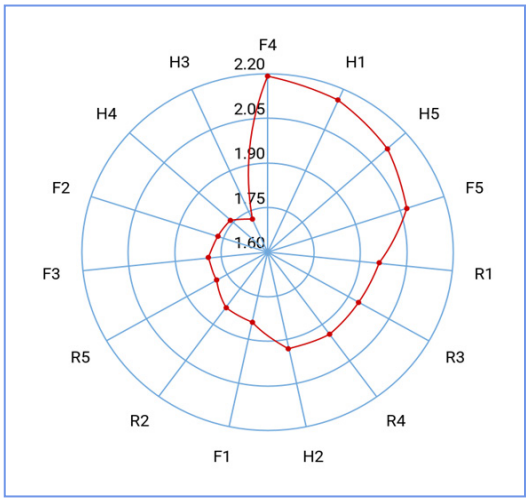
3.4 Challenges in Implementing DAMTSI Activities

3.4.1 Level of challenge in implementing DAMTSI activities

The DAMTSI Activity Book includes 15 activities designed for parents to be carried out with children at home and 42 activities intended for facilitators to be carried out at ECCD centres under the 19 indicators of DAMTSI ***(refer Annexure 6)***. Both parents and facilitators were asked to evaluate the difficulty level for each activity on a scale from one to four, with one representing no challenge and four indicating a high level of challenge.

The findings reveal varying levels of difficulty parents face, as shown in **Figure 28** ***(also refer Annexure 3)***, as indicated by mean challenge scores ranging from 1.72 to 2.19. Activities such as **R1** (Home Rules, 84.84%) and **R2** (Sorting of Items, 83.61%) are the most widely implemented, with low mean challenge scores suggesting they are both practical and well-received. On the other hand, activities like **F5** (Yarab Choeba, 42.21%) and **F3** (Let's Be Equal!, 52.46%) have lower participation rates, possibly due to their moderate challenge scores. Meanwhile, **F4** (Let's Make a Collage, 2.19) and **H1** (Norzip Penjor, 2.16) present the highest levels of difficulty yet remain moderately popular among parents (61.07% and 71.31%, respectively), indicating their importance despite challenges. More straightforward activities, such as **F2** (Ku Ku, 80.33%) and **H4** (Ask Permission, 62.70%), are widely practiced and have the lowest challenge scores (1.77 and 1.76, respectively), making them easy to integrate into daily routines. The findings highlight the need to support parents in implementing high-challenge activities while leveraging the success of more straightforward, broadly accepted ones.

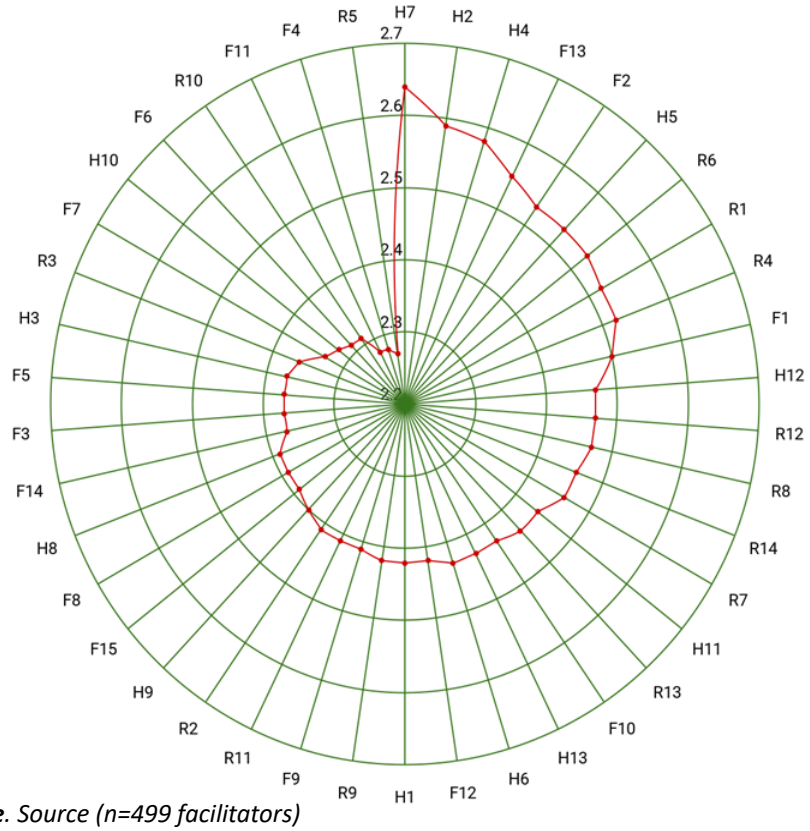
Figure 28. Level of challenge in implementing DAMTSI Activities by Parents



Note. *Source (n=219 parents)*

As for the facilitators, as shown in **Figure 29** ***(also refer Annexure 4)***, overall mean scores for most activities fall between 2.2 and 2.7, indicating that facilitators generally experience a low to moderate challenge in implementing these activities. For instance, activities like **R5** (Sorting of Items, 2.27), **F4** (In and Out, 2.28), and **F11** (Building Tower, 2.28) have mean scores close to 2.3, suggesting that facilitators find these activities reasonably easy to implement, with little to no challenges. Similarly, **F7** (Musical Run, 2.33) and **H3** (Jumping the Line, 2.37) have mean scores indicating low to moderate challenges, with high implementation percentages of 98.60% and 98.20%, respectively. These activities are well-executed with minimal difficulty for facilitators.

Figure 29. Level of challenge in implementing DAMTSI Activities by facilitators



Note. *Source (n=499 facilitators)*

Additionally, the **F1 (**Memory Game, 2.5), **R1** (Follow the Rules, 2.52), and **H5** (Keep Your Promise, and Earn a Reward! 2.53) exhibit slightly higher mean scores. The implementation rates remain high, ranging from 97.60% to 99.00%. This suggests that while these activities present a slightly higher challenge to facilitators, they are still widely implemented and effective.

Meanwhile, **H7** (Creating a Storyboard, 2.64), **H2** (Whispering Game, 2.59) and **H4 (**Keeping Promises, 2.558) present the highest levels of difficulty yet remain moderately popular among parents (98.40% to 99.00%), indicating their importance despite challenges.

Overall, the data reveals that facilitators successfully implement the DAMTSI activities with minimal challenges, as evidenced by the high implementation percentages, generally over 96%. The mean scores mostly fall within the "low challenge" range, highlighting that facilitators face manageable difficulties. Only a few activities (e.g., Creating a Storyboard, 2.64) present more noticeable challenges, though they are still widely implemented.

Additionally, as identified by parents and facilitators, the top three challenging activities were analyzed to examine their correlation with identified variables, as shown in **Table 14**.

