Assessing the Practice and challenges of Early Childhood Care and Education in Government Pre-schools of North Shawa Zone

***Tarekegn Desalegn Fenta*[1]*, *Anteneh Negusie*[2]**

[1]Department of Psychology, Institute of Education and Behavioural Sciences, Debre Markos University, Ethiopia
[2]Department of Psychology, College of Social Science and Humanities, Debre Berhan University, Ethiopia
***Corresponding author:** tarekegndesalegn68@gmail.com, tarekegn_desalegn@dmu.edu.et

Abstract

The aim of this study was to investigate the practice and challenges of early childhood care and education in the government pre-schools of North Shawa Zone. Sixty pre-school teachers selected via lottery method and eight pre-school teachers selected through purposive sampling technique for the questionnaire and the interview respectively were involved in the study. Questionnaire, interview and observation were employed for data collection. Percentage, mean and Pearson correlation were used to analyse data collected through questionnaire whereas data procured through interview and observation were analysed qualitatively using themes. Findings depicted that 71.7%, 68.3%, 71.7% and 53.3% of the participants respectively revealed that Early Childhood, Care and Education settings [hereafter, ECCE] were not safe for children, no safe fence, no comfortable space for the children to play, and unavailability of a safe and clean latrine. The correlation result revealed that there was a significant weak positive relationship between structural and process quality indicators $r(60) = .36$, $P < .05$. Results from the qualitative part using structural and process quality indicators revealed inadequacies related to the practice and status of ECCE settings such as lack of enough materials and spaces, inadequate resources, insufficient play materials, lack of safety, protection, fence, and latrine. In addition, challenges identified in the ECCE settings were lack of standard curriculum, low family and community engagement, large teacher-child ratio, resource constraints, and lack of trained manpower, among others. Thus**,** it can conclude that the practice and functioning of ECCE is inadequate in terms of both process and structural quality measurements, implies that there is a direct relationship between the structural and process quality parameters of the ECCE that plea the government and stakeholders to invest a lot on the fulfilment of human and material resources to capitalize the processes involving care and education, which in turn, serve as a base in boosting education quality in the zone.

Keywords: *Care, Challenge, Education, Practice*

Introduction

In essence, care and education are inseparable during early childhood period because good quality provision for young children necessarily addresses both dimensions (United Nations Educational, Scientific and Cultural Organizations [hereafter, UNESCO, 2014]. As the Dakar Framework (UNESCO, 2000) states, care and education are aspects of a whole: both are needed to foster holistic growth, development and learning. Early childhood represents a window of opportunity for a lifetime development of a person, for example, cognitive development in children begins very early and that early childhood care and education intervention programmes provide children with a good foundation for life (UNESCO, 2010). Thus, early childhood experiences are critical for rapid brain (Tierney & Nelson, 2009), cognitive and language development (Korjenevitch & Dunifon, 2010).

Strong early childhood foundations-including good health, nutrition and nurturing environment-can help ensure a smooth transition to primary school, a better chance of completing basic education, and a route out of poverty and disadvantages (Mulugeta, 2015). Thus, one of the aspects that matters most for the level of quality of ECCE provision is the workforce who work with young children in pre-school education as well i.e., trained staff is better able to create more effective work environments and increase the efficiency (Taguma et al., 2012).

Similarly, Slot et al. (2015) stipulated that higher teacher qualifications and more work experiences were associated with better classroom organization and larger group size was related to lower emotional support and poorer classroom organization. Moreover, teacher quality, staff-child ratios, teacher turnover rates, parent-teacher communication, teaching and caring, government policy principals' leadership, pay and working environment and physical environments were found to be major challenges for childcare quality (Chiu & Owens, 2012).

In addition, Akinrotimi (2016) figure out other challenges of the ECCE settings such as lack of qualified professionals, lack of funding, ineffective supervision, lack of relevant resources, no uniform curriculum, and poor staff-child ratio. Inappropriate curriculum, teacher guide and student text books (Yigzaw & Abdirahman, 2017); lack of appropriate curricula and pedagogy

(Woodhead et al., 2009), and problem of adopting a compulsory pre-primary education policy (UNESCO, 2010) were the other challenges in ECCE settings. Further, Woodhead et al. (2009) indicated that current arrangements for ECCE in countries of Ethiopia, India and Peru appear to fall short of the requirements for implementing the rights of every child, and are equally incompatible with achieving social equity. Thus, ensuring the quality of ECCE is demanding as it needs basic requisites for organizing the program and activities like infrastructure, physical facility, health facility, competent teachers, training and orientation of teacher, developmentally appropriate curriculum framework, child friendly teaching learning process, common assessment procedure and monitoring and supervision of ECCE activities (Reetu et al., 2017).

