

## RABSEL: the CERD Educational Journal



ISSN 2957-8019(Online) | ISSN 2077-4966(Print) | 23(1) 1-18

Journal homepage: Journal.pce.edu.bt

### The Impact of Early Child Care and Development in Children: From the lenses of Pre Primary Teachers in Eastern Bhutan

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http//doi.org/10.17102/rabsel.22.1.18| Accepted February 2022 | Published August 2022

#### **Abstract**

This study was conducted to find out if there was any effect of the ECCD program in developing foundational skills in children prior to their enrolling in the formal education system. The study examined the perceptions of pre-primary teachers of 20 rural and urban schools having ECCD attendees with regard to the effectiveness of the ECCD program on children enrolled in pre-primary grades. The study adopted a mixed methods approach with a sample of pre-primary teachers (n=60) from different schools in the Trashi Yangtse district. Some of the key findings of the study reveal that ECCD attendees were found to be more competent in a range of school readiness skills and have strong foundations for formal education. The study also indicated that ECCD attendees have a high level of confidence and perform better in academic subjects.

Keywords: ECCD, Developmental skills, perspectives, domains, and ECCD attendees

### Context of study

In Bhutan, children who complete age five on or before the 5<sup>th</sup> of February are eligible to be enrolled in the formal schooling (pre-primary grade) system (Ministry of Education, 2020). When children enter school at the beginning of an academic year, some arrive with foundational skills. Children who come with the foundational skills are often combined with a high level of self-confidence and self-abilities. It is also this set of students who often possess motivation in learning. Generally, in the Bhutanese context, one of the common ways of obtaining foundational skills is to attend classes in Early Childhood Care and Development (ECCD) centers. Anecdotal records reveal that the children who come with the ECCD background perform better in academics compared to those who do not. It is also found that non-ECCD attendees are shy and lack basic skills. Although there is a general belief that ECCD attendees perform better, no formal research has been carried out on the prevalence of such disparities, and the effect of ECCD programs on the development of critical foundational skills in children.

Foundational skills are critical for children as it has a direct impact on learning in the classroom and academic performance. There is ample evidence that suggests acquiring foundational skills in early childhood is essential for learning since they are considered "important predictors of performance throughout school and into adulthood" (World Development Report, 2018, p.80).

Considering the importance of foundational skills, the ECCD program in Bhutan was introduced in the 9th Five Year Plan (2002-2007) aimed at creating a "conducive and stimulating environment for enhancement of emotional, intellectual and physical development" during early childhood years (Planning Commission of Bhutan 2001, p.41). The program also aimed at "preparing them for school" (Annual Education Report, 2019-2020, p.7). Furthermore, the rectification of the United Nations Convention of the Rights of the Child and Education for All which focused on "expansion of early childhood care and education" as one of the fundamental goals in achieving the learning needs of all by 2015, acted as a catalyst in prioritizing ECCD (ECCD & SEN Division, 2014). Although it has been more than a decade that the ECCD program was introduced in the formal education system, what impact the ECCD has on pre-primary school-going children has never been studied in rural-urban areas of Trashi Yangtse.

There are currently 495 ECCD centers in the country (Annual Education Statistics, 2020), of which, 20 centers are established in rural, semi-urban, and urban

areas of Trashi Yangtse. The distribution of centers in eight *Geogs* was determined by the existence of learners in the areas in that particular period. For example, Bumdelling *geog* has 3, Yangtse 2, Khamdang 4, Tetsho 2, Yallang 3, Ramjar 1, Tongmijangsa 3 and Jamkharamhar 2.

With the financial support from the *dzongkhag*, rigorous training was also provided to the facilitators on the implementation of Early Learning and Development Standards (ELDS) including the six domains viz. i) Physical health, well-being, and motor development; ii) Social and emotional development; iii) Approaches towards learning; iv) Cognition and general knowledge; v) Language, communication and literacy development; and vi) Spiritual, moral and cultural development. Nevertheless, whether or not the ELDS at the center level incorporates the mandates is yet to be ascertained.