Table 14. Group Variables for Correlational Analysis

Variable Name	Question/Statement
Relevant_Age	Relevancy of DAMTSI activities with the age of children
Relevant_understanding	Relevancy of activities with the understanding level of children
Activity_frequency	Frequency of carried out DAMTSI activities
Interest_level	Interest level of children in DAMTSI activities
Engagement_level	Engagement level of children in DAMTSI activities

The correlation analysis between various factors and the difficulty as perceived by the parents on the three activities, Let's Make Collage, Norzip Penjor, and Gratitude Jar, indicates weak relationships across all variables, as depicted in **Table 15.** The Relevant_Age variable shows minimal correlations, with very weak positive relationships for "Let's Make Collage" (r = 0.02) and "Norzip Penjor" (r = 0.07), suggesting that the relevance of age has little effect on the perceived challenge of these activities. The correlation for "Gratitude Jar" is slightly stronger but negative (r = -0.14), indicating that this activity's perceived difficulty marginally decreases as age's relevance increases. However, the overall impact of age relevance remains negligible.

Table 15. Correlation Analysis of Parents' Top Three Challenging Activities and Associated Variables

Variables	Top three challenging activities		
	Let's make collage	***Norzip Penjor***	***Gratitude Jar***
Relevant_Age	0.02	0.07	-0.14
Relevant_understanding	0.03	-0.10	-0.06
Activity_frequency	0.06	-0.01	-0.01

Note. ***Correlation is significant at the 0.05 level (two-tailed)*

Similarly, the Relevant_understanding variable reveals weak correlations with the activities, with a positive but negligible correlation for "Let's Make Collage" (r = 0.03) and a slight negative correlation for "Norzip Penjor" (r = -0.10). The correlation for "Gratitude Jar" (r = -0.06) is similarly weak, suggesting that understanding has little to no effect on the perceived challenge of the activities. Regarding Activity_ frequency, the correlations are weak for all three activities, with "Let's Make Collage" (r = 0.06) and "Norzip Penjor" (r = -0.01) showing minimal associations, while the correlation for "Gratitude Jar" (r = -0.01) suggests no relationship between activity frequency and perceived difficulty. In conclusion, the analysis indicates that none of the examined variables, Relevant_Age, Relevant_understanding, and Activity_ frequency, substantially influence the perceived difficulty of these activities. All observed correlations are weak, implying that the relevance of age, understanding, and frequency of activity participation has a limited impact on how challenging the parents perceive these activities.

As shown in **Table 16**, the correlation analysis reveals generally weak associations between various factors and the perceived difficulty faced by facilitators regarding the top three challenging activities: Creating a Storyboard, Whispering Game, and Keeping Promises. The Relevant_Age variable demonstrates weak negative correlations with the activities, with the most significant relationship observed for "Keeping Promises" ($r = -0.12$, $p < 0.05$). This suggests that as age's relevance increases, this activity's perceived challenge slightly decreases. However, the correlations for "Creating a Storyboard" (r = -0.05) and "Whispering Game" (r = -0.06) are negligible, indicating a minimal influence of age relevance on the perceived difficulty of these activities. A similar pattern is observed for the Relevant_understanding variable, which exhibits weak negative correlations, again with the strongest effect for "Keeping Promises" ($r = -0.12$, $p < 0.05$). This suggests that greater relevance of understanding is associated with a slight reduction in perceived challenge.

Table 16. Correlation Analysis of Facilitators' Top Three Challenging Activities and Associated Variables

Variables	Top three challenging activities		
	Creating a Storyboard	***Whispering Game***	***Keeping Promises***
Relevant_Age	-0.05	-0.06	-0.12**
Relevant_understanding	-0.08	-0.09	-0.12**
Activity_frequency	0.08	0.04	0.12**
Interest_level	-0.12	-0.11**	-0.19**
Engagement_level	-0.1	-0.11**	-0.16**

***Note**. **Correlation is significant at the 0.05 level (two-tailed)*

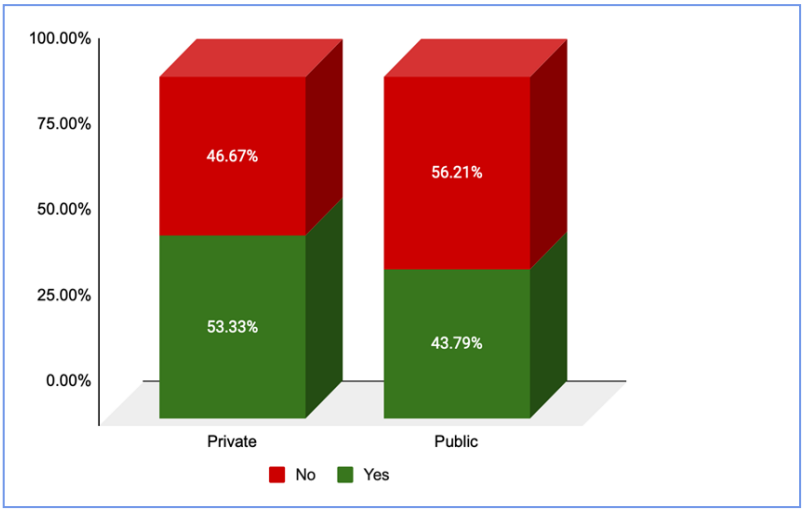
The Activity_frequency variable demonstrates weak positive correlations, particularly for "Keeping Promises" ($r = 0.12$, $p < 0.05$), suggesting that increased frequency of engagement may slightly increase the perceived difficulty of this activity. However, the effect remains marginal for "Creating a Storyboard" ($r = 0.08$) and "Whispering Game" ($r = 0.04$). Regarding Interest_level and Engagement_level, both variables show negative correlations with perceived difficulty, with the strongest correlations observed for "Keeping Promises" ($r = -0.19$, $p < 0.05$, and $r = -0.16$, $p < 0.05$, respectively). These findings suggest that higher levels of interest and engagement are associated with a decreased perception of challenge, particularly for "Keeping Promises."

Overall, while the correlations are statistically significant, they remain weak, indicating that the influence of the examined variables on the perceived difficulty of the activities faced by the facilitators is limited. Interest and engagement levels show the most pronounced effects, but the overall impact on the perceived challenge of the activities remains modest.

3.4.2 Challenges Faced during the DAMTSI Program Implementation

Implementing the DAMTSI program in ECCD centres revealed significant challenges, as shown in **Figure 30.** 53.33% of the private ECCD centres reported facing challenges during the program's implementation, compared to 43.79% in public centres. This discrepancy suggests that private centres experienced more difficulties adopting and integrating the DAMTSI program into their existing systems. Conversely, public centres showed a higher proportion of respondents (56.21%) who indicated no challenges, which can be because 80.57% of public ECCD centres report receiving training on the DAMTSI program, compared to 63.16% of private centres.

