

Developmental Milestones of Children and Learning through Play in Ethiopian Early Childhood Care and Education Centers

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Abstract

It is a widely accepted fact that a good quality preschool has the potential to break inter-generational poverty cycles. In relation to this, the Dakar Framework of Action indicates that working in preschool education has to be the major concern of all nations of the world. One aspect of increased quality for preschool is applying Learning Through Play (LTP), a concept used, in education and psychology, to describe how children can learn to make sense of the world around them. Through play, children can develop social and cognitive skills, mature emotionally, and gain the self-confidence required to engage in new experiences and environment which can help them create images in their mind that can do with their feelings, thoughts and ideas. The main objective of this work was to examine the experiences of LTP and if children achieved their developmental milestones. To this end, a mixed methods research approach was used and both qualitative and quantitative data were collected from 105 preschool facilitators and 29 curriculum/education experts in 46 selected preschool centers in the country. Although the scarcity of indoor and outdoor playing materials stood as the critical problem in most government-owned preschool centers, most of the facilitators and curriculum experts were aware of the importance of LTP and those, who were familiar with the curriculum, asserted that it ensured LTP. Inconsistencies were observed in the use of play for learning, despite the fact that most of the respondents were aware of its relevance. The study also revealed that most children accomplished more than 80% of the developmental milestones set for their physical and emotional developments. However, they failed to achieve important cognitive, language and social developmental milestones. As indoor plays are the least understood and traditional or locally-made play materials are less used, capacity building trainings on how to implement LTP and prepare and use traditional play materials from the locally available resources is recommended. Best experiences in this regard should be shared and replicated.

Keywords: LTP, developmental milestones, early childhood care and education.

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1. Introduction

Until the 1950s, one of the main conceptions of how children learn was characterized by the perception that children were passive receptors of information from the world around them. In the traditional schooling system, children were learning, and their interaction with the environment was based on the assumption that rejects their active participation. However, advances in science and technology gave way to the emergence of concepts including Piaget's theory of cognitive and affective development (Wadsworth 2004), which contributed to the revolution in the understanding of children's cognitive development. In this new concept, it is assumed that children actively comprehend, organize, select, and process their experiences with the surrounding environment. They eventually are able to use their knowledge to solve problems and adapt to their environments (Crain 2014; Rye 2001).

In the new concept of children's learning about the world around them, it is assumed that children actively comprehend, organize, select, and process their experiences with the surrounding environment and they, eventually, would be able to take their knowledge and use it to solve problems and adapt to their environments (Crain 2014; Rye, 2001). Cognizant of this principle, sources show that the Government of Ethiopia recognizes the importance of Early Childhood Care and Education (ECCE) as a critical period that requires due attention and a great deal of investment and as a mechanism in accelerating the attainment of 'Education for All (EFA)' and Millennium Development Goal (MDG) (EFAGMR 2012).

Generally, it is a widely accepted fact that good quality preschool has the potential to break intergenerational poverty cycles (Myers 2004). EFA has made it a vital issue to contribute its share in raising quality of education. Hence, Ethiopia strives to ensure that all children access and receive quality education so that they can realize their full potentials. In relation to this, the Dakar Framework of Action indicates that working in preschools education continues to be the major concern of all nations of the world (WEF 2000).

Learning through Play (LTP) (that matches developmental stages) is a thematic area which is dedicated to address the minimal access to preschool

programs and the insufficient quality of pre-primary education. LTP is a concept used in education and psychology to describe how children can learn to make sense of the world around them. Through play, children can develop social and cognitive skills, mature emotionally, and gain the self-confidence required to engage in new experiences and environment to create images in their minds which have to do with their feelings, thoughts and ideas (Bruce 2011).

Thus, this research was conducted focusing on children aged three to six years with the rationale that Early Childhood Care and Education has the potential to break inter-generational poverty cycles. The expression ‘Early Childhood Care and Education’ is used interchangeably with other terms, such as Early Childhood Care and Development (ECCD), Early Childhood and Education (ECE) and Early Childhood and Development (ECD). Nonetheless, the Ethiopian government decided to use ECCE. ECCD encompasses all and is a general classification that refers to the processes by which children, from birth to seven years of age, grow and flourish socially, physically, mentally, emotionally and morally (National ECCE Curriculum Assessment, 2015). The objective of this study was, therefore, to examine the extent to which children aged three to six years learn through play; assess if traditional plays are employed; and identify the challenges faced by preschool facilitators in implementing the LTP.

2. Methodology

2.1. Research design

This study was undertaken in nine regional states and two city administrations of Ethiopia. The data were collected during the national ECCE Curriculum Implementation Assessment (FMoE 2015) study (which took ten months). Schools were sampled to give acceptable representation of the whole population. Data regarding the use of LTP and developmental milestones were also collected during that time. Mixed methods designs involving both quantitative and qualitative research were employed as they allow both breadth and depth of data and corroboration (Creswell and Clark 2011).

