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FACTORS INFLUENCING PARTICIPATION IN EARLY CHILDHOOD EDUCATION: ITS IMPLICATION TO QUALITY-EDUCATION

Research Article

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FACTORS INFLUENCING PARTICIPATION IN PRESCHOOL EDUCATION: ITS IMPLICATION TO QUALITY-EDUCATION

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Abstract

The study aimed to investigate factors influencing participation in pre-school education and its implications for quality-education. The descriptive survey research design was employed through stratified random sampling to collect pertinent information through questionnaires and observational checklists. The first finding was that 68.92% of the total variance of the factors contributed to quality pre-school education was the site of the pre-schools, lack of enough spaces for children practices, poor instructional materials in kind and amount, and poor availability of curriculum materials to each child in the classroom. The second finding was that most teaching materials and curriculum contents (83%) were not from indigenous sources. Finally, large class sizes, high teacher-child ratio, low staff salaries, lack of well-trained staff, poor relevance of curriculum, and lack of parental involvement were found to be the major influencing factors affecting preschools' quality-education. Therefore, policymakers should be clear with the aims of Pre-school Education.

Keywords: Preschool, Education, Haramaya University, Participation, Psychology

1. Introduction

Pre-school education (PSE) program has social benefits at individual, family, community and the societal level. It is the basis for shaping socially responsible citizens who are capable of building a stable and harmonious multicultural society. Indeed, it is the right program to foster an early appreciation of the desired social and ethical values of diversity, tolerance, respect, sharing, and cooperation in a plural society like Ethiopia. These values shall in the long run markedly reduce domestic and school violence, crime, different forms of discrimination, child abuse and neglect. To realize these objectives, however, the concerted actions of all the concerned bodies, most importantly the government, parents, teachers, the community, non-governmental organizations and the society at large, are very much desired (Tirussew, 2007).

To effectively run the preschool program planning appropriate curriculum, using the services of consultants in health, education, nutrition and other fields, and encouraging parents' interests and involvement in all aspects of the program should be given due attention. Preschool is the place where children gain maximum benefits other than their homes. So, its physical set up, site, surroundings, plan and programs are paramount importance in achieving the goal of pre-school education (Chaudhury, 2002).

Accordingly, the ministry of education of the country, Ethiopia, has set minimum standards in line with the strategic operational plan and national policy framework that preschool education program must meet in order to achieve the intended goals and profiles set in the policy. On top of this, children education its very essence necessitates the coming together of people, materials, appropriate strategies of instruction and program into a cohesive unit so as

to achieve its aim. Particularly, teachers, directors and preschool administrators, as well as nearby educational experts, should play a significant role in pre-school education (PSE) program implementation. Therefore, factors influencing participation in preschool education: its implication to quality-education at Harar, Chiro and Dire Dawa town was the main concern of this study.

1.1. Statement of the Problems

Pre-school education used to promote children to be active, interested and motivated learners who are searching forward to beginning schools and success in life (Fitzgerhad, 2004). It also closes the gap between formal schools and home environment into which children will enter later. Besides, it provides happy social, emotional, intellectual and physical environments where children benefit from a wealth of materials and social contacts usually not found at home (Kuppuswamy, 1980; Gray 1966).

In Ethiopia, especially the rural children are being starved of those enriching experiences of the kindergarten sets out to offer. It is possible to suggest that Ethiopia was at severe risk of planning, implementing, supervising and evaluating modern preschool education. The modern preschool education was neglected for several years in Ethiopia even though modern education had its root in the nation before more than a hundred years back. Some effort was made between the years 1974 to 1990 to open the Kebele-based Kindergartens. This was an effort simply to imitate the socialist countries like the German Democratic Republic. After the fall of the Dergue (military) regime, the Ethiopian government made attempt to include the modern preschool education (MoE, 2002) of the nation as a level of preparatory for primary education. Since then, preschool education is being run by private owners. This is indeed a promising endeavor but confined only to the Ethiopian urban centers.

In Ethiopia, the need for pre-school education has alleviated the growing recognition that the program can promote all aspects of preschoolers' growth who are the future citizen of the country. Hence, the idea of pre-school education was given an essential area in the education and training policy of the country. However, according to Tirussew (2007) indicated that accessibility of preschool education to the children is still insignificant. The finding also revealed that the government has left preschool education for the private sector, religious organization and communities. Moreover, the private pre-school education fee charges are too high for many Ethiopian families who cannot afford to pay. Hence, most of children who live in countrysides and those from low income generating do not have access to preschool education. Due to this reason, there has been a poor attainment of children in pre-school education in the country.

In addition, some research findings conducted in a different part of the country indicate that preschool education was poor in quality (Bizunesh, 1983; Gezahegn, 2005; Temesgen, 2006). Currently, kindergarten school practice shows that the program is being run by private owners, nongovernmental bodies, members of communities and the governments recently open attached to primary schools. This setting has now become an issue of debate and discussion among parents, teachers, and researchers concerning the access, equity and quality of pre-school education. Therefore, factors influencing participation in pre-school education: its implication to quality-education at Harar, Chiro and Dire Dawa town was the main concern of the study.