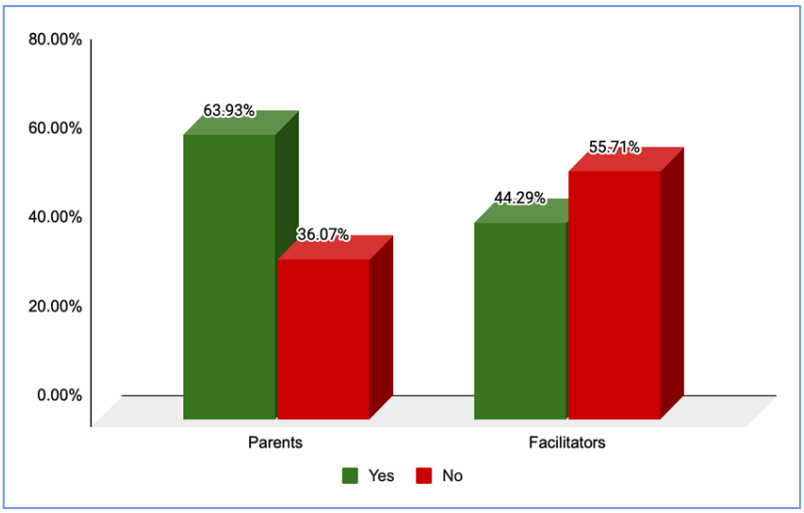
Figure 30. Challenge faced by ECCD Centres Type



Note. *Source (n=15 Private ECCD centres, 338 Public ECCD centres)*

Figure 31 shows the facilitators' and parents' challenges while implementing the DAMTSI program. The data reveals a significant disparity in parents' experiences during the implementation of DAMTSI activities with children at home. Most parents (63.93%) reported encountering challenges, while a smaller proportion (36.07%) did not face any notable issues.

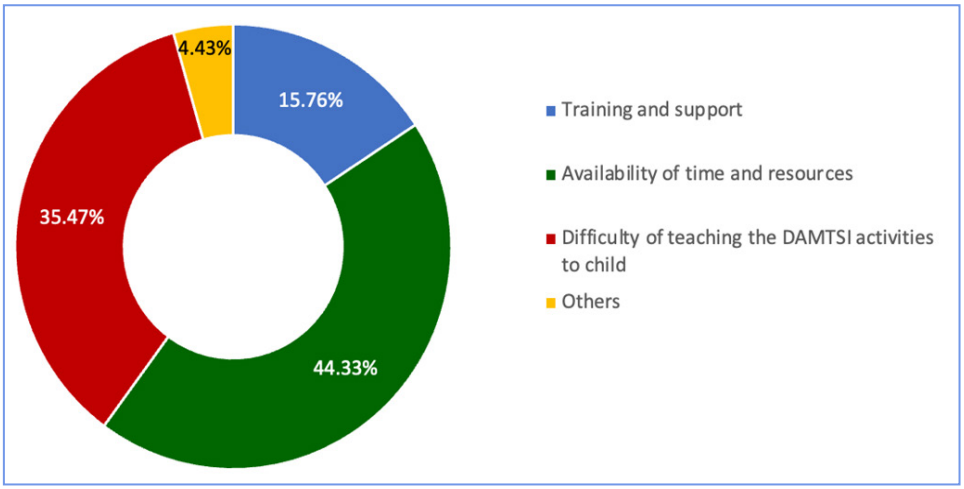
Figure 31. Challenges Faced by Respondents during the DAMTSI Program Implementation



Note. *Source (n=219 parents, 499 facilitators)*

The findings reveal that many parents encounter challenges implementing DAMTSI activities within their households. As shown in **Figure 32**, a substantial share of the parents (44.33%) identified the lack of time and resources as the primary impediment to implementing these activities. Similarly, 35.47% reported difficulties in teaching DAMTSI-related activities to children. This could be attributed to challenges such as children's young age and limited understanding. Furthermore, 15.76% of parents highlighted insufficient training and support as key barriers to effectively implementing the DAMTSI program. A smaller proportion (4.43%) cited other factors, such as children's moods, as additional obstacles to successful program implementation at home.

Figure 32. Challenges faced by parents in the implementation of DAMTSI



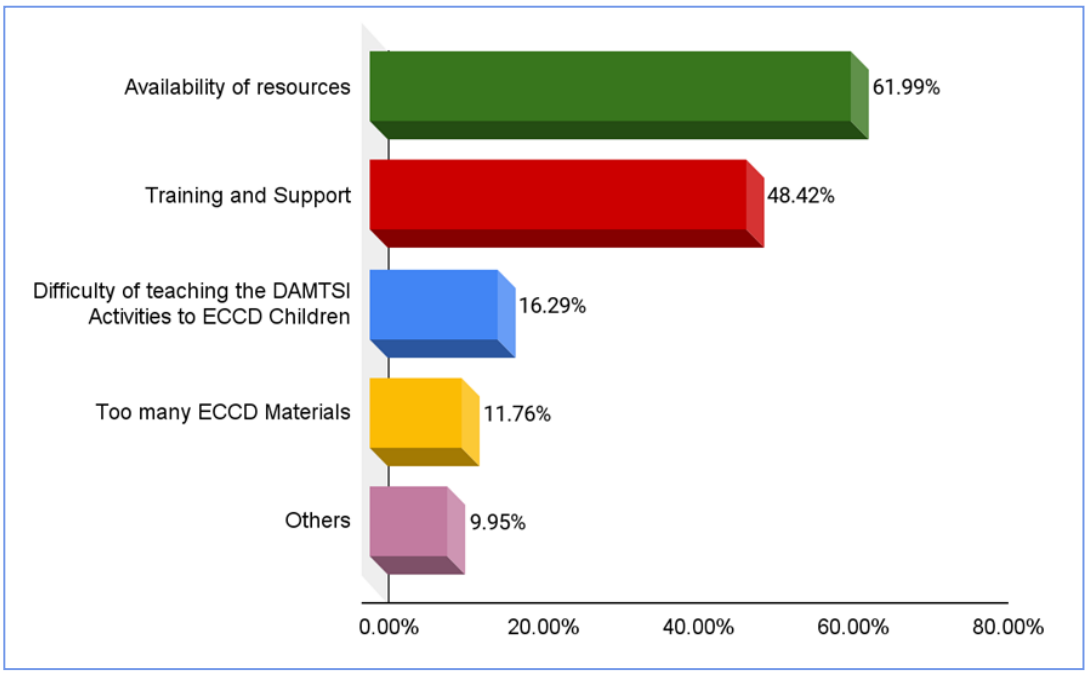
***Note**. Source (n=140 parents who have faced challenges responded to a multi-select question)*

Likewise, 44.29% of facilitators encountered challenges, while 55.71% reported no significant challenge while implementing the DAMTSI program ***(refer Figure 31)***. As shown in **Figure 33,** facilitators mainly face challenges, with unavailability of resources being the most significant challenge, reported by 61.99% of facilitators. This suggests limited access to necessary materials and tools hinders effective program delivery. The concern was also raised by DEOs/TEOs and focal principals, who said many centres face challenges due to inadequate resources, including activity guides, learning materials, and physical infrastructure (r3, Pos. 16; r21, Pos. 14). Facilitators often need to create their resources, which adds to their workload and affects the program's quality (r21, Pos. 16). Another constraint is the lack of funding for replenishing worn-out materials (R17, Pos. 16).