World Development Report (2018) indicates that if children are not equipped with developmental skills prior to formal schooling, they are not going to perform well in school. World Development Report (2018) further claims that children are more likely to score poorly in school, repeat grades, drop out before completing primary school, experience poor health throughout life, engage in high-risk behavior, be less productive, and have low earnings if they do not have pre-school skills and experiences.

While the Royal Government of Bhutan has invested huge resources in ECCD centers, whether or not these centers benefit the pre-school children is not known. Hence, there was a compelling need to find out the impact of the ECCD on pre-primary school-going children. The study was guided by the following principle question:

How do the Bhutanese pre-primary teachers perceive the effectiveness of the Early Child Care and Development (ECCD) program on children's developmental skills as they proceed to formal schooling?

To make the study more focused, the central question was divided into the following sub-questions:

- 1. What are the pre-primary teachers' perceptions on the overall preparedness of ECCD attendees for formal schooling in five developmental skills?
- 2. Which skills do the pre-primary teachers perceive as highly learned in ECCD attendees?
- 3. What are teachers' views about children who have attended the ECCD program about their academic achievements?

### Literature Review

There is mounting evidence from around the world proving that the first years of life are critical to the development of a child as they shape cognitive, social, and language skills, as well as lifelong approaches to learning. Van Kleeck and Schuele (2010) consider early childhood years as a key factor for physical, social, emotional, and cognitive development in children to start school. These foundational skills relate to the skills that children possess to undertake a certain level of learning tasks. Kagen, et al., (1995 as cited in Save the Children, 2012, p.8), pointed out five key areas to take into account when considering school readiness:

- 1. Physical well-being and motor development
- 2. Social and emotional development
- 3. Cognition and general knowledge
- 4. Language use
- 5. Approaches to learning (Children's interest, engagement, and motivation to learn)

Maxwell and Clifford (cited in Pekdogan & Akgul, 2016, p.144) state that "school readiness provides children required prior knowledge, skills and opportunities for effective adaptation process that will lead to successful participation in academic life." School readiness is defined as "children's level of easy and sufficient learning without an emotional complexity" (Pekdogan & Akgul, 2016, p.144). As children get equipped with the skills, it becomes easier for them to learn and adapt to the new environment.

In Bhutan, ECCD is a holistic approach and aspires to provide stimulation for children aged 3 –5 years old through a center-based ECCD program incorporating the principle of developmentally appropriate practices within the purview of Bhutanese contextual relevance and cultural integrity. The delivery of quality ECCD programs across the centers is ensured through the National Early Learning Development Standards (NELDS) (Ministry of Education, 2014 as cited in Ministry of Education Bhutan &UNICEF Bhutan, 2020). In many countries, the general health and well-being of children are considered the core of child development (Illinois Early Learning and Development Standards, 2013) as it establishes a crucial foundation for the cognitive, emotional, and psychomotor behaviors required to progress throughout childhood.

The ECCD centers are mandated to address and foster development in the physical well-being, health, and motor skills of children. The NELD Standards ensure

the centers involve children in different activities that enhance children's physical development. For instance, encouraging children to build towers out of blocks, coloring, cutting with scissors, and scribbling with crayons or pencils (ECCD & SEN, 2014).

Social and emotional development is a crucial part of the ECCD center. ECCD centers provide an avenue for children for social development by letting children interact with people other than family members in an emotionally safe learning environment. Children are expected to acquire skills such as identifying and understanding their feelings, accurately reading and comprehending emotional states in others, managing strong emotions and their expression in a constructive manner, regulating one's behavior, developing empathy for others, and establishing and sustaining relationships (ECCD & SEN 2011, p.5). To develop such skills, interaction with peers through play must be regularly encouraged. Furthermore, encouraging children in group discussions and engaging in play embed values; seeking permission, taking turns, respecting, and collaborating with friends. A position statement of the National Association for the Education of Young Children (2009) asserts that a "child's social experiences with other children... may help him develop social skills and confidence that enable him or her to make friends in subsequent years, and these experiences further enhance the child's social competence and academic achievement" (p.12).