1.2. Objective of the study

The general objective of the study was to investigate factors influencing participation in pre-school education and its implication to quality-education. Specifically, the specific objectives of study were intended to

- assess factors influencing participation in preschool education at Harar, Chiro and Dire Dawa
- Identify the influence of physical setup, learning materials and environment, indoor, outdoor activities & facilities in the study area
- explain the degree to which pre-school teachers' salary influence children's learning in the area
- compare whether there was statistically a significant mean difference among the three centers or not
- compare whether there was statistically a significant mean difference between the professional experience of preschool teachers

2. Literature Review

The Government of Ethiopia has adopted the Education for All (EFA) goals of ensuring universal access to and completion of basic education and reducing the adult illiteracy rate by half in 2015. Coverage and access to pre-school education for children between 4-6 years of age are very limited, as only 2.1 % of the total number of children in the appropriate age has access to pre-school education and services, and this is limited to children in major towns and it hardly exists in the rural areas. In 2001/2, one third or 32 % of the country's total preschool enrolment was only in Addis Ababa, the capital city of the country.

The concept of PSE dates back to the 17th century Ethiopian philosophers Zär'a Ya'aqob and his disciple Wäldä Haywat (Sumner, 1986) while others associated its development to religious education given to children at the age of four in which children learnt alphabets in church services in medieval Ethiopia. The first modern kindergarten was established in Dire Dawa for the children of French consultants who were helping the construction of the first railroad in Ethiopia, and the number of kindergartens in the country grew to 77 in 1974 and 912 in 1990 (MoE, 2002). Most of these pre-schools are run by private individuals, religious institutions, and nongovernmental organizations. The increase in the number of private and public preschools underscores the growing belief that preschool education should become an integral component of public education.

The gross enrolment rate of children 4-6 years in kindergarten was estimated at 2.7% in 2005/06 which was a little higher than 2.3% of the previous year. Figures could be slightly higher since figures from some private school enrolment are not captured. The report pointed out a regional disparity in access as indicated by 40.3 % in Addis Ababa and 0.5% in Afar. All the other regions except Harari, Dire Dawa, Benishangul-Gumuz and SNNPR have GER less than the national average of 2.0%. The current situation cannot be confirmed for lack of data. The report concurs that expanding access to the pre-school programme will enhance the quality-education and improving the internal efficiency of primary schools and also enhances children's chances of success in the education system

2.1. Preschool teacher-related factors

Although teacher education has a long history of teacher training and education, preschool teacher education is a very recent phenomenon in Ethiopia. Training of preschool teachers is carried out as a shared responsibility between the government, nongovernmental organizations and the private sector. Moreover, the unattractive salary of pre-school teachers, particularly in kebeles (a very small unit of administration) and public owned kindergartens, has led to a high turnover of preschool teachers, making pre-school teachers/ children ratio high. Teacher/pre-schooler ratio could be as large as 1:141 in Gambela region or as low as 1:17 in Addis Ababa

region while the national average is 1:26. This is an indication of a wide range of variation with implication for the quality of service provided in these centers.

The pre-school trained preschool teachers to children ratio is high. There is a lack of monitoring to maintain the standard of the curriculum and other facilities in pre-schools and also in the training of preschool teachers. The importance of preschool teacher training and competence in the medium of instruction from the kindergarten to higher education was emphasized in the MoE (2008/09), under Article 3.4.5. The policy expressed the desire for a professional career structure to be developed with respect to preschool teachers' professional development (Article3.4.7). The development of training standards, profile of preschool teachers and career structure for all teachers is being pursued in other levels of education except for pre-school teachers. No mechanism has been introduced to ensure the quality in the type of education pre-school teachers receive, and as such, there are no standards set to guarantee the desired teacher profile and professional career structure for pre-school teachers.

Although the various documents (Education and Training Policy (ETP) and Education Sector Development Programme (ESDP-III) have clearly indicated that the government's role is limited to setting standards and monitoring them; the responses of the appropriate authorities revealed that little or no effort has been put to maintain the quality of pre-school teachers' training programmes. As reported by the Head of Pre-school and Primary Education section of the City Government of Addis Ababa Education the sub-cities (currently responsible for secondary school and teacher training programmes) are not ensuring the standard and quality of pre-school teacher education program in the capital city.

There is either no or weak supervision of the activities of pre-school Teachers' Training Institutes (TTIs) and the procedure for granting licenses could be dysfunctional. The report of the City Government of Addis Ababa Education Bureau indicated that significant numbers of pre-school teacher education centers are set up in buildings that are not initially established for the purpose. Hence, most of these institutions have no auditorium, appropriate playground, toilet rooms separate for males and females, offices for pre-school teacher educators, and lack appropriate educational materials like books in the area.