Additionally, 48.42% highlighted the need for more training and support, indicating professional development and guidance gaps. The DEOs/TEOs and focal principals also shared that a recurring concern is the lack of training for new facilitators. Many new facilitators have only been introduced to the program and have not received in-depth training, leaving them ill-equipped to implement activities effectively (R18, Pos. 7; r21, Pos. 14).

Some facilitators (16.29%) also face difficulties teaching DAMTSI activities to ECCD children, likely due to the children's developmental limitations. Furthermore, 11.76% noted that managing an excessive volume of ECCD materials poses a challenge in organizing and prioritizing content. Addressing these issues through better resource provision, targeted training, and streamlined materials could enhance the overall effectiveness of the DAMTSI program.

Figure 33. Challenges faced by facilitators in implementing DAMTSI Activities



***Note**. Source (n=221 facilitators responded to a multi-select question)*

Further, the challenges faced by facilitators have been analyzed by Dzongkhag ***(see Annexure 5)*** to identify the specific difficulties encountered by each Dzongkhag/thromde during the implementation of the DAMTSI Program. This will enable targeted interventions to be developed for each Dzongkhag, addressing their challenges.

3.4.3 Challenges Reported by Education Officers and Focal Principals

3.4.3.1 Parental Involvement

A key challenge is the lack of active parental involvement, with rural parents often being unavailable due to farming duties and urban parents sometimes being unresponsive (R1, Pos. 14; R5, Pos. 15). Many parents hesitate to take home activity cards for fear of damaging them, while others struggle with certain activities, like singing, due to a lack of confidence (R15, Pos. 16). However, some centres report that, over time, parents have become more cooperative and supportive (R1, Pos. 15), demonstrating variation in parental engagement. Research underscores the importance of parental involvement in early childhood education, as it directly impacts children's learning outcomes (Epstein, 2011). Nonetheless, Bhutan's rural context may require tailored engagement strategies to overcome cultural and economic barriers.

3.4.3.2 Facilitator Training and Capacity

A common concern is the insufficient training for new facilitators, many of whom have only been introduced to the program without in-depth training, which affects their ability to implement activities effectively (R18, Pos. 7; R21, Pos. 14). While many senior facilitators received training (R3, Pos. 12; R7, Pos. 12), newly recruited facilitators often lack access to such training (R8, Pos. 11; R9, Pos. 16). For instance, R17 noted that, while older facilitators are well-versed in the program, newly recruited facilitators have not received adequate training, highlighting a gap in capacity building for new entrants. Furthermore, some respondents highlighted the absence of refresher courses. For instance, R19 noted that while all facilitators [in their region] received training in 2022, no further refreshers have been held, which has left newly recruited facilitators without training (R19, Pos. 14). The frequent turnover of facilitators further exacerbates this issue, as retraining becomes a resource-heavy necessity (R10, Pos. 14). Although experienced facilitators often train newcomers, this informal approach lacks standardization (R16, Pos. 14). Globally, ongoing professional development for ECCD facilitators is recognized as essential for effective program delivery (OECD, 2015). Bhutan's budget limitations, however, hinder consistent training opportunities, contrasting with countries with stronger early childhood education policies.

Another key area that needs attention is the program's integration into broader ECCD training modules. Several respondents pointed out that while the DAMTSI program is introduced during basic training, it lacks dedicated, in-depth sessions. This limited focus hinders facilitators' ability to implement the program effectively. Moreover, principals expressed uncertainty regarding their facilitators' training status, with some suggesting that only those employed for extended periods might have received training. The respondents also criticized the brevity of DAMTSI-related training sessions. For example, R15 mentioned that a two-day rollout was insufficient to comprehensively cover the program, leaving facilitators in dilemmas about correct implementation. Studies highlighting the link between training duration and facilitator competency have shown that short training durations may compromise the acquisition of practical skills.

3.4.3.3 Resource Availability

Many centres struggle with a lack of resources, such as activity guides, learning materials, and appropriate physical infrastructure (R3, Pos. 16; R21, Pos. 14). Facilitators often have to create their resources, which adds to their workload and impacts the quality of the program (R21, Pos. 16). Additionally, the lack of funding for replacing worn-out materials is a significant constraint (R17, Pos. 16). While some Dzongkhags report adequate budgets for ECCD, others face challenges due to centralized funding cuts (R4, Pos. 21; R19, Pos. 16). In fact, resource availability for ECCD centres remains inconsistent. Several DEOs emphasized that budget constraints impact their ability to provide play materials and other resources. For instance, one DEO stated, "Last year, we were able to save a few thousand from the construction of a new ECCD centre, which was used to buy carpets, but we have not been able to provide any play materials" (R3, Pos. 20). Similarly, another DEO noted, "The annual budget we receive has been on a decreasing trend, and the financial support we can offer to ECCDs for such programs is very minimal" (R10, Pos. 20). Conversely, some respondents reported substantial resource investments. One DEO shared, "We provide play materials valued at Nu. 100,000 for each ECCD centre. Additionally, we supply carpets, mats, TVs, water dispensers, and heaters" (R19, Pos. 24). This contrast underscores inequities in resource distribution, which may be influenced by regional priorities or financial management. Research highlights that having adequate resources, including play materials and activity cards, is vital for stimulating young children's cognitive and social development (Hirsh-Pasek et al., 2009).

3.4.3.4 Geographic and Environmental Factors

In remote highland areas like Laya and Lunana, children's attendance is inconsistent due to parents' mobility for activities like yak herding and cordyceps collection (R4, Pos. 24). Adverse weather conditions also hinder outdoor activities and limit access to appropriate play environments (R2, Pos. 18; R5, Pos. 13). Urban centres, on the other hand, face challenges such as a lack of parent appointments, highlighting the different needs across regions (R5, Pos. 15). The literature on rural education in developing countries suggests similar barriers, where geographic isolation affects both access to and the quality of early childhood education (UNESCO, 2015).

3.4.3.4 Physical Infrastructure Limitations and Human Resource Challenges

Limited physical infrastructure, including inadequate toilets and insufficient space for activities, negatively impacts the learning environment (R13, Pos. 15; R8, Pos. 13). Additionally, facilitators often take on multiple roles, such as Non-Formal Education (NFE) instructors, which further strains their capacity (R10, Pos. 14). While some centres report no significant challenges and state that the program has been effectively integrated (R19, Pos. 16), this appears to be more of an exception. Globally, ECCD programs emphasize dedicated roles and specialized spaces to ensure a supportive learning environment (Britto, Yoshikawa, & Boller, 2011).