In order to check the quality of ECCE program, the researchers use two distinct quality indicators: structural quality and process quality indicators (Sylva, 2010). The structural quality indicators- encompasses child-to-staff ratio (the international standard is 1:14) UNESCO, 2010), group size, staff qualifications, training, material and space etc. (Clifford et al., 2010). It also covers stable characteristics of the childcare environment and the resources available in a setting like teaching and learning materials, curricula, pedagogies, ways of learning, and the social, language and cultural contexts within which children live (UNESCO, 2007; Woodhead, 2006). School infrastructure like play materials (Hussain & Juma, 2006) and securing safety, good hygiene, good nutrition and opportunities for play are the other structural indicators (Myers, 2004), thus, satisfying materials, equipment, schedules, procedures, rules, and guidelines are constituents of structural quality of ECCE centers (Cassidy et al., 2005); available space for the children and the safety precautions are the other quality indicators (Myers, 2001 cited in Hussain & Juma, 2006); caregiver formal education and specialized training related to children are basic features related to quality of ECCE centers (Vandell & Wolfe, 2000 as cited in Cassidy et.al., 2005).

The second one is the process quality- includes a caregiver being actively interacted with children (teacher-child interactions), for instance the type of interaction can be relational (e.g., holding a child, etc.) and/or teaching (e.g., talking to children about why they decided to group certain objects together), and/or meeting an individual child's needs-requires an adult

being actively involved with the children using various materials, participating in different activities, or instructing and supervising children to do so (Cassidy et al., 2005). It also includes learning opportunities available to the children, peer-to-peer interaction, parental and community support and engagement within the child care environment (Clifford et al., 2010). It was also specified the inclusion of children in play and learning activities, age-appropriate activities and routine activities are characterizing features of process quality (Helburn & Howes; Howes & Smith; Marjanovič Umek et al. as cited in Umek, 2014).

In order to see the relationship between structural and process quality indicators of ECCE Slot et al. (2015) indicated that where better classroom organization (related to process) was associated with higher teacher qualifications and more work experience (related to structural aspect); larger group size (structural element) was positively related with lower emotional support and poorer classroom organization (process element). Additionally, Arnett (1989) stated that process quality is most proximally influenced by the structural variables that actually exist within the classroom, such as teacher characteristics or staff: child ratio. Teachers organize the classroom, provide activities for children, manage personal care routines, and interact with children; thus the characteristics of teachers should be directly and strongly related to the process quality that children experiences.

Despite coverage rates are increasing worldwide, at the Ethiopian levels both good quality early childhood services and enrolment coverage remain inaccessible to the majority of children (UNESCO, 2010). In Ethiopia, as to the Annual Educational Statistical Abstract of Ministry of Education (MoE, 2013), the gross enrolment rate of kindergarten (ages 4 to 6) was only 6.2% and mainly practiced in urban areas, i.e. out of the estimated 7.71 million children of the appropriate age group (age 4 to 6) about 2.01 million children have been reported to have access to pre-primary education all over the country. Thus, the enrolment is small when compared to the appropriate age group.

About 90% of the Kindergarten enrolment in 2012/13 G.C. is covered by non-government organizations (Mulugeta, 2015), i.e. the government has very limited intervention on this regard. For instance, MOE (2007), in its report states that the government does not run preschool education program for two main reasons such as to bolster the

involvement of the private sector and to maximize the government's effort in the other levels of the sector. As a result of this government's limited intervention, enrolment rate for pre-school education has remained very low, especially in rural areas of the country.

Therefore, it obvious that the pre-school sector is dominated by fee charging kindergartens in which children from low socioeconomic background do have very little opportunity to attend this critical stage of education i.e., there is lack of equal access to all children, since ECCE is mainly an urban issue, paradox is, majority of Ethiopian children live-in the rural areas where they cannot access ECCE programmes, this is still a challenge. As a result the bulk of the overwhelming children population had virtually no access to kindergarten education. Contrarily, the chief goal of the education and training policy is the cultivation of citizens with an all-round education capable of playing conscious and active role in the economic, social, and political life of the country at various levels yet less attention and investment has been given to it in Ethiopia.

Thus, it is imperative that the fundamental problem of the educational system is stage by stage corrected by starting strong in undertaking the research on the area under consideration; the study is believed to contribute suggesting possible remedial strategies and implications to further understand the problem and provide new knowledge regarding the practice and challenges of ECCE learning settings in North Shawa Zone.

In all aspects there are several gaps continue to exist in research on ECCE let alone in North Shawa Zone it is understudied at national level as well. To be precise, a study entitled "Early Childhood Care and Education in Ethiopia" (UNESCO, 2006) has identified the lack of a responsible body, a distinctive curriculum, guidelines, or quality assurance systems as major problems in preschool training scheme. Thus, it is to say with caution that, the ECCE is one of the neglected areas in the Ethiopian Education system. Deduced from those facts and the paucity of empirical studies of this kind locally, it is believed that the findings and implications of this study would be of great importance for ECCE learning settings, children, NGOs, supervisors, teachers, parents, Education Beraues, and the Ministry of Education. Accordingly, the following research questions are formulated:

- What material and human resources available in the ECCE settings in North Shawa Zone?
- Are there significant relationships between structural and process quality indicators of the ECCE in North Shawa Zone?
- What are the very challenges existing in the ECCE settings in North Shawa Zone?