2.2. Sampling techniques

The population of this study included those who were used for the National Preschool Curriculum Assessment study that included all facilitators and directors of private preschool Centres in all the nine regional states and the two city administrations of Ethiopia. A multistage sampling procedure was employed in the selection of participants. The main sampling units were Preschool Centers, where the actual practice of using LTP took place. According to the FMoE (2012), there were 3,580 preschool centers in the country distributed over the nine regions and the two city administrations.

Purposive and availability sampling, clustered by each region, were employed. Hence, attempt was made to consider all the regions and city administrations as far as resources allowed. Then among the sample size, 96 preschool centers (calculated with precision level sampling error of 0.1), were sampled using quota sampling (Table 1). Finally, convenience and simple random sampling were used to reach the actual sample size of each region for time and financial reasons.

Table 1. Kindergarten (KG) Population by Regions and City Administrations

Regions	No. of KGs	Sample Size (+/- 10%)	Actual
Tigray	170	4.55	4
Afar	25	0.67	1
Amhara	384	10.29	10
Oromia	1282	34.37	34
Somali	0	0	1
Benishangul Gumuz	35	0.93	1
SNNPR	554	14.85	15
Gambella	16	0.42	1
Harari	30	0.80	1
Addis Ababa	1013	27.16	27
Dire Dawa	71	1.93	2
Total	3580	95.97	97

Source: Ethiopian Education Statistics Annual Abstract (2011/2012).

All the Preschool facilitators and center heads, who were available at the time of data collection in the sampled preschool centers, were respondents of the study. Each center compound and one randomly chosen preschool class were observed. Moreover, key informant interview (KII) was conducted with one *Woreda* curriculum expert for each region in the nearby preschool centers. The experiences of the case study preschools were

captured by using snowball sampling technique and based on the observations made in the actual setting. Table 2 summarises samples and sampling techniques.

Table 2. Summary of Samples and Sampling Technique

Stages of sampling	Sample space	Sample	Sampling technique
<i>Stage 1</i>	All regions	Tigray, Afar, Amhara, Oromia, SNNPR, Benishangul Gumuz, Gambella, Harrari, Somali, Afar, Addis Ababa City Administration, Dire Dawa City Administration,	Purposive and availability sampling
<i>Stage 2</i>	All regions	96 preschool centers	Stratified and quota/ proportionate sampling (0.1 precision level))
<i>Stage 3</i>	Preschool centers	Tigray (4), Afar (1), Amhara (10), Oromiya (34), Somali (01), BenishangulGumuz (1), SNNPR (15), Gambella (1), Harari (1), Addis Ababa (27), Dire Dawa (2)	Quota/proportionate sampling
<i>Stage 4</i>	Preschool center facilitators/ heads	All the sampled centers	Availability and convenience sampling
<i>Stage 5</i>	Each preschool center compound and one randomly chosen class	All the sampled centers	Availability and simple random sampling
<i>Stage 6</i>	One Education or curriculum expert in the nearby <i>Woredal</i> region/city administration.	11 regional/ zonal/ Woreda Education/Curriculum experts in the nearby Woreda/ region/city administration to the preschool centers	Purposive and availability sampling
<i>Stage 7</i>	Case studies	Case studies (extra ordinary cases)	Snowball sampling and actual observations

Moreover, the study areas were clustered into five convenient survey areas (I–IV) which incorporated all the regions and city administrations and the pilot team members. Key informants, who could provide the needed

information, were *Woreda* Preschool/curriculum experts or Preschool focal persons. The pilot study was conducted in one randomly selected *Woreda* of SNNPR, which was excluded in the main study.

Data were collected from both primary and secondary sources. The primary data were generated mainly from children, preschool facilitators/center heads, curriculum or education experts, and preschool focal persons. Besides existing studies, rules and regulations, policies, strategies, international frameworks, were used as secondary sources of information. Quantitative data was collected by using structured questionnaires, while key informant interview guides and case study were employed to collect qualitative data. Key informant interview guide and classroom and school environment observation checklists were also used in the study. Data collection instruments were pre-tested to secure the validity and reliability of the work and the main field work was conducted after making the necessary modifications on the instruments. The APA standard was followed in dealing with ethical considerations (APA 2017). Informed consent was also obtained from all respondents.

3. Results and Discussion

The implication of early childhood experiences on the future development and schooling of children has been acknowledged both by researchers and practitioners (Bruce 2011). Psychologists, in general, and developmental psychologists, in particular, give due attention to the first few years of a child's life that establish the foundation upon which the child grows and develops.