3.4.3.5 Program Implementation and Monitoring

Effective implementation of the DAMTSI program is hampered by a lack of training for focal principals who monitor the program. Many are unaware of the program's objectives, making it challenging to provide meaningful oversight (R20, Pos. 15; R24, Pos. 31). This issue is compounded by the additional workload of school leaders who manage multiple responsibilities. However, some schools have implemented innovative practices, such as using social media groups for facilitator updates and support (R24, Pos. 22), which could serve as a model for other regions. Research indicates that involving school leadership in program training is crucial for sustainability and accountability (Leithwood & Jantzi, 2005).

3.4.4 Challenges faced by BECEDA

During the consultation meeting with the Private ECCDs under the BECEDA, they shared that they face many challenges. One of the most pressing concerns is the lack of parental support, which is crucial for reinforcing learning at home. Many parents hesitate to engage in the DAMTSI program, limiting their involvement in educational activities and follow-up practices. However, one measure of the many is reaching out to parents during weekends or after hours to ensure parents are actively participating. The lack of consistent communication leads to a disconnect between the ECCD Centres and home environments, ultimately affecting the child's learning experience and the effectiveness of educational programs.

Moreover, private ECCDs often feel neglected by government stakeholders due to inadequate resources, materials, and attention compared to public ECCDs, which typically receive more governmental support. Another critical challenge is insufficient training and capacity-building opportunities for private ECCD facilitators. Without adequate professional development, private facilitators lack the knowledge and skills to effectively implement educational programs like DAMTSI. As a result, the impact of such programs is limited, and facilitators struggle to meet the academic needs of the children in their care. The gap in training opportunities also makes it difficult for private ECCDs to keep up with evolving educational trends and best practices, hindering their overall growth and development as academic institutions. Resource limitations, particularly concerning educational materials like the DAMTSI activity book, pose significant challenges.

Lastly, the perception that private ECCDs are primarily profit-driven institutions also detracts from their legitimacy and the recognition of their crucial role in early childhood education. This perception leads to a lack of trust and support from both parents and the community, further isolating private ECCDs and preventing them from achieving their full potential in fostering the development of young children.

These various challenges highlight the urgent need for improved support, resources, and training to enhance the capacity of private ECCDs. Addressing these issues will enable private ECCDs to serve communities better and contribute meaningfully to the early childhood education landscape. By providing greater attention, resources, and professional development opportunities, stakeholders can help ensure that private ECCDs can fulfil their critical role in shaping the children's future in their care.

4.1 Strengthen Directives for Uniform Implementation of the DAMTSI Program in ECCD Centres

The findings reveal that approximately one-third of the interview respondents are unaware of any policy mandating implementing the DAMTSI program in the ECCD centres. Many respondents expressed that, without clear guidelines and consistent follow-up from the Ministry, the program is often perceived as an optional or supplementary activity rather than a core component of early childhood education. This lack of clarity has led to inconsistent implementation across centres, undermining the program's potential impact.

To address this, the Ministry should provide an explicit and well-communicated directive to all stakeholders regarding the mandatory implementation of the DAMTSI program. This should include strengthened policy guidelines, a detailed implementation framework, and regular follow-up and evaluation to ensure adherence. Such measures would help establish the DAMTSI program as an integral part of ECCD practices, fostering uniformity and commitment across centres and enhancing its overall effectiveness.

4.2 Enhance Awareness of the DAMTSI Program by Enhancing Outreach through ECCD Centres

The findings show that 36.6% of the parents are still unaware of the program, even though it has been almost three years since it was rolled out. Moreover, given that 94.26% of parents learned about the DAMTSI program from schools or ECCD centres, it is crucial to leverage these institutions as primary channels for outreach. ECCDs, with the support from Dzongkhags and gewogs, should develop targeted communication strategies that encourage ECCD facilitators to actively promote the DAMTSI program during parenting sessions, workshops, and community events.

4.3 Capacity Building of Facilitators

One of the significant challenges facilitators face in implementing the DAMTSI program is the lack of adequate training and support. According to the report, 48.42% of facilitators highlighted the need for more training and support, indicating gaps in professional development and guidance ***(refer Figure 25)***. Additionally, many new facilitators have only been introduced to the program without receiving in-depth training, leaving them ill-equipped to implement activities effectively. This lack of training affects the quality of program delivery and contributes to the overall challenges in fostering the intended moral values among children. Both interim and long-term strategies should be implemented to enhance facilitators' capacity to implement the DAMTSI program effectively.

4.3.1 Interim Measure

As an interim measure, the Ministry to issue directives to Dzongkhags and Gewogs, emphasizing the importance of strengthening professional development for facilitators and educators. This will involve ensuring that adequate budgets are allocated and that professional development initiatives are formally integrated into their annual plans and strategies.

The Ministry should prioritize Dzongkhags such as Samdrup Jongkhar, Wangdue, Thimphu, Sarpang, Paro, Haa, Lhuentse, Gasa, and Chhukha, as well as Thromdes like Gelephu, Phuntsholing, and Thimphu. These areas have identified training and support as key challenges during the implementation of the DAMTSI program and would benefit from focused intervention to strengthen the facilitator's capacity. The findings reveal that most public ECCD centres reported receiving training on the DAMTSI program, while private centres lag in this regard. Therefore, the Ministry should offer DAMTSI training sessions for facilitators in private ECCD centres to address this training gap, ensuring that all educators have the necessary skills and knowledge to implement the program effectively.

4.3.2 Long-term Measure

Developing a comprehensive training module is crucial to ensure sustained improvements in facilitation quality. While the diploma course in ECCD is currently offered by the Royal University of Bhutan (RUB), it does not include the DAMTSI program in the curriculum. Consequently, facilitators graduating from the programs lack the knowledge and skills to implement the DAMTSI program effectively. This gap emphasizes the need to incorporate the DAMTSI curriculum into existing diploma courses, ensuring facilitators are adequately prepared to apply the program's principles and strategies.

On a more promising note, degree courses in ECCD are under development, presenting an opportunity to formally integrate the DAMTSI program into the core curriculum. This would provide future educators with in-depth training in the program's application. By including DAMTSI content in degree-level courses, institutions can offer a more systematic and comprehensive approach to training facilitators, preparing them to implement the program effectively and contribute to its long-term success. This initiative will help build a more skilled and capable workforce in early childhood education. The MoESD should collaborate with the Royal University of Bhutan to bring this initiative to fruition.