2.2. Government policies and programmes on Preschool Education (PSE)

The Education and Training Policy indicated that "kindergarten will focus on all-round development of the child in preparation for formal schooling and also alluded to the fact that pre-primary educational opportunity has significant importance since it introduces children to basic learning skills that are needed in primary schools and enhance their chances of success in the education system. The government has planned to popularize and expand pre-school education, expanding pre-school teachers training in twelve teacher training institutes, developing and producing educational and play materials in local languages, training para-professionals at the grassroots level to work in kindergartens, and issuing laws and decrees to motivate investors in the sub-sector (MoE, 2002).

Based on the Education and Training Policy (ETP, 1994), a twenty-year (1997-2015) indicative plan was developed in 1997 to cover all levels and areas of education, all tiers of governments and all forms of expenditures with the aim of increasing access, improving quality, increasing effectiveness, achieving equity and expanding finance at all levels of education within the country (MoE, 2015). The first five-year plan of the ESDP-I was launched within the framework of the ETP and the following three-year ESDP-II plans did not consider preschool education (PSE) as necessary. Not until the third five-year ESDP-III plan, was PSE given the needed policy support by the government to create a conducive policy environment and support mechanisms for the participation of various stakeholders.

3. Methods

Descriptive survey research designs were employed to investigate factors influencing participation in preschool education and its implication to quality-education at Chiro, Dire Dawa and Harar Towns. The researcher selected this design because it helps him follow the procedures to collect quantitative data in which he used to administer a survey to the entire population to describe the attitudes, opinions, behaviors or characteristics of the population. In this procedure, a survey researcher can collect quantitative and qualitative data using questionnaires and observational checklists (Creswell, 2012). Descriptive survey research designs also interpret the meaning of the data by relating results of the statistical test to past research studies.

3.1. Population, sample size and sample selection procedure

The target population for this study consisted of preschool teachers at Chiro, Dire Dawa and Harar Towns in Eastern Ethiopia. The sample used for this study consisted of these three towns' preschool teachers' from 16 pre-schools (private, religious, public and government). 104 pre-school teachers were taken from 140 populations. Out of 140, 99 (95.20%) of them were returned the questionnaires to the researcher. Stratified random sampling technique was employed because firstly, there were different subdivisions in the targeted population which are important to be considered. Secondly, there were also variations in population sizes of different strata in this case (sex, schools and towns).

3.2. Instrumentation-questionnaire and observation checklists

A four-section questionnaire was used to collect relevant data. Section-I consisted of information about socio-demographic data; section-II consisted of the factors influencing participation in preschool education; section-III consisted of items focusing on preschool teachers' salary, and section-IV consisted of the extent to which preschool teachers were qualified to the required professional competence in preschool education to provide quality education to children. A pilot study was conducted on thirty preschool teachers (10 males and 15 females) who represented the population character but not the sample to check the reliability and validity of the items by using Cronbach Alpha and experts respectively.

Accordingly, the researcher was able to decide the characteristics of the questionnaire that needed to be adjusted or remained or to be changed in some technical words or phrases that seemed to be technical for these respondents. The reliability of the questionnaire was, therefore calculated as 0.79, 0.82 and 0.78 for the 2nd, 3rd and 4th sections of the questionnaire which were highly reliable respectively. Therefore, it was safe to use them with a little modification. The validity was tested by expert and well-experienced preschool teachers over the area. The questionnaire was administered on face to face basis so that the distributed questionnaires were collected from these respondents after they were completed filling them.

3.3. Data analysis

For proper understanding and evaluating of the purpose of the research questions raised and to ultimately achieve the research objectives, different techniques of data analysis were employed. The descriptive statistics such as frequency, percentages, means and standard deviation were used to summarize the socio-demographic variables of the respondents and respondents' response to factors influencing participation in preschool education: its implication to quality-education in Eastern Ethiopia while inferential statistics (chi-square test, one way ANOVA and factor analysis) were used to show the associations between variables, the mean differences among groups and average relationship among variables. The level of significance was set to be at $\alpha = 0.05$. Moreover, the data collected from observational checklists were narrated thematically so as to substantiate the quantitative findings.

4. Results and discussion

This chapter has two parts: the first part deals with the characteristics of the respondents, and the second part presents the analysis and interpretation of the main findings**.** To this end, both quantitative and qualitative data were gathered through a questionnaire and observational checklists. The data gathered through observational checklists were supposed to supplement the quantitative data. The questionnaire was distributed to 104 preschool teachers from 16 schools; 99 (95.20%) copies were returned. The respective quantitative data were analyzed quantitatively using frequency, percentage, mean, standard deviation, chi-square test, one-way ANOVA, and factor analysis. On the other hand, the triangulations were made to check the consistencies and variations of the result obtained from both instruments. The analyzed data were compiled and organized in a way that it suits the interpretations of the results in addressing the research questions. In this way, 10 tables were constructed in categorizing the objectives of the study in thematic groups in details to deal with the responses of the participants. The quantitative data obtained from respondents were analyzed using the Statistical Package for the Social Sciences (SPSS version 16).