Both qualitative and quantitative data were collected from study participants of 105 preschool facilitators, 29 curriculum or education experts, and 46 preschool centers that were selected using both probability and non-probability sampling techniques. The data collected were analysed using quantitative and qualitative methods of data analysis.

3.1. The issue of children aged three to six years Learn Through Play (LTP)

Play, in most of the cases, is understood as the time of routines that are not usually directed for teaching. It could be dancing or singing for fun or

enjoyment and sometimes learning letters and numbers by music. Although the scarcity of indoor and outdoor playing materials stands as a critical problem in most government-owned preschool centers, the facilitators and curriculum experts who participated in this study were, with few exceptions, aware of the importance of LTP and those, who were familiar with the curriculum, asserted that it ensured LTP. The majority of the facilitators/center heads (62.7%) agreed that the National Preschool Curriculum ensured LTP for children aged three to six years and employed traditional plays in teaching (Table 3).

Table 3. Whether the National Preschool Curriculum ensures children aged 3–6 years to learn through play

The curriculum is ensuring LTP to children aged three to six years	Frequency	Percent
Missing	7	11.9
Yes	37	62.7
No	15	25.4
Total	59	100.0

KIIs shared their views regarding whether the National Preschool Curriculum ensured LTP and whether preschool centers employed traditional plays in teaching children aged three to six years. Experts in SNNPR agreed that, with few exceptions, LTP was very important for the child’s development. However, they explained, with a deep concern, that they could get neither the national preschool curriculum nor orientation and manuals on how to implement it. The education expert in Arsi Neggele *Woreda*, unlike the one in Halaba Qulito *Woreda*, explained that some centers like Lalisa were using LTP with NGO intervention. The expert added that, despite the absence of the national preschool curriculum, most facilitators were trained and applied LTP with the minimum play materials they had and traditionally-made materials as well as traditional plays, like story teller "*Oduu Durii*", and drawing lines on the ground for their physical and cognitive development "*Lakkii Lakkicho*". The expert at Halaba noted that they did not have budget to buy play materials, as the sector had no owner, no training on how to use LTP, except the traditional outdoor plays and songs, for the play classes. The KI at Welaita Sodo also mentioned that

traditional play materials, made of bamboo, were used in the centers. The case in Addis Ababa was different. Most preschool centers had the national preschool curriculum, though they were not implementing it.

Similarly, in Tigray, the training on LTP for preschool teachers and *Woreda* experts created understanding about the importance and, to some extent, practical use of play in teaching children. All key informants in Adwa, Axum and Ahferom districts believed that visible change was witnessed in the use of play in teaching children; and that was instrumental in ensuring the development of physical, emotional and cognitive skill of children.

Moreover, around Adwa including Ahferom and Axum, the concept of LTP was a very popular and well bought idea because of the LTP project implemented by Adwa Teachers' Training College. Everybody in office was, at least, well aware of the importance of play in teaching young children in preschool centers. Most of the key informants, involved in this interview, were not confident if the curriculum materials addressed LTP or not. However, from their observation, they knew that teachers in preschool or kindergarten used play in their teaching.

The key informants from Axum Town Education Office commented that the syllabus prescribed play as a method; however, it did not indicate types of play appropriate to nurture the competence of children in each area of domains. Neither did it show traditional plays. Though the National Preschool Syllabus did not specify play activities, in Addis Ababa, all centers (private, government or community-owned) were using other teaching materials, which were prepared based on the objective of the syllabus that showed appropriate plays for each specific learning competence.

Scarcity of indoor and outdoor playing materials was the most critical problem in government-owned preschool centers in Tigray. Some of the experts in Oromia also agreed that LTP was very important for the child's development. The expert from Wulinchiti *Woreda* indicated that play was included in the syllabus but not sufficiently. The expert in Ada'a indicated that he knew about the development of syllabus at national level, but no one sent this material to the *Woreda*. He further emphasized that curricular

materials did not exist in Afan Oromo language, and there was lack of budget to buy playing materials. The experts in Dera and Meki mentioned that they knew nothing about play. The expert in Adama said that he knew nothing about the syllabus.

Asked about the extent of implementation of the preschool curriculum in a manner that ensured learning through play, the key informants in the Amhara region indicated that play was more exercised in government schools than in private ones. One key informant pointed out that, in government schools, play was highly implemented. In private schools, however, more value was given to numeracy and literacy rather than to play, because parents wanted to see their children read and write early on.”

As to employing traditional plays to teach children, all the key informants agreed that contextual dances and songs were used. In line with this, one KI (Kawot *Woreda* - Rural) said, “yes, we use traditional plays, songs and dances because we do not have outdoor play materials. Hence, the children are made to learn through traditional songs, dances, and plays such as hide and seek.”