Method

Research Design

This study employed descriptive survey that describes the practice and challenges of ECCE settings found in North Shawa Zone. In view of this, the survey method was employed to collect quantitative and qualitative data, using questionnaire, interview and observation. Both qualitative and quantitative approaches, the embedded design was used in this study i.e., both types of data were collected and analysed at the same time, but a quantitative part in this study is larger than the qualitative part.

Population, Sample and Sampling Methods

The population for this study was teachers working in the ECCE settings found in North Shawa Zone. In this study, the sample selection was undertaken in the following manner. First, Weredas where the ECCE settings are located were determined using simple random sampling technique (lottery method). In this case, from the 27 Weredas available in the North Shawa Zone during the data collection stage, four Woredas namely Siyadebrna Wayu, Hagere Mariam, Tarma Ber and Bassona Worana were selected randomly using a lottery method. Again, among the four Woredas, three ECCE settings from each were selected randomly using a lottery method after lists of the ECCE settings were identified. Then after, pre-school teachers participated to fill-in the questionnaire was selected from the randomly selected ECCE settings using a lottery method. On the other hand, 8 pre-school teachers involved for the qualitative part were selected using purposive sampling technique. In this respect, pre-school teachers who were thought to be informative were included purposively to take part for the interview. For the questionnaire, a total of 64 pre-school teachers participated (61 females & 3 males) of them only 60 pre-school teachers' questionnaire as properly filled-in were considered for the analysis.

Measures

The Questionnaire- the questionnaire containing the restricted and non-restricted items form, developed by the researchers was used to collect the data. Before the

questionnaire in use, detail evaluations were undertaken on the items relevant to the research questions. The questionnaire asked for specific information concerning on education and care aspects of the ECCE settings, their structure, operations, practices, the resources (material, human), pre-schools' level of entertaining the developmental needs of children, and the challenges that exist in the ECCE settings found in North Shawa Zone.

The interview-semi structured items pertaining aspects like education and care aspects of the ECCE settings, their structure, operation, practices, services, the resources (material, human), pre-schools' level of entertaining the overall developmental needs of children, and the challenges that exist in the ECCE settings found in North Shawa Zone.

Observation-a check-list was prepared and used to collect data from the sample ECCE settings to note the physical conditions, materials availability, and practices exercised in the pre-schools. The observations were carried out during the working hours from 8:00 to 12:00 AM.

Data Collection Procedures

Before instruments were used for data collection, they were passed through stages of revision. Regarding administration, the questionnaire was administered with the help of data collectors. But, before the data collectors carried out data collection, they were trained especially, to take caution on such issues like anonymity (confidentiality) and willingness of the participants. Besides, data collectors were informed that they should administer the questionnaire after they got participant's willingness to participate in the study. In addition, data collected through interview from pre-school teachers were undertaken by the researchers after convenient time was arranged with them. Furthermore, observation was undertaken by the researchers on the selected pre-schools.

Methods of Data Analysis

Data collected through questionnaire were analysed using percentage, mean and Pearson correlation while data gathered through interview and observation were analysed using thematic method by means of grouping similar responses using narration and summarization.

Results and Interpretations

Table-1: Frequency Showing Fulfilment of Resources in the ECCE Settings

Questions	Responses	respondents	(%)
Having certificate on early child hood education	Yes	14	23.33
	No	46	76.67
Presence of training on early childhood education	Yes	45	75
	No	15	25
Presence of continuous professional development program for the staff	Yes	42	70
	No	18	30
Availability of early childhood care and education curriculum/guideline in the pre-school s	Yes	4	6.67
	No	56	93.33

In an attempt to investigate the possession of certificate of the pre-school teachers on ECCE, 23.33% of them answered that they have the certificate whereas the remaining 76.67% of them responded they haven't had the certificate on early childhood education. Along with this, 75% of the participants have been engaged in training so far on early childhood education whereas 25% of them had no exposure to these opportunities. Concerning whether there is a continuous professional development program or not to the staff, those who said yes outnumbered those who responded no constituting 70% and 30% respectively. The last concern is about the availability of a standard curriculum that can serve as a guide for the implementation of care and education across all ECCE settings. The majority of study participants 93.33% of them showed that there is no ECCE curriculum/guideline while 6.67% of them answered that it existed, probably these less number of respondents may be confused about the true nature of a curriculum.

Table-2: Safety of the ECCE Education Settings

To what extent the ECCE setting you work-in is safe enough for the child regarding:	**Responses**	**Respondents**	**Percent (%)**
Over all surrounding's hygiene	Yes	17	28.3
	No	43	71.7
Availability of a fence	Yes	19	31.7
	No	41	68.3
Availability of a clean latrine	Yes	28	46.7
	No	32	53.3
Comfortable ground for the child to play	Yes	17	28.3
	No	43	71.7

As Table-2 above revealed, more number of participants 71.7% indicated that the pre-schools are not safe enough whereas 28.3% of them agreed that the pre-schools are safe regarding over all surrounding's hygiene. Related to the availability of a safe fence, 68.3% of the participants indicated that there is no safe fence available to the pre-schools whereas 31.7% of them reported about the presence of safe fence for the pre-schools. Also 53.3% and 46.7% of the respondents answered no and yes respectively regarding the availability of safe and clean latrine. Finally, the majority of them 71.7% of them reported that there was no comfortable ground for the children to enjoy playing while 28.3% of the pre-school teachers agreed about the availability of the facility under consideration.