The National Education Goals Panel and its Goal One Technical Planning Group identified "approaches to learning" as one of the five aspects of school readiness (Kagan, Moore & Bredekamp, 1995). Hyson (2008) pointed out that approaches towards learning involve children's feelings about learning such as showing interest, pleasure, and motivation to learn, and exhibiting behaviors like paying attention, persistence, flexibility, and self-regulation (as cited in National Association for the Education of Young Children, 2009). Being able to acquire positive learning behaviors and feelings would influence children's school readiness and success when they make a transition from preschool to primary grades.

The center-based early childhood program in the country is expected to offer children enriching opportunities for learning those fuel children's interest, curiosity, and imagination (ECCD &SEN Division, 2014). Such opportunities, in turn, lead to better learning outcomes (World Development Report, 2018).

ECCD and SEN Division (2011) define cognitive skills and general knowledge as "building blocks for school readiness" (p.6). Thus, motivating the cognitive development in children is an important factor in the school success and performance

of children. Children are always believed to be active in seeking to understand the world around them. So, ECCD instructors are required to employ a wide range of strategies and interactions to enhance the cogitative abilities of the children such as making them understand their world, coaxing them to observe what happens, and motivating them to imagine the possibilities. Children should be further encouraged to ask questions and formulate answers (ECCD & SEN, 2014). Would Bhutanese ECCD attendees have such skills when they enter formal schooling? Nevertheless, a study to this effect was never conducted in Bhutan.

It is believed that the foundation for literacy and literacy learning occurs in the context of home, community, and social situations. According to Teale (n.d.), children's progress in reading and writing results from: "(a) adult-child or (sibling-child) interactions, which involves literacy, (b) the child's independent explorations of written language, and (c) observations of others using written language" (p.174). Oral language development also relies on the nature, frequency, and quality of early communicative experiences provided by the facilitators and others (Huttenlocher et al., 2010; Romeo et al., 2018).

The foundational skills and knowledge that children possess in reading and writing before they can read and write are known as literacy skills (Ghoting & Martin-Diaz, 2006). Specifically, these skills are alphabetical knowledge, understanding print, oral language, and phonological and phonemic awareness. These skills are important, and they are closely interrelated, and critical for school success (ECCD & SEN Division, 2012). Hence, the NELDS mandates the facilitators to create stimulating and rich opportunities for children to socialize and share their knowledge via different activities such as noticing words that sound alike, counting syllables in words, storytelling, describing, naming the object, and chanting rhymes and poems and singing songs.

According to Powdyel (2019, p.7), spiritual, moral, and cultural are also considered "Citizenship Education" (p.7). He further states that "the first initiation into citizenship education happens in the family as parents teach their children the values and norms inherited from generations as well as behavior and social codes that are considered appropriate". The norms and values such as the good and bad, notion of right and wrong, and truth and falsehood are learned from parents. Apart from this, ECCD centers have a sacred duty to promote values and ethics such as spiritual, moral, responsibility, honesty, integrity, empathy, and understanding through role models and expected behaviors. A vital responsibility of the facilitators is to introduce children to the key features of their own culture and help them develop a critical appreciation of

and respect for their own and others' beliefs, cultures, and identities. With all these values, children should be able to exhibit respect and love for their culture and country (ECCD & SEN Division, 2014). These skills are crucial to lifelong learning and the holistic development of children.