4.1. Summary of sample characteristics

The analysis of this sub-topic was included sex, age, qualifications and salary of the respondents under the study.

Table 1. *Sex versus pre-school teachers' cross-tabulation*

Sex	Pre-school teachers				Percentage (%)	df	χ^2
	Dire Dawa Center	Chiro Center	Harar Center	Total			
Female	39	10	38	87	87.88	1	56.82
Male	8	2	2	12	12.12		
Total	47	12	40	99	100		
Percentage (%)	47.48	12.12	40.40	100			

As it was indicated in Table1, the majority, 87 (87.88%) of the pre-school teachers were females whereas 12 (12.12%) of them were males. From this data, one can imply that female preschool teachers have highly been employed than their counterpart males. As it was also observed from the same table given above, the majorities, 47(47.48%) of the respondents were from Dire Dawa Center; 40 (40.40%) of them were from Harar whereas 12 (12.12%) of the respondents were from Chiro Center. However, the computed chi-square test for goodness-of-fit at $\alpha = 0.05$, $\chi^2 (1) = 56.82$ which was much greater than the critical region at $\alpha = 0.05$, $\chi^2(1) = 3.84$. Therefore, it was concluded that there was statistically a significant proportion between female and male preschool teachers in general, $\chi^2 (1) = 56.82$, $p < 0.05$, one-tailed. Moreover, from the observational checklists, it was found that there was a very high proportional difference between the number of female and male preschool teachers in these three towns under the study.

Table 2. *Age versus preschool centers cross-tabulation*

Age	Pre-schools teachers				Percentage (%)
	Dire Dawa Center	Chiro Center	Harar Center	Total	
Below 25	11	2	6	19	19.19
25-30	24	5	14	43	43.43
30-35	9	2	12	23	23.23
35-40	1	1	3	5	5.05
Above 41	2	2	5	9	9. 10
Total	47	12	40	99	100

Table2 was revealed that the majorities, 43 (43.43%) of the respondents were between 25-30 years old; 23(23.23 %) of them between were 30-35 years old; 19 (19.19%) of them were found below 25years old; nine (9.10%) of them were beyond 41 years old whereas five (5.05%) of them were found between 35-40 years old. This indicates that almost the sampled respondents were young adults who can be the sources of further professionals' development if the succession plan has been in the place.

Table 3. *ANOVA Table on experiences of the preschool teachers (n_i = 99, $p < 0.05$)*

Centers	SV	SS	df	MS	F	Sig.
Dire Dawa Center	Between Groups	7.25	2	3.63	6.25	0.002
Chiro Center	Within Groups	55.67	96	0.58		
Harar Center	Total	62. 92	98			

As was indicated in Table3, the computed F-ratio at α 0.05, F (2, 96) = 6.25 which was very much greater than the critical region at α 0.05, F (2, 96) = 3.09. Therefore, it might be concluded that there was a statistically significant mean difference among the three towns' preschool teachers' teaching experiences, F (2, 96) = 6.25, p < 0.05, one-tailed. In supporting this finding, MoE (2002) directed that role of well experienced pre-school teachers in preschool education was very important for teaching fairness that is, for providing equal opportunity. There is considerable evidence that the preschool educational experiences of children vary a great deal with teachers' teaching experiences that is; children from poorly experienced preschool teachers tend to enter primary schooling (grade 1-8) with significant educational disadvantages as compared to children from well-experienced preschool teachers.