Table-3: The overall descriptive statistics of selected variables

Variables	N	Range		Mean	Standard deviation
		Minimum	Maximum		
Age	60	20	45	28.73	5.81
Student number per class	60	13	61	43.96	10.77
Teacher-student ratio	60	1:13	1:60	1:43.88	1:10.98
Structural quality indicators	60	12	40	26.08	7.05
Process quality indicators	60	43	70	57.05	5.93

As Table-3 disclosed, the age of participants ranges from 20 to 45 with (M = 28.73 and SD = 5.81). The class size (number of students in a class) is ranging from 13 to 61 with a mean of 43.96 and SD of 10.77. The average teacher-student ratio is obtained to be 1:43.88 with a standard deviation of 1:10.98 where the minimum and maximum ratios are 1:13 and 1:60 respectively. All these teacher-student ratios are far below the international standard (1:14). As displayed in Table-3 above, the total sum of structural quality indicators were computed to show values which ranged from 12 to 40 with a mean of 26.08 and a SD of 7.05. Concerning the total sum of process quality indicators, it has been indicated that the minimum value is 43 and the maximum is obtained to be 70 with a mean and standard deviation of 57.05 and 5.93 respectively. When we look at the frequencies of responses on each item of the process and

structural aspects, participants gave answers informing relatively better practices in the process than structural characteristics.

Table-4: Inter-correlations between Structural and Process Quality Indicators

Variables	Structural indicators	Process indicators
Structural indicators	1	.36**
Process indicators	.36**	1

** Correlation is significant at the .01 level (P = .005)

As shown in the Table-4 above, the inter-correlation analysis between the variables examined revealed a significant positive relationship has been observed between structural and process quality parameters (r =.36, p<.01). The implication here is when the structural aspect of ECCE settings (like adequate materials, skilled manpower, manageable class size, enough teaching learning materials etc.) are satisfied to the level expected, the process aspect of quality (such as teacher-child interaction) is to be improved.

Analysis of Qualitative Data Collected through Interview and Observation

What resources (material, human) and the services available in the ECCE settings in North Shawa Zone?

Having human and material resources in ECCE settings in abundance is critical as they can help the children to have more developmental experiences. Hence, data were secured on this issue using interview from kindergarten teachers and observations by the researchers. The pre-school teachers were asked about the extent of provision of materials in the pre-schools and their responses were summarized accordingly, here below.

The level of provisions of the materials was found to vary among the pre-schools, particularly, play materials and teaching and learning materials. In this regard, materials serving for play were disproportional to the children number while some teaching and learning materials was fairly partially proportional with the number of children. Play and other materials, provisions were in fact encouraging but poor selection of play materials for which the materials are sought. Putting all sorts of materials in the playground and make them accessible to children can only make children busy but without a learning purpose.

The other issue raised was the availability of out-doors instilling materials like (ball,

equilibrium, gymnastics, trampoline, etc.) as well as the availability of fair space in the pre-schools for boosting children's gross motor development. Children at the kindergarten level must develop both gross motor and fairly fine motor skills yet there are no adequate outdoor playing materials, disproportional playing spaces for the children to enjoy, no gymnastic utensils, trampoline, balancing materials, equilibrium, and few balls (1 ball to 30 students) in the government pre-schools. In other words, the balls, equilibrium, trampoline, and balancing materials are not adequate enough relative to the children's number.

The minimum standard for every pre-school is to meet a safety issue that children should be protected; the pre-schools should be free from dangerous objects such as poisons, sharp scissors, cleaners etc., however, the latrine house is neither clean nor sufficient, the compound is less attractive, the topography is uneasy to enjoy. From the interview it was figure out that there were no sharp materials, no poisoning and toxic substances were present in the pre-schools considered yet there were materials like rusted nails and old woods present in the pre-school compounds. Most important is, the most pre-schools lack proper fences as a result it is pretty normal to see dogs and other animals entering into the school compound, in turn, threatening the children's safety. In this regard:

> *As a participant disclosed 'she used to spot that dogs wandering in the pre-school where she has been served, even the dogs appearing closer to classes several times.'*

We also rose to the pre-school teachers about issues of assessment of children's progress as a last remark. As development in the early years is rapid and it has to be assessed at regular intervals, assessment outcomes have to be well recorded, regularly consulted, and willingly shared with parents and other support providers, if any. However, there was no assessment of and record keeping about the developmental progression of the children done in a planned and careful way in the pre-schools. With regard to human resources, both the teacher-child-ratio and caregiver-children ratio in the pre-schools is low on average, is 1 to 30, no parental involvement in the pre-school affairs as well.