4.4 Strengthen incorporation of the DAMTSI values into Monitoring and Evaluation Framework

The absence of specific DAMTSI indicators in the MoESD's monitoring and evaluation (M&E) framework is a key challenge, as shown by 3.08% and 10.25% of facilitators and parents not implementing the DAMTSI program, respectively. This, in turn, poses a further challenge of being unable to measure behavioral changes and the program's effectiveness. Moreover, the report also highlights the lack of training for focal principals overseeing the program, limiting their support for facilitators.

To address this, it is recommended that MoESD explore ways to strengthen the incorporation of the DAMTSI specific values in the descriptors within the Quality Monitoring Tools for ECCD Centres (QMTEC). Incorporating descriptor on DAMTSI values into the QMTEC would not only help with the uniform application of the program but also track the program's progress through real-time monitoring. This will help the Ministry get data-driven insights and identify areas for improvement in program implementation.

Moreover, parents and facilitators can use the 19 indicators under the three core values to monitor behavioral change in children. By doing so, facilitators and parents enhance the effectiveness of the DAMTSI program, ensuring it meets its objectives and contributes to the long-term success of early childhood education initiatives.

4.5 Improve Resource Accessibility

To address the resource scarcity facilitators and parents face in implementing the DAMTSI program, the ACC and MoESD should establish a Centralized Resource Hub. This online platform could function as a dedicated page for DAMTSI using social media pages or integrating in the existing mobile applications like EduCare, or in the existing websites. The hub would be a comprehensive platform, offering easy access to DAMTSI-related resources such as activity books/cards. The hub would highlight the program's benefits, share success stories, and encourage greater parental and community involvement by integrating engaging visuals, interactive posts, and multimedia content.

The findings show that many ECCD centres lack critical resources like activity books and cards, which hampers effective program implementation. A centralized hub would mitigate these challenges by providing facilitators and parents free, on-demand access to essential materials, thus ensuring consistency and equity across ECCD centres. Furthermore, this platform would empower facilitators with tools to enhance their teaching practices and improve program delivery.

In addition to offering static resources, the Resource Hub should include engaging multimedia learning tools such as video infographics, animations, rhymes, and songs from the DAMTSI Activity Book. These digital materials would cater to various learning styles and make the program more accessible and engaging for children. These multimedia resources would enrich the learning experience and foster stronger connections between parents, facilitators, and children by supporting cognitive, emotional, and social development.

The effectiveness of such hubs has been demonstrated globally. For example, UNICEF's Education Innovation Hub provides digital tools and curriculum support to enhance inclusive education. At the same time, the UK's National STEM Learning Centre offers free resources and professional development opportunities to improve teacher effectiveness and student engagement. Drawing from these models, the DAMTSI Resource Hub could achieve similar success in Bhutan by ensuring equitable access to high-quality learning materials, improving the program's reach and sustainability, and reinforcing its impact on moral and behavioral development in children.

4.6 Review the DAMTSI Activity Book

The findings reveal that some parents and facilitators consider the DAMTSI Activity Book insufficient in terms of the number of activities provided. So, a thorough review of the DAMTSI Activity Book should be undertaken to identify opportunities for improving its content and structure. The main focus should be on increasing the variety of activities to make them more diverse, engaging, and tailored to the developmental needs of children across different age groups. Furthermore, the review should prioritize ensuring that the content is age-appropriate, aligning with the cognitive, emotional, and physical capabilities of children at various stages of early development. This is particularly important as the findings highlight a notable discrepancy in how parents and facilitators perceive the age-appropriateness of the content. While a significant majority of facilitators (70.74%) rated it as moderately appropriate, this suggests there is considerable scope for enhancing the content to better match children's developmental stages.

Additionally, the review should place special emphasis on inclusivity, aiming to adapt the activity book to better support children with special educational needs (SEN). This should involve introducing specific modifications, such as simplified instructions, visual aids, and adaptive tools, to ensure that children with diverse learning abilities can fully engage with and benefit from the activities. The ultimate goal is to create a more inclusive and accessible resource that fosters the holistic development of all children, regardless of their individual needs or challenges. Through these improvements, the DAMTSI Activity Book will become a more effective and equitable tool for early childhood education and development.

Furthermore, it is essential to simplify complex and challenging activities, providing structured guidance, and offering necessary resources to improve challenging activities for both parents and facilitators. For parents, revising high-challenge activities like "Let's Make a Collage", "Norzip Penjor" and "Gratitude Jar" and for facilitators, "Creating a Storyboard", "Whispering Game," and "Keeping Promises" can be achieved by simplifying instructions with clear, step-by-step guidance and visual aids, conducting workshops to address common challenges, and supplying pre-prepared materials. Encouraging peer learning can also significantly enhance their effectiveness. These strategies ensure that activities remain engaging, accessible, and impactful for all participants.

4.7 Stakeholder Coordination and Collaboration

4.7.1 Engage LG to manage and monitor ECCD Centres

To enhance the management and quality assurance of ECCD centres and ensure the effective implementation of the DAMTSI Program, it is essential to actively engage Local Governments (LGs) in their oversight and support. LGs, being closer to the communities, are uniquely positioned to address region-specific challenges and ensure the program's success. Strengthening the authority and capacity of LGs to manage and monitor ECCD centres should be a priority. This can be achieved through measures that promote decentralized governance, enabling LGs

to mobilize resources for professional development of facilitators, oversee program implementation, and address community-specific needs effectively. LGs should also prioritize community, especially parental engagement by raising awareness about the importance of early childhood education and the DAMTSI Program through parent meetings, campaigns, and community events. By integrating LGs into the management and monitoring processes, ECCD centres can benefit from improved accountability, localized decision-making, and tailored service delivery, ultimately enhancing early childhood education outcomes.

4.7.2 Strengthen collaboration and support BECEDA

The BECEDA, as the representative body for private ECCD centres, plays a vital role in addressing the unique needs and challenges faced by private institutions. To enhance the effectiveness and inclusivity of early childhood education programs, the Ministry of Education and Skills Development (MoESD) should strengthen its collaboration with BECEDA by establishing structured platforms for cooperation and consultation. This can be achieved by including BECEDA representatives in committees or task forces responsible for developing ECCD policies and curricula, ensuring that the perspectives of private centres are integrated into national-level decision-making.

Additionally, BECEDA could take the lead in organizing refresher training for its members in private ECCD centres, mobilizing technical support from the ACC, MoESD, and Dzongkhags. By leveraging BECEDA as a key resource, the reach and impact of the DAMTSI program can be significantly expanded, ensuring that all ECCD centres, both public and private, are equipped to deliver high-quality value-based education.

5 CONCLUSION

The evaluation of the DAMTSI program underscores its significant contributions to fostering essential values such as honesty, responsibility, and fairness among children enrolled in ECCD centres across Bhutan. This aligns closely with Bhutan's Gross National Happiness framework, which prioritizes holistic development and moral education. The findings indicate that the program has positively influenced children's behavior. As reported by facilitators and parents, the behavior change was particularly in areas such as adherence to rules, responsibility, and fairness. These outcomes reflect the program's potential to be a foundational element in developing moral and ethical individuals from an early age.