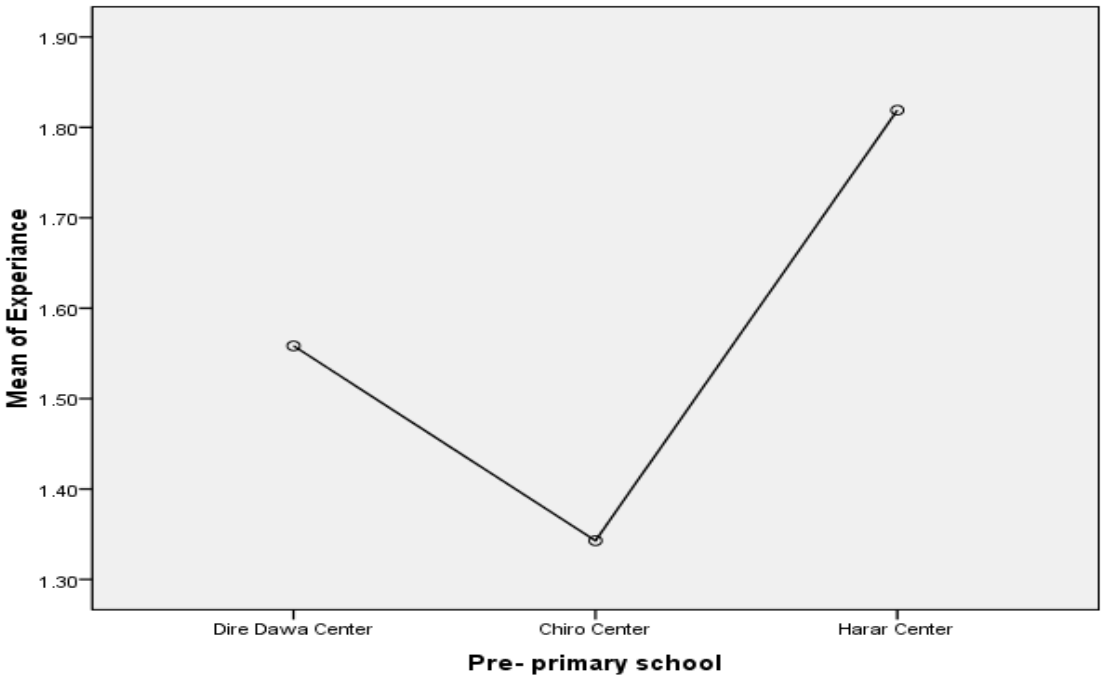

*Figure1.*Preschools teachers' experience

From this figure, it was understood that Harar center was got the most experienced preschool teachers followed by Dire Dewa centers and Chiro centers. From this, it could be implied that Chiro center's preschool education schools were taught by less experienced teachers. This might be because of the fact that Chiro center was less developed by infrastructures, facilities and job alternatives than both the Harar centers- as it was the capital city of Harari Regional States and Dire Dewa- as the second City Administration of the country next to Addis Ababa- the capital city of the country.

Table 4. *Experiences versus preschools teachers' gross salary cross-tabulation*

Salary in Ethiopian Birr	Preschool				Percentage (%)
	Dire Dawa Center	Chiro Center	Harar Center	Total	
500-1000	20	5	19	44	44.44
1000-1500	14	5	14	33	33.34
1500-2000	5	0	3	8	8.08
2000-2500	4	2	1	7	7.07
Above 2500 birr	4	0	3	7	7.07
Total	47	12	40	99	100

As it was seen from Table 5, the majority, 44 (44.44%) of the pre-school teachers was paid 500 to 1,000 Ethiopian Birr which could be equivalent to $ 27 US dollars as their gross salary; 33 (33.34%) of them were paid 1,000 to 1,500 Ethiopian Birr which was equivalent to $ 45 US dollars as their gross salary; 8 (8.08%) of them were paid 1,500 to 2,000 Ethiopian Birr which was $62.5 US dollars as their gross salary; 7 (7.07%) of them were paid 2,000 to 2,500 Ethiopian Birr which was equivalent to $ 80.36 US Dollars as their gross salary whereas 7 (7.07%) of them were paid above 2,500 Ethiopian Birr which was equivalent to $ 90 US Dollars as their gross salary. This indicates that most preschool education teachers were paid a very low payment. This could indicate that these preschool teachers have been given very low attention to their professional fees. This may also result in low motivation towards the profession, which in turn resulted in termination from the profession in search of other better job alternatives for better payment.

Table 5. *ANOVA Table on pre-school teachers' salary*

Centers	SV	SS	df	MS	F	Sig
Dire Dawa Center	Between Groups	4.94	2	2.45	1.69	0.186
Chiro Center	Within Groups	139.00	96	1.45		
Harar Center	Total	376.90	98			

As it was indicated in Table5, the computed F-ratio at $\alpha = 0.05$, $F(2, 96) = 1.69$ which was very much less than the critical region at α 0.05, $F(2, 96) = 3.09$. Therefore, it might be concluded that there was no statistically significant mean difference among the three towns' preschool teachers' gross salary, $F(2, 96) = 1.69$, $p > 0.05$, one-tailed. In supporting this finding, Biersteker (2010); MoE, (2008/09) stated that there were major resource implications

for the number of preschool teaching staff that are required to reach stated enrolment targets in Ethiopia. Preschool teachers' status and remuneration might affect rates of attrition and the quality of candidates that apply to teach PSE. If wages offered to PSE teachers are lower than for primary teachers, the status will be lower compared to their peers in the primary grades, and there will likely be higher attrition and lower confidence that candidates capable of learning skills will join the training programme.

In support of this idea, Garcia et al. (2008) confirmed that a career structure that proposes development pathways for all preschool teachers, irrespective of their route of entry to the profession, can help to transfer status. By incorporating the career tracks of staff that traverse between PSE and early grades of primary schooling, such a structure can improve coherence and standardization in employment status and versatility of teachers (Richter et al. 2014). For locally recruited preschool teachers (recruited for example by the school community), wage sustainability and integration into the school environment and teaching profession more generally needed to be considered and a link to a formal career structure can assist this.