The respondents who did not know about the National Preschool Curriculum in Amhara region indicated that it was unfair to ask whether the curriculum addressed play or not. On the other hand, those who confirmed the presence of the National Preschool Curriculum in their *woreda*, believed that it was more of play than education. One key informant (AA - Kolfe Keranio) pointed out: “yes, it addresses play. But its weakness is that it gives more weight to play than to education. This has not been appreciated by the preschool centers. The rationale is that it should give more emphasis to education than to play”. Another KI (Debre Berhan) also pointed out that “the National Preschool curriculum addresses play. This can be taken as a strong side of it. We, however, have a problem to fully implement it for there is shortage of play materials at the centers”.

The experts from Gambella, Afar and Somali admitted that they did not know about the national syllabus and play. The experts from Benishangul Gumuz-Assosa, Dire Dawa and Harari indicated that LTP was very

important for the child's development and indicated that play was included in the syllabus. The expert from Benishangul Gumuz - Assosa, further added that children exercised play through role play, peer play, drama, and storytelling, among others. Except the expert from Afar, who did not have the idea on how the preschool syllabus had to be implemented, all agreed that children learned through play, be it in private or government KGs. In Harari, Dire Dawa, Benishangul Gumuz - Assosa, and Gambella, it was indicated that children used traditional play.

Inconsistent results were found regarding how much of their time facilitators spent for play in the center (Table 4). About 27% of them stated that they spent 50% of the day playing; 19.4% said that they spent 70% of their time for the purpose. Play, in this case, was, meant routines that were not usually directed towards teaching. It could be dancing or singing for fun or enjoyment and sometimes learning letters and numbers by music.

Table 4. Per cent of the day children play

Percent of day spent on play	Respondents	
	No.	%
25	3	4.2
30	1	1.4
35	1	1.4
40	6	8.3
50	20	27.8
60	4	5.6
65	2	2.8
70	14	19.4
75	7	9.7
80	3	4.2
85	4	5.6
90	6	8.3
100	1	1.4
Total	72	100.0

3.2. The developmental milestones of children aged four to five years

The status of children aged four to five years was assessed mainly by focusing on four important pillars: 1) Gross and Fine Motor, 2) Language, 3) Cognitive, and 4) Social and Emotional. The results of the study showed

that some children performed the milestones set for their age successfully, while others did not.

Developmental tasks are tasks that are expected to be achieved by a child at a given stage of development in the areas of physical, linguistic, socio-emotional and cognitive aspects of development. According to psychologists, successful accomplishment of these tasks would enhance a child's adjustment to the next stage of development. Hence, successful achievement of these developmental milestones becomes very crucial for young children since their future development and learning heavily rely on their earlier experiences.

The study, thus, assessed the developmental status of children aged four to five years by focusing on the extent to which children had successfully accomplished these developmental milestones appropriate to their age. For this purpose, 22 very important developmental milestone items, that would represent the aspects of development, were identified and included in the Child Development Assessment Observation Tool for the middle age category (Table 5).

The data in Table 5 revealed that most children who participated in the study had achieved most physical developmental milestones set for their age except item 12 (telling longer stories), which was successfully achieved only by 41.3%. A low proportion (26.1%) of children also accomplished item 6 (drawing a person with body), followed by the lowest accomplishment in item 22 (showing more independence...). The other accomplishments ranged from 78.3% for item 12 (using the future tense) to 97.8% for item 1 (standing on one foot for ten seconds or longer). The findings showed that most children accomplished more than 80% of the developmental milestones set for their physical and emotional developments, even though they failed to achieve important cognitive, language and social developmental milestones (items 7, 13 and 22).

The achievement of most of the physical developmental milestones by most children can be justifiable as the developmental tasks can be achieved even outside the preschool compound, in home and community environments.

They can be developed, for example, as children are engaged in assisting parents in doing small household chores.

Table 5. The achievement of developmental milestones of children aged four to five years