School readiness program in the form of ECCD in Bhutan, therefore, establishes a strong foundation for children's academic achievement and future success through inculcating the Noble aspiration of Gross National Happiness to "maximize the happiness of all Bhutanese and to enable them to achieve their full and innate potential as human being" (Planning Commission, RGoB, 1999, p.47). The Ministry of Education and UNICEF Bhutan (2020) observe that ECCD programs as providing "strong foundations for learning, lifelong learning development and a smooth transition from early childhood education to school" (p.38). In the same vein, Yoshikawa et al., (2016) claim that the enhancement of children's cognitive skills (e.g., language, literacy and math) greatly hinges on early childhood education experience. The skills such as socialization, behavior, and self-regulation in primary schools are also boosted through early childhood education (Yoshikawa et. al., 2016).

The previous studies indicate that there are strong links between early life, cognitive, and socio-emotional development, and success in school (Currie & Thomas 1999; Deming 2009; Dorji, et al. 2020). It has also been proven that there are significant benefits of providing quality childcare and development for young children from early life. The Organisation for Economic Cooperation and Development(OECD) (2015, p.5) states "one way to significantly decrease gaps in achievement later in life is to provide enriching learning experiences to children well before they enter school."World Development Report (2020) suggests that supporting the development of foundational skills in children in the early years is essential as they contribute to "higher attendance and better achievement in primary school…less likely to repeat, dropout, or need remedial or special education" (p.116).

Many studies have pointed out that there is a significant difference in academic performance between children who attend early childhood education and those who do not attend early childhood education (Guta, Tarekegne, & Tegegne,n.d.; Anderson et.al. 2003). For instance, the 2019 Annual Education Statistics (2019, p.13) agrees that children who have attended an ECCD program "learn better in school compared to those who have not attended the ECCD program." Sabbie and Agyeman (2015) also state that children who had attended early childhood education are more intellectually maturated than children who had no experience in early childhood education.

Moreover, it has been found that children who had pre-school experience were eight times more likely to perform well than those who did not attend pre-school (Anderson, 1994).

Further, from the classroom participation standpoint, Guta et.al. (n.d) argue that pre-school attendees often took an active part in the classrooms, read and wrote better than non-attendees, and played an active role in coordinating group work and did practical activities. Moreover, they paid sufficient attention to the subjects they learned and put adequate effort to understand their teachers' explanations. It was also found that they are well-disciplined in the classroom and regularly participated in class. Furthermore, they completed the homework regularly and took an active role in curricular and co-curricular activities besides asking more questions during the teaching-learning process. Nevertheless, what impact the ECCD has on pre-primary school-going children has never been studied in Trashi Yangtse, Bhutan. Thus, there was a compelling need to conduct thorough research on the effect.

### **Material and Methods**

The 'mixed methods approach was employed in this study – a procedure for collecting, analyzing, and "mixing" both qualitative and quantitative data in a single study to understand a research problem (Creswell, 2012). 'Mixed methods' was chosen since it had advantages over a unitary method of researching. For instance, the researcher could build a study based on the strength of both quantitative and qualitative research methods, and by doing so, it provided a complete picture of the research problem.

### Sample/Participants and Tools

For an in-depth understanding of the impact of ECCD attendees on Bhutanese preprimary teachers, 20 primary schools having ECCD attendees were selected for the study. These schools were from all eight *Geogs* having accessibility to ECCD program. The participants in this study were 60 teachers teaching pre-primary classes (3 from each of the participating schools). Their teaching experiences varied from 1 year to 15 years. To draw out the wider perspectives or best information of ECCD attendees, the sampling was done based on the idea of judgmental or purposive sampling (Etikan, 2017). Hence, the choosing of the study participants was fundamentally on the following criteria: (i) 3 teachers from each of the 20 schools teaching the pre-primary class were selected for survey questionnaires; (ii) all class teachers of 20 schools were selected for interview (Sherab & Dorji, 2013).

Quantitative data were gathered through The International Development and Early Learning Assessment (IDELA) tool. It was adapted to design a teacher survey questionnaire to find out the teachers' perceptions about the preparedness level of the students who attended ECCD program in the five areas of developmental skills. The items of the questionnaires were based on items from questionnaires used in previous studies that examined similar research questions (Denkar, 2019; Guta et.al., n.d). Respondents rated the preparedness level of the children who attended the ECCD program based on the five-point Likert scale. A survey was carried out with all 60 pre-primary teachers.