Table 6: *Type of preschool education versus pre-schools cross-tabulation*

Type of preschool Education	Pre-schools				Percentage (%)
	Dire Dawa Center	Chiro Center	Harar Center	Total	
Public	2	2	2	6	6.06
Private	34	6	26	66	66.67
Government	9	4	8	21	21.21
Religious Organization	3	0	4	7	7.07
Total	47	12	40	99	100

As it was indicated that in Table 6, the majorities, 66 (66.67%) of the pre-school teachers were from private schools of all the three towns; 21 (21.21%) of them were from government schools of all the three towns; 17 (7.07%) of them were from Religious Organizations of all the three towns whereas 6 (6.06%) of them were from public schools of all the three towns schools. From this one can suggest that there is a big gap among these institutions that could not be paid attention from the major stakeholders in the country in general and the study sight in particular.

To support this finding, Sumner (1986) stated that the concept of PSE dates back to the 17th century Ethiopian philosophers Zär'a Ya'aqob and his disciple Wäldä Haywat) while others associated its development to religious education given to children at the age of four in which children learnt alphabets in church services in the medieval Ethiopia. The first modern kindergarten was established in Dire Dawa for the children of French consultants who were helping the construction of the first railroad in Ethiopia; and the number of kindergarten in the country grew to 77 in 1974 and 912 in 1990 (MOLSA and MoE, 1990). Most of these pre-schools are run by private individuals, religious institutions, and nongovernmental organizations. The increase in the number of private and public preschools underscores the

growing belief that preschool education should become an integral component of public education.

Table7: *ANOVA Table on types of preprimary schools*

Type of PSE	SV	SS	df	MS	F	Sig.
Dire Dawa Center	Between Groups	0.69	2	0.35	0. 80	0.45
Chiro Center	Within Groups	41.77	96	0.44		
Harar Center	Total	42.46	98			

As it was indicated in Table 7, the computed F-ratio at α 0.05, F (2, 96) = 0.80 which was very much less than the critical region at α = 0.05, F (2, 96) = 3.09. Therefore, it might be concluded that there were no statistically significant mean differences among the three towns' preschool teachers' training in all private, religious, government and public schools, F (2, 96) = 0.80, p > 0.05, one-tailed.

In contrast to this finding, there is only one government-owned preschool education teachers training institute at Kotebe College of Teacher Education. Most of the regions (Somale, Afar, Benishangul-Gumuz, and Gambella) have no pre-school teachers training institutes; and very limited number of pre-school teacher training institutes exist in Oromia and Harari, which are currently not functional (Tirusew, 2007). The trainees at pre-school teacher education department of Kotebe College of Teacher Education get ten-month certificate training while training at the private pre-school teachers training institutes train pre-school teachers for between three to ten months. This is indicative of the wide variety of training programmes, modalities, standards and contents of training in privately owned PSE Teachers' Training Institute. Hence, there is a lack of harmonization of qualification for pre-school teachers in the country.

Table 8: *Preschool teachers per student ratio versus centers cross-tabulation*

Items involving yes or no	Pre-schools				Percentage (5%)	df	χ^2
	Dire Dawa Center	Chiro Center	Harar Center	Total			
No	28	8	32	67	66.68	2	4.42
Yes	19	4	8	31	33.32		
Total	47	12	40	99	100		

As it was shown in Table 8 that the majorities, 67 (66.68%) of the pre-school teachers were responded that the existed number students per class were not suitable to assist each student according to her/ his ability. Moreover, the open-ended questionnaire filled by these respondents generally indicated that almost more than half of them replied that class size was

a major problem in providing children with necessary support according to their abilities. More specifically, pre-school teachers from private institutions completely denied the reality and the impact of class size on students' academic achievement; 31(33.32%) of them were responded that the existed number of students per class was suitable to assist each student according to her/ his abilities.

Moreover, the computed independent chi-square test at $\alpha = 0.05$, $\chi_2 (2) = 4.42$ which was less than the critical region at $\alpha = 0.05$, $\chi_2 (2) = 5.99$. Therefore, it was concluded that there was no statistically significant proportion among teachers' students ratio in the three towns, $\chi_2 (2) = 4.42$, $p > 0.05$, one-tailed. Moreover, from the observational checklists, it was found that there was a very high proportional difference between the number of students to several preschool teachers' ratio in these three towns under the study. In support of this finding, MoE (2015) stated that the teacher/preschooler ratio could be as large as 1:141 in Gambela region or as low as 1:17 in Addis Ababa region, while the national average is 1:26. This is an indication of a wide range of variation with implication for the quality of service provided in these centers. The pre-school trained teachers/student ratio is high. There is lack of monitoring to maintain the standard of the curriculum and other facilities in pre-schools and also in the training of preschool teachers.