Child developmental milestones	Yes		No		Missing	
	<i>Freq.</i>	<i>%</i>	<i>Freq.</i>	<i>%</i>	<i>Freq.</i>	<i>%</i>
1 Hops	44	95.7	2	4.3	-	-
2 Stands on one foot for ten seconds or longer	45	97.8	1	2.2	-	-
3 Swings, climbs	43	93.5	1	2.2	2	4.3
4 May be able to skip	40	87.0	4	8.7	2	4.3
5 Copies triangle and other geometric patterns	42	91.3	4	8.7	-	-
6 Draws a person with body	12	26.1	32	69.6	2	4.3
7 Prints some letters	40	87.0	5	10.9	1	2.2
8 Dresses and undresses without assistance	37	80.4	6	13.0	3	6.5
9 Recalls part of a story	41	89.1	4	8.7	1	2.2
10 Speaks sentences of more than five words	43	93.5	2	4.3	1	2.2
11 Uses future tense	36	78.3	8	17.4	2	4.3
12 Tells longer stories	19	41.3	25	54.3	2	4.3
13 Can count ten or more objects	42	91.3	1	2.2	3	6.5
14 Says name and address	41	89.1	2	4.3	3	6.5
15 Better understands the concept of time	42	91.3	4	8.7	-	-
16 Correctly names at least four colours	40	87.0	6	13.0	-	-
17 Knows about things used every day in the home (money, food, appliances)	39	84.8	7	15.2	-	-
18 Wants to be like friends	41	89.1	4	8.7	1	2.2
19 Wants to please friends	40	87.0	4	8.7	2	4.3
20 More likely to agree to rules	42	91.3	1	2.2	3	6.5
21 Likes to sing, dance, and act	42	91.3	3	6.5	1	2.2
22 Shows more independence and may even visit next door neighbour by herself	6	13.0	34	73.9	6	13.0

In addition, this was confirmed by key informants who participated in the in-depth interview and emphatically expressed the relevance of preschool

programs for improving children's growth, development and learning. One of the KIs said:

Preschool programs are very much relevant both for the optimal development of children and formal schooling. These programs will help children to socialize and get motivated for formal schooling. The programs will also prepare children very well for formal schooling compared to their counterparts that did not get similar background.

3.2.1. Children with additional needs

The interviewer observed very few children with disabilities in some preschool centers who were older than the age group. Key informants stressed that, when it came to the issue of children with disabilities, little was done so far in the *Woreda*. Those children stayed at home for fear of bullying and teasing by students without disabilities in the schools and centers. The KI said that parents of children with disabilities were aware of the advantage of sending their children to school or to preschool programs. However, because families feared that their children would be teased at, or centers were inaccessible, or there was lack of skilled human resource in Special Needs Education in the *Woreda*, children with disabilities were left behind. As noted by the KI, inclusion of children with disabilities in the preschool programs in that *Woreda* seemed totally forgotten and the "School for All" issue was not well-thought out.

In addition, lack of professionals and lack of short-term training opportunities for facilitators on Special Needs Education remained the main barriers. The KIs suggested that NGOs and other concerned bodies should work hard to solve preschool problems and to make KGs accessible for all children, including children with disabilities or to establish a preschool for all environments. The KIs in Arsi Neggele and Welaita Sodo did not deny the importance of opening preschool for children with disabilities in a separate setting, if it was not possible / or if it took time to accommodate them in regular programs. A KI emphasized that, as it was a new trend, accommodating children with disabilities demanded team approach and engagement in the program.

3.3. The status of preschool centers

Preschool class and compound observations were made using observation checklists. Their status varied from center to center (Table 6). The Classroom/Facilitator observations revealed that more than 50% of classrooms/compounds had or accomplished the items listed in Table 6. The ECCE centers have outdoor playing field (82.6%) and outdoor playing/learning materials (73.9%).

Table 6. Results of the classroom/compound observation checklist

Observation Themes In the class:	Yes		No	
	Freq	%	Freq	%
1 has indoor playing/learning materials	25	54.3	21	46.0
2 uses locally made learning/ play materials	27	58.7	19	41.0
3 uses indoor playing/learning material	26	56.5	20	44.0
4 uses play for daily routines	33	71.7	13	28.0
5 uses play while teaching (applies LTP)	25	54.3	21	46.0
6 Has outdoor playing field	38	82.6	8	17.4
7 Uses outdoor playing/learning materials	34	73.9	12	26.1

3.4. Challenges encountered by preschool facilitators in using LTP

3.4.1. Budgetary and material challenges

The KIs were asked about the challenges encountered by preschool facilitators in using LTP in their *woreda*. All the KIs in SNNPR agreed on material and budget constraints. According to KIs in Tigray, the major challenges, encountered by preschool facilitators, included unavailability of teacher's guide and children textbooks to practice the syllabus, lack of training and orientation to teachers on how to use LTP, material and budget limitation to fully equip preschools with the necessary playing materials, and lack of skilled and well-trained professionals, at *woreda* level, to supervise and support preschool teachers. These critical areas were identified as needing improvement to ensure high quality of learning in KGs/preschool centers. However, in Addis Ababa, KGs are relatively better equipped with learning/playing materials.