Qualitative data were gathered through semi-structured interviews (Bogdan & Biklen, 1998; Rubin & Rubin, 1995). It was carried out with a total of 20 class teachers (one class teacher from each participating school). Five parallel questions to collect the qualitative data were employed to guide the researcher in conducting interviews. A minimum of half an hour was required to complete one interview. All interviews were recorded using an Android phone followed by verbatim transcriptions.

### Data analysis of survey questionnaires

The questionnaire responses were recorded in an excel spreadsheet for statistical analysis. For the quantitative data, the frequencies of responses on the questionnaires were calculated, converted into mean and standard deviation, and then compared. The findings from the teachers' questionnaire are presented in two sections corresponding to the first two research questions. Each participant in this study is given a pseudonym as Teacher1, 2, 3... and 60.

### **Results and Discussion**

# RQ1-What are the pre-primary teachers' perceptions on the overall preparedness of ECCD attendees for formal schooling in five developmental skills?

Out of 57 pre-primary teachers who participated in this study (n=30) were males and (n=27) females. Approximately 40% of them had 7-10 years of teaching experience and almost 30% of them had teaching experience for more than 11 years.

The analysis of the data revealed that pre-primary teachers perceive children who have attended an ECCD program to have highly acquired developmental skills in all five domains. Table 1 reveals five domains of developmental skills of ECCD

attendees viz. gross and fine motor development, social and emotional development, emergent and literacy development, emergent numeracy, and approaches to learning. While examining the mean for the five developmental domains, the analysis of the data revealed a slight difference in the perception of pre-primary teachers about the five domains of development. The mean for the teachers' perception of ECCD attendees in gross and fine motor development is the highest and other domains high. However, these findings indicate that there is a slight difference in skills learned in different domains by the children. An overwhelming 100% of the respondents agree that children have acquired the required skills for formal schooling. The slight difference in five developmental skills is evident through the mean and standard deviation as presented in table 1.

Table 1. Overall mean and standard deviation of the five developmental skills (n=60)

Developmental Skills	Mean	SD	%	Interpretation
Gross and fine motor development	4.38	0.07	87.78	Highest
Social and emotional development	4.03	0.12	80.66	High
Emergent and Literacy development	4.07	0.16	81.48	High
Emergent numeracy	3.99	0.11	66.56	High
Approaches to learning	3.88	0.13	77.69	High
Total	4.07	0.12	78.834	High

# RQ2. Which skills do the pre-primary teachers perceive as highly learned in ECCD attendees?

Coming to the question of skills highly learned by children having ECCD experience, 56% "Strongly Agree" and 44% Agree that ECCD attendees can use hand-eye coordination to perform simple tasks (example: copying a shape, stringing beads together). While 49% "Strongly Agree" and 49% "Agree" that ECCD attendees can demonstrate more coordinated movements when engaging in skills, such as running, walking, jumping, skipping, and hopping, a small 2% of participants "Disagree" with the

claim. From the social and emotional development skills, around 42% "Strongly Agree" and 54% agree that children enjoy interaction with teachers and peers, while 4% feel it "Neutral". In terms of whether or not emergent literacy and language skills are developed in ECCD children, 44% "Strongly Agree" and 47% Agree that ECCD attendees can understand and follow instructions/directions. However, a little over 14% "Strongly Agree" that children can write some alphabet and numbers.

Although 7% of pre-primary teachers "Disagree" and 1% "Strongly Disagree" of having learned the skills of emergent numeracy, 37% "Strongly Agree" that children possess the skill of "counting and identifying the number sequences to ten or more". Nonetheless, more than 58% Agree that ECCD attendees have skills in sorting out similarities and differences of objects based on their attributes (sex, color, shape). The analysis of data clearly shows that amongst all the skills, some skills under various domains are learned by the children while attending the ECCD program.