Moreover, observation was conducted on randomly selected pre-schools and the purpose of observation was to identify and record physical conditions, materials availability, and ECCE practices in the pre-

schools. The observations were carried out during the working hours, from 8:00 to 12:00 AM. In our observation, we went to some sample satellite rural pre-schools, which have no classes rather children attended their class under the tree. There was only a teacher running the class in most of satellite rural pre-schools. Children from KG1-KG3 attended their education at a class altogether. There were no fence, no latrine, no community involvement, chairs & tables were long enough, for the children to reach them. Moreover, the blackboards available were hard to write on them. In addition, children seemed less hygienic perhaps rural and poor parents did not care for their children to keep their children hygienic. But interesting is, pre-school teachers were encouraging them to play, taking care of children's personal hygiene, protecting them from accidents etc. The other point that the researchers' noted in their observation were lack of experience and expertise on the teachers' side as teachers were not familiar with how to teach as they are not trained for this purpose.

In general, we understood that despite there is an enabling policy framework, pre-schools are without standards, guidelines and manuals/curriculum that uniformly applied even at all government pre-schools; most of them were not safe, secured and protected as many did not have fence, the latrines not cleaned yet most pre-schools were free from dangerous objects such as poisons, sharp materials etc. as a result there are obstacles that need to be tackled for kindergarten education operating effectively in North Shawa Zone.

What are the very challenges existed in the ECCE settings in North Shawa Zone? Based on the researchers' observation and interview from the pre-schools, the following were noted:

- Absence of standard curriculum uniformly applied at all pre-schools.
- Insufficiency manpower-number of teachers hired in teaching at the pre-school is very limited, in most pre-schools only a teacher shouldering at all the burdens.
- Poor wage-the salary paid for pre-school teachers is very undersized and less supportive.
- Low stakeholders involvement-parental and community involvement in almost all governmental pre-schools is very limited and unmentionable.
- Resource insufficiency- resources supporting kindergarten program are very limited.

- High children drop outs as parents committing divorce, being poor, and uneducated.
- Difficulty in ensuring pre-school children's basic needs- most children in the pre-schools came from poor and uneducated families, they came to school without having food.
- Inadequate in-door and out-door materials, some play materials were not in reasonable proportion to the number of children.
- No designed short-term and long-term trainings opportunities available for pre-school teachers.
- Most pre-schools' space is shallow and not comfortable to support children's mobility.
- Lack of professional thoroughness, noted in many ways; this lack of professionalism had affected the quality of early childhood education rendered in the ECCE settings.
- Administrative, coordinating, and supervisory offices are missing; hence, many of the pre-schools were not guided, supported, monitored, and supervised.

Discussion

In this part an attempt was made to discuss the findings of the study in relation to previous findings and/or theoretical concepts of the constructs under investigation. The discussion will focus on different related topics with the study as presented below.

Practice and Status of ECCE as Measured by Process Aspects

Concerning whether the classroom environment is encouraging and stimulating, this study revealed tasks like children to listen to and read stories, be engaged in oral education such as songs, engage in dramatic play, experiment with writing by drawing, inventing their own spelling, storytelling, teaching alphabets/ literacy & numeracy, encouraging children practice language, encouraging children to develop social skills were highly practiced in many of the schools. These practices can be marked as good since they are indicative of the status of centers in terms of the process quality parameter. This is in agreement with the finding of Cassidy et al. (2005) which indicated that the process quality requires an adult being actively involved with the children using various materials, participating in different activities, or instructing and supervising children to do so. Similarly, the inclusion of children in play and learning activities, age-appropriate activities and routine activities are characterizing features of process quality

(Helburn & Howes; Howes & Smith; Marjanovič Umek et al. as cited in Umek, 2014).

As revealed in the quantitative analysis, a good performance was reported among pre-school teachers in interactional issues like speaking warmly to the children, responding to children's talk, provoking curiosity and interest, listening when children are talking, encouraging them to try new experiences, talking to them on a level they can understand, using activities such as block building, measuring ingredients for cooking, woodworking, and drawing to help children learn concepts in math, science, and social studies etc. Moreover, it was found out that pre-school teachers kneeling, bending, or sitting at children's level to establish better eye contact when talking to children, teachers being enthusiastic about the children's activities and efforts, encouraging children to give more than one right answer, using positive reinforcement and encouragement as discipline techniques and encouraging children to exhibit pro-social behaviour such as sharing and helping. In line with these results, previous findings have shown to be supportive like teachers' sensitivity, experiences children gain, teachers' interest to maximize the curiosity of children were showed to be relevant features of process quality characterizing good early childhood care and education (Helburn & Howes; Howes & Smith; Marjanovič Umek et al. as cited in Umek, 2014). In a similar vein, process quality includes a caregiver being actively interacted with children (teacher-child interactions), for instance the type of interaction can be relational (e.g., holding a child, etc.) and/or teaching (e.g., talking to children about why they decided to group certain objects together), and/or meeting an individual child's needs (Cassidy et al., 2005).