3.4.2. Lack of awareness in LTP

When KIs in Oromia were asked about such challenges, all of them said that they were unaware of the extent to which play was implemented. However, the expert from Wulinchiti *woreda* indicated that, despite the fact that play was not sufficiently included in the syllabus, facilitators tried to include play in the syllabus to the best of their capacities. Some preschool centers and facilitators fully applied play in and out of the classroom and some used it to a limited extent. The experts commented that the issue of play was based on will of the preschool centers. Similarly, the focal person from Ada'a explained the implementation of play from two perspectives. The first one was facilitators working in the Lead for Education Achievement and Progress (LEAP) project, which was supported by Christian Children's Fund of Canada (CCFC), and who were trained in play and preschool, in a way, implemented LTP adequately. The other one was that LTP was not implemented in government preschool centers as facilitators were low-paid (the government did not allocate budget and the community was mainly responsible for their salary), did not have training on play and preschool, there were no curriculum materials, and there was lack of well-trained professionals in preschool in the *woreda*.

3.4.3. Lack of qualified facilitators

Regarding challenges faced by preschool facilitators to implement LTP in government schools, the KIs in Amhara region mentioned shortage or lack of trained facilitators, play materials, national curriculum, and awareness on the part of educational leaders, at all levels, about the importance of preschool education as drawbacks to implement LTP effectively. In line with this, one KI (Kawot *Woreda*-Rural) said, "Since children come to school without lunch or any type of food to eat, they resist learning and do not stay happily in the center for a long time."

To sum up, all experts agreed that there were challenges in using LTP. Those challenges included lack of common preschool curricular materials, including children's books and teachers' guides, shortage of trained facilitators and preschool focal persons, budget constraint, shortage of

conducive environment (compound) for preschool, lack of playing materials, teachers' turnover.

3.5. 'Best' experiences in using LTP

Experts were also asked about the success stories of their respective *woreda* schools under their leaderships and areas of improvement in the future. Accordingly, the following were pointed out as achievements and areas for improvement. Governmental zero-classes, which were changed to formal KGs, were mentioned below as success stories.

3.5.1. Success stories/ best experiences

In Amhara region, efforts made to get support from NGOs and other organizations to obtain play materials and pledges made to construct classrooms and provide supplementary books, were conceived as the best experiences in the region. In Oromia region, support from an NGO helped government preschool center to have a resource corner in the class, with better indoor and outdoor play facilities. In addition, better salary for facilitators could be seen as motivating for success. However, it is worth mentioning that the infrastructure (the road) to and from the school to the *woreda* towns needed serious improvement.

In SNNPR, the conversion of government zero-classes to preschool centers allowed availability of indoor and outdoor play facilities at those preschool centers. That experience could be considered 'good', which other regions should learn from. Furthermore, preschool centers used the curriculum designed for three consecutive years, with age-appropriate three different levels, as opposed to zero-classes, which dumped all ages of children in one class for one year only.

3.6. Inconsistencies in using LTP

The KIs in SNNPR generally listed several inconsistencies among preschool centers in using LTP:

- Some preschool centers, which were supported by NGOs and given in-service training and play materials, used LTP in teaching while others used LTP as a mere play outside the classroom.

- The quality of the preschool classes and compounds and availability of local and purchased play materials varied among preschool centers. Some government centers had child-appropriate seats, toilets and clean preschool compounds. Play materials were also of diverse quality. Some preschool centers had play materials made from locally-available materials while others purchased modern materials.

As KIs in Tigray mentioned, the performance and use of curriculum materials varied along with the experience and training of the preschool teachers. Some were very creative and enthusiastic in teaching children using play. The types of play they used were many and varied. Songs, stories, games and physical exercises were used; and those encompassed the development of all five areas of competencies. However, such kind of skilled teachers were so rare that most classes were dominated by traditional teaching. Moreover, some preschool centers used outdoor play materials which were hand-made from the locally-available materials and yet others bought outdoor play materials.

3.7. Conclusion and Recommendations

The findings generally revealed low level of participation of children with disabilities in preschool program. There were only G-0 (preschool like zero-classes) in rural settings. However, the remaining types of preschool centers were not found in rural settings. What is more, the faith-based organization (FBO) preschool centers mixed more of pray than play in teaching children. There was little high-quality government preschool program in most *woredas*; and the Preschool programs run by the government hardly met the minimum requirement to be considered as good quality preschool program. However, it was noted that, in some *Woredas*, former zero-classes, which used to be run by the government, were almost changed to formal preschool programs. The experience in using LTP in one *woreda*, which was remarkable, should be replicated to other *woredas* as well. Facilitators had knowledge about the national preschool curriculum designed in terms of the physical, cognitive, language and socio-emotional developments of children aged 3–6 years. However, children in the ages of four to five years failed to

demonstrate most of the developmental milestones except those for physical development.