### Data analysis and findings of interview questions

Interview data were analyzed by generating themes and patterns through manual color coding. As interview transcripts were read and reread, different themes emerged which are presented in this section. The findings relating to academic achievement and other skills by children who attended ECCD are highlighted under each section detailed below. Each participant in this study is given a pseudonym as Teacher I, II, III... and XX.

### ECCD attendees were perceived to have achieved skills

Teachers have myriads of perspectives on ECCD attendees about the enhanced developmental skills. However, from the interview responses, 93.33% of pre-primary teachers perceived that gross and fine motor skills are enhanced in children. Moreover, from the face-to-face interviews, more than 73.33% of teachers stressed that ECCD attendees have acquired listening and speaking skills as they can communicate well in the classroom. For instance, Teacher (IV) expressed, "ECCD attended children listen carefully while teaching and are attentive. They are open and communicate very well in my subject". Similarly, Teacher (II) asserted that "children who have [sic] attended ECCD understand quite fast and can follow directions more easily than non-ECCD attendees. They can also convey their ideas".

Over 60% of the teachers felt that ECCD attendees acquired social skills. ECCD attendees found that they can easily socialize with other children. They get more friends within the class and outside. This indicates that attending ECCD program has helped in enhancing social skills in children before formal schooling.

### ECCD attendees were perceived to be confident

Regarding the confidence of the ECCD attendees, an overwhelming 80% of teachers said children having ECCD experiences are more confident in school than non-attendees. For instance, Teacher III conveyed that most ECCD attendees come forward to assist teachers and friends when in need. Besides, in any activity, they volunteer to answer most of the time in the class.

They have the ability to express their ideas and thoughts confidently. This claim is evident from the following excerpt from the interview data:

ECCD attendees are more willingly taking-up leadership roles during group activities and show a willingness to help other friends during classroom discussions. I have found significant differences between children who have attended ECCD and those without ECCD experiences. (Teacher XIII).

ECCD attendees have a sense that they should respect teachers and they greet us whenever we meet in the morning. They are friendlier and not shy. (Teacher V)

...when children come to school in the morning, ECCD attendees do not require parents or elders to reach them to school. They enjoy coming to school themselves. (Teacher IX).

Findings from the analysis of the data indicated that ECCD attendees displayed a range of behaviors that helped them adjust to a new environment effortlessly. It can be said that ECCD program has helped in developing confidence in children thereby preparing children's readiness for formal schooling.

### ECCD attendees excel in academic performance

Responses collected from face-to-face interviews indicated that more than 73.33% of participants perceived that ECCD attendees topped the class, be it formative or summative assessments across three curriculum disciplines- English, Dzongkha, and Mathematics. They are also found to be active in class participation during the teaching-learning process. About 53.33% of participants also pointed out children can quickly grasp the concepts taught through their prior knowledge. Furthermore, Teachers IV, VI, IX, X, and XVIII mentioned that having prior knowledge and experiences from ECCD programs significantly up-scaled the overall performance of the class. However, Teacher XII conveyed this idea quite differently:

ECCD experiences may not directly determine the achievement of an individual child as there may be other factors influencing the achievements...Nevertheless, it does upscale the overall achievement of the class since the children easily apply their prior knowledge and cope with the existing situations. (Interview, 13/8/2021).

### ECCD attendees participate proactively in the learning process

When it comes to classroom participation, children with ECCD experiences are found to be participating proactively in the teaching-learning process (expressed by Teachers II, III, IV, VII, XI, XIII, and XV). The findings reveal that 66.6% of respondents believed that ECCD attendees exhibit a keen interest in learning in the classrooms. For instance, Teacher VIII asserted, "ECCD attended children show interest in learning. They ask questions frequently, and attentive in the class. They are also eager to learn new things".