When we consider the interaction between parents and pre-schools and also community engagements in general, the study pointed out that the interaction of families with teachers or with schools and engagement of the community were obtained to be poor which could be labelled as a total ignorance. There is no parent committee framed in most schools to facilitate the teaching-learning process and also the community involvement in almost all governmental kindergarten schools is very limited and unmentionable. In terms of practice, this finding contradicts to the study of Taguma et al. (2012) wherein cooperation between the ECCE setting, parents and the community can contribute to providing a

more continuous child development process. To these researchers, engagement of parents in tasks such as the right to be informed, comment on and participate in key decisions concerning their child and community engagement like health or social services and sport organizations can also strengthen the quality of parenting and the home-learning environment.

Practice and Status of ECCE as Measured by Structural Aspects

Though there are variations among pre-school centers in the provision of appropriate materials, this study revealed that materials serving for play were not proportional to the number of children. In this respect, most pre-school centers were not arranged in a sufficient manner in outdoor playing materials, like no gymnastic utensils, trampoline, even balls and balancing materials. This suggests that the schools under investigation are lagging behind the recommended fulfilment of relevant and appropriate materials. Unlike these results, some of the major factors that positively affect the quality of teaching and learning in early childhood settings are the school infrastructure like play materials (Hussain & Juma, 2006), and opportunities for play (Myers, 2004).

From the analysis of the questionnaire part, a number of drawbacks related to the structural elements of ECCE were identified which are setting back the practice and status of these settings. Among the shortcomings identified, ECCE centers are not entertaining the overall development of children, are not providing proper services in line with children's needs, they lack to provide adequate resources of whatever necessary, lacking enough material and spaces for the children, , they are not containing enough teaching and learning materials, are not as such encouraging for student-centered ways of learning, they are not well organized in many aspects and in general the statuses of ECCE settings can be labelled as inadequate. In terms of practice and status, all these results contradict the findings of Cassidy et al. (2005) and Myers (2001) as cited in Hussain and Juma, (2006). For example, according to Cassidy et al. (2005), satisfying materials, equipment, schedules, procedures, rules, and guidelines are constituents of structural quality of ECCE centers. In a similar vein, Woodhead et al. (2009) indicated that current arrangements for early childhood care and education in countries of Ethiopia, India and Peru appear to fall short of the requirements for implementing the rights of every child,

and are equally incompatible with achieving social equity. Physical environment based on the amount of available space for the children and the safety precautions are quality indicators (Myers, 2001 cited in Hussain & Juma, 2006).

In relation to access to relevant certificate of ECCE, the study showed that majority of the study participants didn't have a certificate on early childhood education or child development. Even though there are some training opportunities in the means of short term, long term and further trainings for the staff, the number of teachers who are holding relevant educational qualifications like diploma, degree or any other relevant certificate on the issue underpinning the quality of early childhood care and education was shown to be poor i.e., it can be stated as ECCE centers are lacking qualified teachers. Relating this finding with the expected practices of fulfilling trained manpower, we found it to the contrary of other studies. For example, Taguma et al. (2012) stated that to create a more effective and stimulating ECCE work environments, it is a necessity for teachers/staff to be qualified/highly trained which contributes to an improved pedagogical and professional quality. Moreover, according to Vandell and Wolfe (2000) as cited in Cassidy et.al, (2005), caregiver formal education, and caregiver specialized training related to children are basic features related to quality of ECCE centers.

Another finding of this study on the structural indicators of quality ECCE centers is about the teacher-child ratio and the class size in general. The average teacher-student ratio was obtained to be 1 to 44 in the schools we examined and the average class size was 43.96 students. When we are discussing this finding in an association with the standard teacher-student ratio, it is far below the standard of 1 teacher to 14 students (UNESCO, 2010). According to UNESCO (2010), for a better practice of ECCE centers in a way stimulating and entertaining the overall development of children, the international standard of teacher-child ratio is recommended to be 1 to 14.

Additionally, the study showed that more number of participants answered on the questionnaire that the ECCE centers are not safe regarding over all surrounding's hygiene, there is no safe fence available to the centers and also there is no safe and clean latrine. Still these findings are obtained to be in contrary to previous research findings when dealing with the practices and operations of appropriate

ECCE settings. For instance, Myers (2004) suggested components of early childhood care and education should be designed and function in a way they secure safety, good hygiene, good nutrition and appropriate opportunities for rest. Sanitary conditions or health procedures are considered structural quality if they are either present or not and do not require on-going and active participation from the teacher (Cassidy et al., 2005). Contrarily, the findings revealed that , most pre-school centers were not safe, secured and protected as many did not have fence, the latrines not cleaned but, most school were free from dangerous objects such as poisons, sharp materials etc. this finding is inconsistent with

Furthermore, a great majority of the centers in the zone have been shown to be a center-based care consolidated under the primary school and there are no child care centers which are established independently for this purpose except only some satellite pre-schools which are poor enough in a number of dimensions and cannot be categorized under the true nature of independent child care centers. Being incorporated under the primary schools, it may be highly difficult for the ECCE settings to operate effectively and to get the necessary attention and all the expected support which have contributions for quality child care and education.