However, the study also highlights notable challenges that hinder the program's optimal implementation. Awareness of the DAMTSI program among key stakeholders, especially parents, remains inconsistent, and facilitators face resource and training constraints. The absence of explicit policy directives mandating the program and inconsistent follow-up from authorities have resulted in varying levels of implementation fidelity across centres. Public ECCD centres exhibit higher adoption and implementation rates than private centres, pointing to disparities in resource access and institutional support. Furthermore, while the DAMTSI Activity Book has been well-received, feedback suggests a refinement to better cater to children's developmental stages and inclusivity, particularly for those with special educational needs.

To address these gaps, the study emphasizes the importance of systemic interventions. Clear and explicit policy directives must ensure the program's mandatory and uniform implementation across all ECCD centres. Comprehensive training programs for facilitators and integrating DAMTSI modules in Diploma and Degree Courses in ECCD under RUB would enhance their preparedness and capacity. Establishing a centralized resource hub, offering access to age-appropriate materials and engaging digital content, could address resource disparities and improve program delivery. Enhancing parental awareness and engagement through targeted outreach and community-based initiatives is equally critical to fostering a collaborative approach to value-based education.

The DAMTSI program is a promising initiative for instilling moral and ethical values in children, contributing to Bhutan's vision of nurturing responsible, accountable, and trustworthy citizens. By addressing the identified challenges and strengthening collaboration among stakeholders, the program can achieve more significant impact and sustainability, ensuring it remains a cornerstone of early childhood education in Bhutan. This evaluation provides a pathway for future enhancements, ensuring that the DAMTSI program fulfils its potential to build a more equitable, ethical, and values-driven society.

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7 ANNEXURE

Annexure 1. Implementation status of DAMTSI Program by Dzongkhag/Thromde

Dzongkhag	Implementation of the DAMTSI Program	
	No	*Yes*
Samdrupjongkhar	17.39%	82.61%
Phuntsholing Thromde	11.11%	88.89%
Wangdue Phodrang	11.11%	88.89%
Thimphu Thromde	9.09%	90.91%
Dagana	5.00%	95.00%
Samtse	5.00%	95.00%
Paro	4.00%	96.00%
Mongar	3.57%	96.43%
Chhukha	2.94%	97.06%
Bumthang	0.00%	100.00%
Gasa	0.00%	100.00%
Gelephu Thromde	0.00%	100.00%
Haa	0.00%	100.00%
Lhuentse	0.00%	100.00%
Pemagatshel	0.00%	100.00%
Punakha	0.00%	100.00%
Samdrupjongkhar Throm	0.00%	100.00%
Sarpang	0.00%	100.00%
Thimphu	0.00%	100.00%
Trashigang	0.00%	100.00%
Trashiyangtse	0.00%	100.00%
Trongsa	0.00%	100.00%
Tsirang	0.00%	100.00%
Zhemgang	0.00%	100.00%
Gelephu Thromde	0.00%	100.00%

Note. *Source (n=520 facilitators)*

Annexure 2. Behavioral Changes in Terms of Indicators

Indicator_ID	Indicator	Parents	Facilitator	Teachers
I1	Responding truthfully.	3.53	3.31	3.39
I2	Keeping promises/commitments	3.21	3.17	3.19
I3	Admitting mistakes honestly.	3.45	3.19	3.16
I4	Returning lost-and-found items to the School/owner honestly and promptly.	3.52	3.53	3.36
I5	Reporting misbehaviors and unfairness honestly and promptly.	3.45	3.46	3.46
I6	Asking permission before taking things and taking leave.	3.72	3.55	3.46
I7	Appreciating acts of honesty.	3.48	3.28	3.23
I8	Identifying and following the School rules.	3.7	3.39	3.36
I9	Carrying out the assigned roles in a given time.	3.52	3.32	3.23
I10	Carrying out assigned roles and responsibilities.	3.4	3.23	3.28
I11	Taking care of personal belongings and school's resources.	3.62	3.45	3.19
I12	Accepting one's mistakes.	3.36	3.18	3.06
I13	Being answerable for one's words and actions	3.27	3.21	3.14
I14	Taking turns	3.45	3.41	3.18
I15	Staying in queue.	3.58	3.34	3.2
I16	Demonstrating fair play.	3.47	3.27	3.16
I17	Treating everyone equally.	3.54	3.37	3.16
I18	Making consultative decisions.	3.15	3.14	3
I19	Discussing fair and unfair actions.	3.37	3.24	3.11
Behavioral Change		***3.46***	***3.32***	***3.23***
Overall Behavioral Change		**3.39 (Moderately Low)**		

Note. *Source (n=499 facilitators, 384 parents, 542 teachers)*

Annexure 3. Level of challenge in implementing DAMTSI activities by Parents

Activities	Activity_ID	Mean	% of parents carrying out the activity
Let's Make Collage	F4	2.19	61.07%
Norzip Penjor	H1	2.16	71.31%
Gratitude Jar	H5	2.12	53.69%
Yarab Choeba	F5	2.07	42.21%
Home Rules	R1	1.96	84.84%
Let's Cook Together	R3	1.94	76.64%
Nge Gi Gyenkhu	R4	1.94	58.61%
Keeping Promises	H2	1.93	56.56%
Let's Sing!	F1	1.84	75.00%
Sorting of Items	R2	1.83	83.61%
Be like Wangyal	R5	1.79	65.57%
Let's be Equal!	F3	1.79	52.46%
Ku Ku	F2	1.77	80.33%
Ask Permission	H4	1.76	62.70%
Dorji Owns Up His Mistake	H3	1.72	66.80%

***Note**. Source (n=219 parents)*

Annexure 4. Level of challenge in implementing DAMTSI activities by Facilitators

Activities	Activity_ID	Mean	% of facilitators carrying out the activity
Creating a Storyboard	H7	2.64	98.40%
Whispering Game	H2	2.59	98.40%
Keeping Promises	H4	2.58	99.00%
Wool Web	F13	2.55	98.00%
Domino	F2	2.53	98.80%
Keep Your Promise, and Earn a Reward!	H5	2.53	99.00%
Let's Cook Together	R6	2.53	97.80%
Follow the Rules	R1	2.52	98.40%
Making a Book	R4	2.52	98.80%
Memory Game	F1	2.5	99.00%
Card Game	H12	2.47	97.60%
Sorry! It is my fault	R12	2.47	98.80%
Starboard	R8	2.47	97.60%
I am Responsible	R14	2.46	98.60%
Responsibility Card	R7	2.46	98.20%
Yarab Choed-ba Lhab Gay	H11	2.44	96.99%
Who is responsible for….?	R13	2.44	98.20%
Everyone is Equal	F10	2.43	98.60%
Gratitude Board	H13	2.43	96.99%
Puppet Story	H6	2.43	97.80%
Shape Formation	F12	2.42	98.80%
The Honest Woodcutter	H1	2.42	96.79%
Nge Gi Gyenkhu	R9	2.42	98.00%
Experience Sharing	F9	2.41	98.60%
Nurturing a Plant	R11	2.41	98.60%
Sonam Says	R2	2.41	98.20%