Responses from the interviews also indicated that children with ECCD experiences enjoy and concentrate on learning. They collaborate with teachers by shouldering leadership responsibilities such as group leaders and book captains (Teachers IV, VI, VIII, IX, and XIII).

### **Findings and Discussions**

One of the objectives of the ECCD and SEN states thus: "Provide care and support for the holistic development of the children and also to ensure the smooth transition of the children to the formal schooling" (ECCD & SEN Division 2011, p.2). In the same vein, Annual Education Report claims that the ECCD program aspires to be "preparing children for schooling" (Annual Education Report 2020, p.12).

Firstly, findings from this study show that there is strong evidence to indicate that the ECCD program has a great impact on preschool children in readying them for formal schooling. Therefore, when it comes to the question of whether or not the ECCD program prepares children for formal schooling in terms of developmental skills, the answer is 'Yes' for this group of students as indicated by the teachers' perceptions. The finding indicates that these children who have attended ECCD have strong foundations and are perceived by the teachers as ready for formal education. A similar perception was also shared by pre-primary teachers in an impact evaluation study of the ECCD program in Bhutan conducted by the Ministry of Education and UNICEF Bhutan (2020). Thus, the finding is in alignment with the objective of ECCD and SEN Division, Ministry of Education.

Secondly, taking into consideration the findings of both quantitative and qualitative data, the majority of participants agreed that the ECCD attendees lag behind in emergent numeracy and approaches to learning skills as compared to the other three domains. However, they promulgate that focusing on these two domains can further enhance children's performance in school.

Thirdly, the study found that pre-primary teachers' perceptions in relation to the highly learned skills by ECCD attendees have no vast difference. The findings indicate that most of the ECCD attendees are well-equipped with fine and gross motor skills such as running, walking, jumping, skipping, and hopping, and use hand-eye coordination to perform simple tasks (e.g., copying a shape, stringing beads together). The study indicates that almost all children have developed listening and speaking skills. Yet, almost all of them agree that all ECCD attendees possess some skills that make them easier to learn in the classroom and can easily adapt and adjust to the new environment of the school setting.

Fourth, the findings of the study reveal that ECCD attendees are proactive in classroom participation, be it in showing interest in learning, asking questions, completing tasks on time, or helping others during group activities. The study also indicates that they excel in academic achievement. It is opined that ECCD attendees learn faster and perform better as they are already experienced and exposed to the basic skills. This finding is consistent with the studies carried out by Mwaba et.al. (2016) who found that pupils who attended pre-school prior to enrollment in primary school perform better than their counterparts without pre-school experience. The finding is also in line with Gibbs, Ludwig, and Milner (2011) whose results of the Head Start Impact Study (HSIS) found positive effects on medium and long-term outcomes of early childhood education such as improved test scores and high school progression rates for pupils that attended pre-school as compared to non-pre-school attendees.

In brief, ECCD program is found to have an impact on developing and enhancing foundational skills in children of 3-5 years of age. These foundational skills seemed to have a positive influence when the children enter the formal education system.

### **Conclusion**

This study investigated the perceptions of pre-primary teachers on ECCD attendees in the eastern district of Trashi Yangtse. The findings have implications for education policy, donor agencies, and ECCD facilitators across the country. It is crucial to inquire whether the ECCD program in the country is helping children in readying for formal schooling as aimed by the Ministry of Education. Therefore, it is the need of the hour that the in-service program offered at Paro College of Education for ECCD facilitators and the Ministry of Education re-align the program and policies to check if they cater to the needs of the children. Helping to develop five areas of developmental skills in children in ECCD center is not the sole responsibility of ECCD facilitators. Other stakeholders such as Teacher Education College (Paro), parents, the Ministry of Education, and other NGOs are involved in it. Nevertheless, further research focused on perceptions of pre-primary teachers on ECCD attendees of other districts would provide more insights into the effectiveness of ECCD in readying for formal schools in Bhutan.

### **Competing interests**

No competing interests exist.

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