Table 9: *Sources of teaching materials in the curriculum of preschool education*

Sources of materials	%	SV	SS	df	M	F	Sig
India	27	Between Groups	22.56	5	4.51	5.64	0.00
America	22	Within Groups	73.90	92	0.80		
Ethiopia	17	Total	76.46	97			
Indian & Ethiopia	14						
American & Ethiopia	12						
Unknown sources	8						

As it was indicated in Table 9, the computed F-ratio at $\alpha = 0.05$, $F (5, 92) = 5.64$ which was very much greater than the critical region at $\alpha = 0.05$, $F (5, 92) = 2.31$. Therefore, it might be concluded that there were statistically significant mean differences among these nations from which the teaching materials and curriculum contents have been adopted, $F (5, 92) = 5.64$, $p < 0.05$, one-tailed. From observational checklists, it was found that much of the teaching materials and curriculum content for preschool education were adopted from Indian (27%), American (22%), Ethiopian (17%), Indian & Ethiopian (14%), American & Ethiopia (12%), and unknown sources (8%) respectively in descending order. From these analyses, it was found that most teaching materials and curriculum contents (83%) were not from indigenous sources as a source of knowledge. Only 17% of the sources of teaching materials and curriculum contents were adopted from indigenous knowledge which needed to be appreciated for further expansion for all schools rather than taking it from culturally different sources from other nation dominantly.

In support of this finding, Woodhead (2006); UNESCO(2007) explained that centre-based programmes, including pre-schools, for children from age 3 to school entry age require pedagogies and curricula that take into account the specificity of children's developmental capacities, ways of learning, and the social, language and cultural contexts within which they live. While locating a pre-school year in the primary schooling system has administrative and infrastructural advantages, this location can add pressure for a more formal primary-like approach (Garcia et al. 2008). These risks can be mitigated through, for example, preparation of age and developmentally appropriate learning and teaching methods combined with age-specific professional training and supervision. At the same time, the synergies between health, well-being and learning can be exploited to maximize benefits for children (Berry et al. 2013; and Curtis, 1998).

Table 10: *Factor analysis on-site, facilities, physical setups indoor and outdoor equipment in PSE*

Total variance explained

	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared Loadings		
Factors	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.31	19.25	19.25	2.31	19.25	19.25	2.26	18.85	18.85
2	2.06	17.17	36.42	2.06	17.17	36.42	1.57	13.12	31.97
3	1.47	12.25	48.67	1.47	12.25	48.67	1.51	12.54	44.51
4	1.31	10.92	59.61	1.31	10.92	59.61	1.50	12.48	56.99
5	1.12	9.33	68.98	1.12	9.33	68.98	1.44	11.99	68.98

Extraction method: Principal component analysis.

As Table 10 shows, the total variance explained through factor analysis was indicated that the eigenvalues for the 5 new factors. The column called Initial Eigenvalues and notices the value of 2.31 for factor-1. These eigenvalues (2.31) are equivalent to 19.25% (2.31/12 × 100) of the total variance when all 12 sites, facilities, physical setups indoor and outdoor equipment in PSE are considered. The next row shows eigenvalues of 2.06 for factor-2, which means that it accounts for 17.17% (2.06/12 × 100). The next row shows eigenvalues of 1.47 for factor-3, which means that it accounts for 12. 25% (1.47/12 × 100). The next row shows eigenvalues of 1.31 for factor-4, which means that it accounts for 10.92% (131/12 × 100). Finally, the next row shows eigenvalues of 1.12 for factor-5, which means that it accounts for 9.33% (1.12/12 × 100) of the total variance for all factors.

This percentage is not related to the variance of the first, second, third, and fourth component; therefore, the five components are taken together (19.25% + 17.17% + 12. 25% + 10.92% + 9.33%) was contributed 68.92% to the total variance for all factors

cumulatively. Since the eigenvalues for the rest factors were much less than 1, they could not be considered as the major factors variables even though they contributed 31.08% to the total variance all factors in PSE. This did not mean that they could not contribute to the PSE' site, facilities, physical setups indoor and outdoor equipment.