Relationships between Structural and Process Indicators

In an intention of examining how much structural and process quality parameters of ECCE are interwoven each other, this study pursued a relationship between these variables. And it showed a direct significant relationship between structural and process quality parameters which implies that as the structural aspect of ECCE centers (like adequate materials, skilled manpower, manageable class size, enough teaching learning materials etc.) are satisfied to the level expected, the process aspect of quality (such as teacher-child interaction) is to be improved. This finding corresponds with the finding of Slot et al. (2015) where better classroom organization (related to process) was associated with higher teacher qualifications and more work experience (related to structural aspect); larger group size (structural element) was positively related with lower emotional support and poorer classroom organization (process element). Additionally, Arnett (1989) stated that process quality is most proximally influenced by the structural variables that actually exist within the classroom, such as teacher characteristics or staff: child ratio.

Teachers organize the classroom, provide activities for children, manage personal care routines, and interact with children; thus the characteristics of teachers should be directly and strongly related to the process quality that children experiences.

Challenges Associated to the ECCE Centers

In the quantitative and qualitative analyses of this study, the absence of standard curriculum that can serve as a guide for the implementation of care and education across all centers uniformly was a major challenge identified. In line with this finding, other studies revealed that not having a curriculum in pre-primary schools (Akinrotimi, 2016), lack of appropriate syllabi (Yigzaw & Abdirahman, 2017), lack of appropriate curricula and pedagogy (Woodhead et al., 2009) and problem of adopting a compulsory pre-primary education policy (UNESCO, 2010) were identified as major challenges.

A second challenge of ECCE centers is insufficient manpower i.e., the number of teachers hired for teaching at kindergarten is very limited and also more number of students per class (staff-child ratio) are real challenges experienced by the centers. This is consistent with other studies; less number of competent teachers (Reetu et al., 2017) and lack of qualified professionals (Akinrotimi, 2016). Additionally, according to Chiu and Owens (2012), teacher quality, staff-child ratios and teacher turnover rates were found to be major challenges for childcare quality.

Other challenges related to the issue undergoing are budget constraints for running the kindergarten program as needed. The issue of inadequate finance was also related with poor wage-the payment of kindergarten teachers is dissatisfying, less supportive and discouraging. These are confirming to other findings, for instance, payment and working environment challenges (Chiu & Owens, 2012) and lack of funding as well as relevant resources for the program (Akinrotimi, 2016) are major obstacles for running pre-school centers effectively.

Moreover, administrative, coordinating, and supervisory offices were missed; hence, many of the Kindergarten schools were not guided, supported, monitored, and supervised. And the parents' communication with the schools and communities' participation and support were not significant. Leave alone active participations and encouragements, the society consider and viewed Pre-school teachers as inefficient, less knowledgeable, thus causing

for some leaving their jobs. In line with this, it was found out that transition experiences into first grade are frequently stressful for children and parents because of a lack of communication and coordination between two sectors that are governed by different management structures (Woodhead et al., 2009). Moreover, Akinrotimi (2016) pinpointed that insufficient supervision by different stakeholders was a big challenge in the practice of early childhood care and education.

Conclusions

Based on the findings, it can be concluded that the practice of early childhood care and education is inadequate in terms of process and structural quality indicators across the various pre-schools. Concerning the process aspects of pre-schools, there are disparities in the implementation of expected tasks and fulfilment of appropriate resources. In addition, parental interaction and involvement at the pre-schools is poor i.e., the ECCE settings are not working closely with families, the community and stakeholders. In terms of structural quality indicators of the ECCE settings, a number of inadequacies/shortcomings were identified namely lack of enough material and spaces, unable to provide proper services in line with children's needs, inadequate resources, insufficient teaching and learning materials, if any, not arranged in a manner addressing the overall development of children, disproportionality of play materials to the number of children, no trampoline, gymnastic utensils, even balls and balancing materials which shows the pre-schools under consideration are behind the standard. Furthermore, there is a direct relationship between the structural and process quality measures of ECCE settings, which calls for educational institutions to invest a lot on the fulfilment of basic and relevant materials and human resources so as to improve the processes involving care and education. The challenges that are experienced by the pre-schools, among others are: absence of standard and uniformly guiding curriculum, large class sizes (high teacher–child-ratio), insufficient budget, insufficient qualified/trained manpower, absence of incentives for teachers achieving their best, lack of professional thoroughness, uncomfortable school compound and inadequate in-door and out-door play materials.

Recommendations

Based on the findings, the following recommendations are forwarded:

In order for ECCE centers operate effectively there is a need to implement the

same syllabus across the pre-schools, therefore, the Ministry of Education should develop a uniform curriculum which guides the practice of appropriate care and education and efforts should be made to reduce the teacher-child ratio to the standard recommended for maximizing a quality care and education. Moreover, the relevant education Bureaus in collaboration with other concerned bodies need to assign qualified and well-trained teachers to the ECCE centers and an extensive educational development opportunities should be arranged for those who are currently working either through a means of further education or short or/and long term trainings. Furthermore, North Shawa Zone education Bureau should give due emphasis to the ECCE centers and fulfil basic materials which are relevant to children (both indoor and outdoor services should be accessible to children), should strengthen the parent-school interactions and the community should be engaged to the extent it can support what is expected. In doing so, North Shawa Zone and Woreda education Bureaus should closely support, supervise, monitor and evaluate to examine how the respective pre-schools are operating and functioning effectively. Furthermore, it will be pivotal for other investigators to further research on the issue under consideration, particularly in a manner that will make comparisons between the government/public and private pre-schools which will serve to see the disparities of care and education in these two center types so that the one with quality and fit to standard practices will be benchmarked.