Campus Tour	H9	2.4	98.20%
Yarab Choeba	F15	2.39	97.39%
Kado the Rabbit Learns to be Fair	F8	2.39	98.20%
Hunting for Objects	H8	2.39	98.00%
Exploring Nature	F14	2.37	97.39%
Team Coloring	F3	2.37	98.00%
Route Game	F5	2.37	98.40%
Jumping the line	H3	2.37	98.20%
Twinkle... Twinkle…	R3	2.36	97.39%
Musical Run	F7	2.33	98.60%
Vegetable Race	H10	2.32	96.59%
Knock Down the Bottles	F6	2.31	97.60%
Sand Play	R10	2.31	97.60%
Building Tower	F11	2.28	98.00%
In and Out	F4	2.28	98.40%
Sorting of Items	R5	2.27	98.20%

Note. *Source (n=499 facilitators)*

Annexure 5. A Dzongkhag-wise Challenges Faced by Facilitators during DAMTSI Program Implementation

Dzongkhag	Training and Support	Availability of Resources	Difficult teaching DAMTSI	Too many ECCD materials	Other
Bumthang	29.41%	47.06%	5.88%	5.88%	11.76%
Chhukha	47.83%	34.78%	13.04%	4.35%	0.00%
Dagana	42.11%	47.37%	5.26%	5.26%	0.00%
Gasa	50.00%	25.00%	25.00%	0.00%	0.00%
Haa	50.00%	50.00%	0.00%	0.00%	0.00%
Lhuentse	42.86%	42.86%	0.00%	0.00%	14.29%
Mongar	25.71%	48.57%	8.57%	8.57%	8.57%
Paro	29.41%	17.65%	11.76%	29.41%	11.76%
Pemagatshel	18.18%	36.36%	18.18%	18.18%	9.09%
Punakha	30.00%	50.00%	0.00%	0.00%	20.00%
Samdrupjongkhar	30.00%	40.00%	20.00%	0.00%	10.00%
Samtse	9.09%	54.55%	9.09%	9.09%	18.18%
Sarpang	35.71%	42.86%	21.43%	0.00%	0.00%
Thimphu	40.00%	40.00%	0.00%	20.00%	0.00%
Trashigang	25.00%	56.25%	12.50%	3.13%	3.13%
Trashiyangtse	16.67%	55.56%	5.56%	16.67%	5.56%
Trongsa	25.00%	50.00%	16.67%	8.33%	0.00%
Tsirang	15.38%	61.54%	7.69%	7.69%	7.69%
Wangdue Phodrang	60.00%	13.33%	13.33%	13.33%	0.00%
Zhemgang	23.53%	47.06%	17.65%	5.88%	5.88%
Thimphu Thromde	44.44%	22.22%	16.67%	5.56%	11.11%
Phuntsholing Thromde	50.00%	0.00%	50.00%	0.00%	0.00%
Samdrupjongkhar Thromde	100.00%	0.00%	0.00%	0.00%	0.00%
Gelephu Thromde	62.50%	12.50%	0.00%	12.50%	12.50%

***Note**. Source (n=221 facilitators responded to a multi-select question)*

Annexure 6. DAMTSI Activities under the 19 Indicators

Competency/ Value	Indicator_ ID	Indicators	Activities forchildren		Activities for Parents	
Honesty	I1	The child is able to respond truthfully.	H1	The Honest Woodcutter	H1	Norzip Penjor
			H2	Whispering Game		
			H3	Jumping the Line		
	I2	The Child is able to keep promises/ commitments.	H4	Keeping Promises	H2	Keeping Promises
			H5	Keep Your Promise, and Earn a Reward!		
	I3	The Child is able to admit one's mistakes honestly.	H6	Puppet Story	H3	Dorji Owns up His Mistake.
			H7	Creating a Story Board		
	I4	The Child is able to return the lost-and-found items to the Centre/owner honestly and promptly.	H8	Hunting for Objects,		
			H9	Campus Tour		
	I5	The Child is able to report misbehaviours and unfairness honestly and promptly.	H10	Vegetable Race		
			H11	Yarab Choed-ba lhab Gay		
	I6	The Child is able to ask permission before taking things and taking leave.	H12	Card Game	H4	Asking Permission
	I7	The Child is able to appreciate acts of honesty.	H13	Gratitude Board	H5	Gratitude Jar
Responsibility	I8	The child is able to identify and follow the Centre's rules.	R1	Follow the Rules	R1	Home Rules
			R2	Sonam Says		
			R3	Twinkle..Twinkle…	R2	Sorting of Items
	I9	The child is able to carry out the assigned roles in a given time.	R4	Making a Book		
			R5	Sorting of Items		

	I10	The child will be able to carry out assigned roles and responsibilities.	R6	Let's Cook Together	R3	Let's Cook Together
			R7	Responsibility Card	R4	Nge Gi Gyenkhu
			R8	Starboard		
			R9	Nge Gi Gyenkhu		
	I11	The child is able to take care of individual belongings and Centre's resources.	R10	Sand Play		
			R11	Nurturing a Plant		
	I12	The child is able to accept one's mistakes.	R12	Sorry! It is My Fault,	R5	Be like Wangyel
	I13	The child is able to be answerable for one's words and action.	R13	Who is Responsible For?		
			R14	I am Responsible		
Fairness	I14	The child is able to take turn.	F1	Memory game	F1	lets Sing!
			F2	Domino		
			F3	Team Colouring		
	I15	The child is able to stay in queue.	F4	In and Out		
			F5	Route Game		
			F6	Knock Down the Bottles		
	I16	The child is able to demonstrate fair play.	F7	Musical run	F2	Ku Ku
			F8	Kado the Rabbit Learns to be Fair		
	I17	The child is able to treat everyone equally.	F9	Experience sharing	F3	Let's be Equal
			F10	Everyone is Equal		
	I18	The child is able to make consultative decisions.	F11	Building Tower	F4	Let's make collage
			F12	Shape Formation		
			F14	Exploring Nature		
			F13	Wool Web		
	I19	The child is able discuss fair and unfair actions	F15	Yarab Choeba	F5	Yarab Choeba

"One of the key attributes that will set us apart from others is the value of integrity. We must be a nation of honest, reliable and trustworthy people."

His Majesty's Address on the 14th RUB Convocation, 2019

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