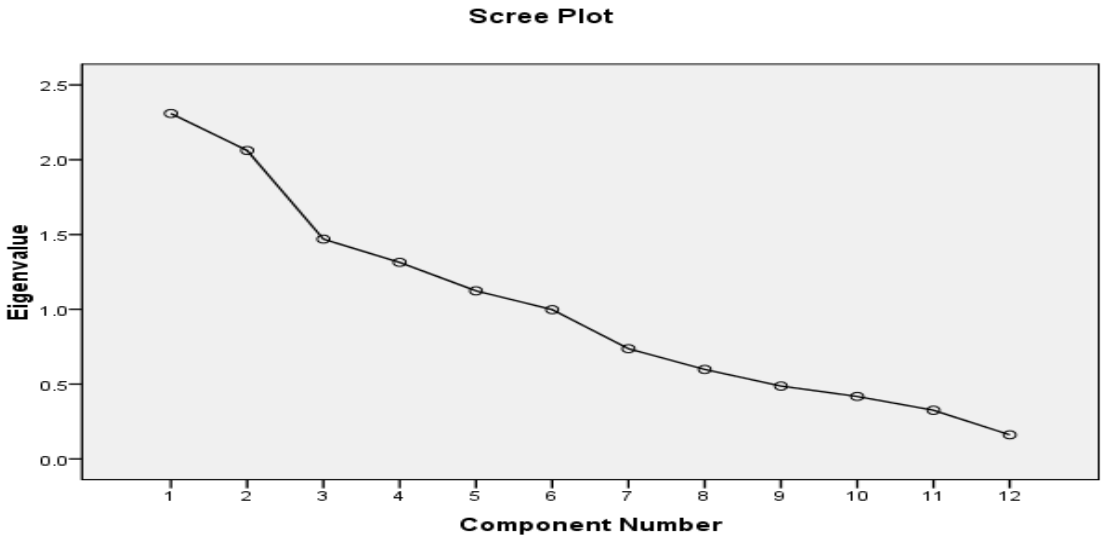

Figure 2. Scree plot of the total explained variances

4.2. Factors contributing to the quality of preschool education

From both open-ended items and observation checklists, it was found that preschool education programs have an opportunity to help children develop to their full potential. Children who attend programs that meet high-quality standards are more likely to provide lasting benefits. For instance, children who receive warm and sensitive care are more likely to trust people, to enter school ready and eager to learn, as well as to get along well with other children. Other factors that are predictors of good preschool education include: (i) small group sizes, (ii) high preschool teacher/student ratios, (iii) appropriate staff wages, (iv) well-trained staff, (v) a curriculum geared specifically to young children, and (vi) parental involvement.

In support of this finding, Yoshikawa (1995); ECCE(1997); Start point (1994) ; Garcia et al (1998); Bruce (1997) were providing that quality of preschool education and fostering a developmentally appropriate home environment can have long-lasting benefits for the child, the family, and the community as a whole.

5. Conclusions

87.88% of the pre-school teachers were females with a statistically significant proportion between their male counterparts in general. The majorities, 43.43% of the respondents were between 25-30 years old which might be used to indicate that they were young adults who can be the sources of further professional development if succession plan has been in place. On the other hand, there was considerable evidence that the preschool education experiences of children vary a great deal with preschool teachers' teaching experiences that is, children from poorly experienced preschool teachers tend to enter primary schooling (grade 1-8) with significant educational disadvantages as compared to children from well-experienced preschool teachers.

44.44% of the pre-school teachers were paid 500 to 1,000 Ethiopian Birr which is equivalent to $ 27 US dollars as their gross salary. This could indicate that these teachers have been given very low attention to their professional fees. This may also result in low motivation towards the profession, which in turn resulted in termination from the profession in search of other better job alternatives for better payment. However, there was no statistically significant mean difference between the three towns' preschool teachers' in their gross salary. Therefore, it should be concluded that there are major resources implications for the number of PSE teaching staff that are required to reach stated enrolment targets in Ethiopia. As basic salaries offered to PSE teachers are lower than for primary school teachers, their status will be lower compared to their peers in the primary grades, and there will likely be higher attrition and lower confidence that new candidates capable of learning skills will join the training programme.

66.67% of the pre-school teachers were from private schools of all the three towns (Chiro, Dire Dew, and Harar). This means that most of these pre-schools were run by private individuals, religious institutions, and nongovernmental organizations. The increment in the number of private and public preschools underscores the growing belief that preschool education should become an integral component of public education. On the other hand, 66.68% of the pre-school teachers had a number of students per class (1:45) which were not suitable to assist each student according to her/ his ability. This is an indication of a wide range of variation with implication for the quality of service provided in these centers. Besides, most teaching materials and curriculum contents (83%) were not from indigenous sources as a source of knowledge. Only 17% of the sources of teaching materials and curriculum contents were from indigenous knowledge which needs to be appreciated for further expansion to all schools rather than taking it from culturally different sources from other nation dominantly.

Finally, 68.92% of the total variance of the factors contributed to the quality of PSE were the site of the preschools, enough spaces for children practices, enough learning corners, enough instructional in learning classroom in-kind & in amount, and availability of instructional and curriculum materials to each child in the classroom. Children who receive warm and sensitive care are more likely to trust people, to enter school ready and eager to learn, as well as to get along well with other children. Some influencing factors affecting preschool education quality were (i) large class sizes, (ii) high teacher/child ratios, (iii) low staff salaries, (iv) lack of well-trained staff in preschool education, (v) poor curriculum geared specifically to young children, and (vi) lack of parental involvement to PSE.

6. Recommendations

Continued scientific research on brain development and early learning is needed. Policymakers should be clear about what they expect children to be able to do when they enter school so that preschool education can be geared toward specific measurable goals. More coordination is needed for the full range of preschool programs and ministry of education of the country (Ethiopia) should work to ensure adequate preschool teacher training and curriculum development. Full funding should be provided for the program and similar programs as well as full-day preschools, thereby giving all children a good shot at entering school ready to learn.

Quality of preschool education should produce important long-term improvements in the intellectual and social development of disadvantaged children. However, many families, but particularly low-income families, do not have access to the quality of preschool education programs. Ministry of Education of the country (Ethiopia) should invest more in both the quantity and quality of preschool education and not squander the opportunity for potential gains for children.

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