There is also a need to develop locally-adapted curricular materials, including facilitators' guide, where the syllabus can be broken down into lessons which consist of all forms of play, including culturally relevant and sensitive stories, songs, and games. There is also a need to integrate LTP in facilitators' training to effectively implement LTP as prescribed in the curriculum. Indoor plays are the least understood and traditional or locally-made play materials are less used due to both lack of materials and knowledge and skill gaps among preschool facilitators. Given the scarcity of LTP materials and resource, the FMoE, in collaboration with stakeholders, has to develop short-term training opportunities that can address knowledge and skill gaps among facilitators in teaching children using LTP approach.

This work saw LTP and developmental milestones of children separately. Hence, there is a need for experimental research to see how LTP and developmental milestones are interrelated in our context.

Acknowledgements

This work was financed by CCFC and the extracted article is submitted as a dissemination strategy to reach different audiences. It was also presented to different stakeholders and conferences as some other dissemination strategies. The author therefore gives credit to CCFC and to those experts involved in the fieldwork, in giving important feedback during presentations and on the report.

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- be free of jargon and local slang;
- have appropriate and adequate illustrative material, all of which should be relevant to the subject of the report;
- not contain any plagiarized material (plagiarism is a serious offence and is a serious charge against an author).

Regarding length, the manuscript should:

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- be 25– 40 pages. However, longer articles are also acceptable if the length is necessitated by richness of a monolithic content, which cannot be presented in separate articles.
- contain proportional and adequate coverage of the major sections of the paper.
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Before submitting the manuscripts for publication in EJDR, authors are required to follow the following styles and formats, which are widely used in academic journals in development studies and the social sciences.

In terms of structure, articles should follow the TAIMRAD(C/R) format, where the acronym stands for: 1) Title page; 2) Abstract; 3) Introduction; 4) Materials and Methods; 5) Results and Discussion of Implications (either harmonised together or presented as subsequent sections); 6) Conclusions/Recommendations.

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1.1. The following shall appear on the Title Page:

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 - describe the contents/the subject of the paper accurately and specifically within the limits of space;
 - avoid abbreviations, formulas and jargon;
 - usually omit the verb and is only a label;
 - be easy to understand and recall, as well; and
 - contain the keywords, for the benefit of information retrieval systems.
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- c. the titles(s), academic position(s) of the author(s) referred to at the bottom of the page with the use of an asterisk;
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- e. full address of the author(s) (institutions of their affiliation, postal address, telephone, e-mail etc., for correspondence);
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It is the responsibility of the authors to list their names according to the degree of contribution made by each of them, in a decreasing order of contribution. Normally, the following rules wholly apply;

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- ☞ The degree of contribution shall be determined by the order in which the names appear, unless indications are given by the authors to the contrary.

1.3. All correspondences will be made with the author whose name appears first (unless indicated otherwise).

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The manuscript should have an abstract:

- not exceeding 200 words;
- that briefly introduces the problem, study gaps and the study area;
- that outlines the methodology, including the philosophical underpinnings, study design, approaches, sampling strategies, materials used and methods of data collection and analysis;
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- define the study area and objectives of the study;
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- present adequate review of the literature (both conceptual—including theoretical and conceptual frameworks—and empirical) related to the study;
- do all it should in no more than five pages.

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In here, authors are required to present clear account of:

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 - Standard methods need only be mentioned, or may be described by reference to the literature as long as it is readily available;
 - Modifications of standard techniques should be described; and
 - If the method is new, it should be described in detail.
- 4.2. If the article results from experimental or quasi-experimental research, the design of the experiment, including the number of replications;

4.3. materials used, including:

- chemicals, laboratory equipment with the necessary technical specifications; standard units of measurement;
- any plants or animals involved, with exact descriptions of genus, species, strain, cultivar, line, etc.);

4.4. justifications as to why the materials and methods used were chosen over others.

5. Results and Discussion

Depending on the craft and choice of authors, as well as on what the subject matter warrants, results and discussion can be either intertwined together or presented under separate sections. In any case, results should:

- 5.1. add new insights to the existing body of knowledge;
- 5.2. be based on data and information scientifically-drawn from sources, but free from authors' personal dispositions and biases.
- 5.3. be simply and clearly stated;
- 5.4. report representative data rather than endlessly repetitive data;
- 5.5. reduce large masses of data to means, along with the standard error or standard deviation;
- 5.6. repeat in the text only the most important findings shown in tables and graphs and instead report repetitive data in tables and graphs;
- 5.7. include negative data—what was not found— if (but only if) they affect the interpretation of results;
- 5.8. give only data that relate to the subject of the paper as defined in the introduction;
- 5.9. refer in the text to every table and figure by number;
- 5.10. include only tables, figures and graphs that are necessary, clear and worth reproducing;
- 5.11. provide adequate answers to all the research questions or pursue all the hypotheses/assumptions made at start of the study;
- 5.12. include concomitant findings only if they are important.