Acknowledgments

Researchers are thankful to Debre Berhan University Research Directorate Office and College of Social Science and Humanities College for the cooperative effort put in place in the funding as well as the leadership asserted, which made this research possible. Moreover, the researchers are thankful to pre-school teachers for their volunteerism in participating in this study. Moreover, authors extend their appreciation to data collectors who played vital role in making this research realistic.

References

Akinrotimi, A. A. (2016). Challenges in implementation of early childhood education in Nigeria: The Way Forward. *Journal of Education and Practice: 7(7).*

Arnett, J. (1989*).* Caregivers in day-care centers: Does training matter? *Journal of Applied Developmental Psychology, 10(4), 541-552.*

Cassidy, D.J., Hestenes, L.L., Hansen, J.K., Hegde, A., Shim, J., & Hestenes, S. (2005). Revisiting the two faces of child care quality: Structure and process. *Early Education and Development, 16(4), 504-520.*

Chiu, H. Y., & Owens, A. (2012). Study of factors influencing childcare quality in preschools. *Chia-nan Annual Bulletin, 38, 264 – 271.*

Clifford, R. M., Reszka, S. S., & Rossbach, H-G. (2010). *Reliability and validity of the Early Childhood Environment Rating Scale.* Chapel Hill: FPG Child Development Institute.

Hussain, A., & Juma, A. (2006). Defining quality in early childhood settings: Experiences from the field. Quality in education:Teaching and leadership in challenging times, 1, 156-175.

Korjenevitch, M., & Dunifon, R. (2010). *Child-care center quality and child development*. Cornell University.

MoE (2007). *Status of early childhood care and education in Ethiopia.* Ministry of Education. Addis Ababa.

MoE (2013). *Annual educational statistical abstract*. Addis Ababa, Ethiopia: EMIS, Planning and Resource Mobilization.

Mulugeta, T. (2015). Early child care and education attainment in Ethiopia: Current status and challenges. *African Educational Research Journal*, 3(2): 136-142.

Myers, R. (2004). *In search of quality in programmes of early childhood care and education (ECCE),* UNESCO, Geneva.

Reetu, C., Renu, G., & Adarsh, S. (2017). Quality early childhood care and education in India: Initiatives, Practice, Challenges and Enablers. *Asia-Pacific Journal of Research in Early Childhood Education, 11(1).*

Slot, P., Lerkkanen, M. K., & Leseman, P. (2015). *The relations between structural quality and process quality in European early childhood education and care provisions: Secondary analyses of large scale studies in five countries*. Curriculum and quality analysis and impact review of childhood education and care.

Sylva, K. (2010). *Quality in childhood settings*. In evidence from the effective preschool and primary project, edited by K. Sylva, E. Melhuish, I. Siraj- Blatchford and B. Taggart. London: Routledge.

Taguma, M., Litjens, I., & Makowiecki, K. (2012). *Quality matters in early childhood education and care*: Finland; Secretary-General of the OECD.

Tierney, A. L., & Nelson, C. A. (2009). Brain development and the role of experience in the early years. *Zero to Three*, 30(2), 9–13.

Umek, L. M. (2014). The structural quality of preschools: How it influences process quality and children's achievements. Journal of contemporary educational studies, 2, 10-23.

UNESCO (2000). *The Dakar Framework for Action. Education for All:* Meeting our Collective Commitments, adopted by the World Education Forum. Dakar, Senegal, 26–28 April 2000. Paris, France: UNESCO.

UNESCO (2006). "*EFA Global Monitoring Report 2007: Strong foundations– Early childhood Care and education*." Oxford and Paris, Oxford University Press and UNESCO.

UNESCO (2007). *Strong Foundations: Early Childhood Care and Education, Education for All Global Monitoring Report, Paris: UNESCO.*

UNESCO (2010). *The World Conference on Early Childhood Care and Education (ECCE): Building the Wealth of Nations*", 2010/ED/BAS/ECCE/ME/1 REV.2.

UNESCO (2014). *EFA Global Monitoring Report. Teaching and Learning: Achieving Education for All*. Paris: UNESCO.

Woodhead, M. (2006). *Changing perspectives on early childhood: theory, research and policy, UNESCO EFA Global Monitoring* Report 2007, UNESCO.

Woodhead, M., Ames, P., Vennam, U., Abebe, W., & Streuli, N. (2009). *Equity and quality? Challenges for early childhood and primary education in Ethiopia, India and Peru.* Bernard van Leer Foundation, The Hague, Netherlands.

Yigzaw, H., & Abdirahman, M. (2017). Practices and challenges of public and private preschools of jigjiga city administration. *International Journal of Research-Granthaalayah, 5 (12).*