6. Interpretation of the results

This section, which should preferably be embedded with the ‘Discussion’ section, should:

- not repeat what has already been said in the review of literature;
- dealt with each of the originally stated objectives in the order they were originally;
- relate the results to the questions that were set out in the introduction;
- show how the results and their interpretations agree, or do not agree with previous findings and their interpretations;
- show implications/significance of the results for existing theoretical and conceptual constellations, policy, practice, and/or further research to follow up the results.

7. Conclusion and implications/or recommendation

This is the section where,

- based on the findings and discussions of their implications, the authors draw logical conclusions about each research question or hypothesis;
- nothing (methods, observations or results) should come as a surprise (should not be mentioned for the first time);
- authors should avoid unnecessary detail or repetition from preceding sections;
- you indicate future courses of action.

8. Citation and Referencing

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* Brown (1975: 63) has argued that the ...

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The letters a, b, c, and so on should be used to distinguish citations of different works by the same author in the same year. Example: Brown (1985a, 1985c) insist that...

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Numbered notes should be used to make clarifications about the references used, to include points left out in the text, to add some items which readers may want to know. If the citations or

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Alemayegu Lirenso. 1988. Food Aid and Agricultural Production in Ethiopia. *Ethiopian Journal of Development Research*, 10 (1): 59–90. (The last parts of the Journal can also be given as *Ethiopian Journal of Development Research*, Vol. 10, No 1, pp. 59–90.)

Cowley, R. 1967. The Standardization of Amharic Spelling. *Journal of Ethiopian Studies*, V. 2: 1–8.

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Bahru Zewude. 1991. *A History of Modern Ethiopia, 1955–1974*. London: James Curry.

- Clapham, C. 1988. *Transformation and Continuity in Revolutionary Ethiopia*. Cambridge: Cambridge University Press.
- Donham, D. and Wendy James (Eds.). 1996. *The Southern Marches of Imperial Ethiopia*. Cambridge: Cambridge University Press.

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- Levine, Donald. 1965. *Wax and Gold: Tradition and Innovation in Ethiopian Culture*. Chicago: University of Chicago Press.
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- Wood, Adrian P. 1982, Spontaneous Agricultural Resettlement in Ethiopia, 1950–1974. **In:** J. Clarks and L. Konsinski (Eds.), *Redistribution of Population in Africa*, pp. 1150–82. London: Heinemann.

☞ ***Contributions in proceedings***

- Tadesse Tamirat. 1984. Feudalism in Heaven and on Earth: Ideology and Political Structure in Mediaeval Ethiopia. **In:** *Proceedings of the Seventh International Conference of Ethiopian Studies, University of Lund 26-29 April 1982*, pp. 195–200, Edited by S. Rubenson. Addis Ababa: Institute of Ethiopian Studies.

☞ ***Conference papers***

- Hyden, H. 1990. ‘Ideology and the Social Sciences: The African Experience’. Paper presented at the OSSREA Social Science Conference, 8–10 May, Kampala, Uganda.

☞ ***Unpublished works***

- Messing, S. 1957. ‘The Highland-Plateau Amhara of Ethiopia’. Ph.D. dissertation, University of Pennsylvania.
- Alula Abate, *et al.* [these should be listed]. 1986. Evaluation of the Impact of UNICEF-Assisted Water Supply Projects in Bale, Harerge, Shewa and Wello - Ethiopia. Programme Cycle 1980–1983. *Research Report No. 30*, Institute of Development Research, Addis Ababa University, Addis Ababa.

☞ **Official publications**

- Central Statistical Office. 1975. *Results of the National Sample Survey Second Round, Vol. V. Land Area and Utilization*. Addis Ababa: CSA.
- World Bank. 1973. 'Agricultural Sector Survey, Vol. I, The General Report. Report no. PA-143a.' Washington: World Bank [Note: this is a report, not a book, so the title is not underlined].
- _____. 1989. *Sub-Saharan Africa: From Crisis to Sustainable Growth*. Washington: World Bank.

☞ **On-line sources**

Further to the details in the above categories, include the date of access and the URL of the site whereat the material was accessed.

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1.	2.	3.
1.1	2.1	3.1
1.2	2.2	3.2

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- Should have short titles;
- Each column and row of a table should bear proper titles;
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Avoid use of dots in all familiar abbreviations, such as CSA, EEC, FAO, UNESCO, USA. However, dots should be placed at the end of the followings: e.g., etc., *et al.* and other similar entries.

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**ETHIOPIAN JOURNAL OF DEVELOPMENT
RESEARCH (EJDR)**

Volume 39 Number 2 October 2017 ISSN 0378-0813

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Ethiopia-China Relationships

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Actors Interactions and Local People's Resistances in
Participatory Forest Management in Chilimo-Gaji
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Developmental Milestones of Children and Learning
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