

Assessment Practices Among Early Childhood Educators in the TEMA West Metropolis, Ghana

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ABSTRACT

The study sought to investigate the assessment practices deployed by early childhood educators, establish the gender and professional qualification differences in the assessment practices of the educators and examine the challenges teachers encounter in the use of assessment practices in the Tema West Metropolis, Ghana. Two research questions and hypotheses guided the study. Descriptive survey design was used for the study. The instrument for data collection was a self-constructed 4-point Likert type scale questionnaire. The study covered 200 ECE teachers within 40 basic schools in the Tema West metropolis. Census technique was used to select the participants for the study. Descriptive statistics (mean and standard deviation) were used to analyze data obtained with respect to each research question. Populated T-Test analysis was also used to analyze the responses of the teachers with respect to each research question. Again, Independent sample T-test and One-Way ANOVA were used to test the hypothesis 1 and 2 respectively. It was evidenced from the study that the teachers in the Tema West Metropolis use of some formative assessment practices among which were, building of portfolio, the use of observation, informal conversation, self and peer assessment as well as performance-based assessment. Notwithstanding this, the teachers still engage in the use of formal or traditional assessment practices such as pencil and paper tests which is not healthy for the holistic development of children during their early years of education. Furthermore, while the assessment practices of teachers in the Tema West Metropolis are significantly the same across male and female categories, the assessment practices of teachers differ significantly across the teachers' professional qualifications. Major challenges that confront ECE teachers in assessing children during their early years are inadequate indoor and outdoor resources for assessing children, lack of understanding of children's assessment outcomes, overcrowding or large number of children among others. The study concludes therefore that although teacher in the Tema West Municipality use some formative assessment, there is still a high use of pen and paper test among the teachers. The study recommended that the teachers should be sensitized through series so professional development training and workshops on the negative effects of pen and paper tests on children to discourage them from using these traditional forms of assessment practices which do not help the holistic development of children, it is also recommended among others that the the educational directorate in the metropolis through the help of Ghana Education Service (GES) should identify other sources of funding like appealing to NGOs to help provide teaching and learning materials for teaching and assessing children in the metropolis.

Keywords: Assessment, Practices, Early Childhood Education, Challenges, Educators.

INTRODUCTION

Accurate assessment of children is disreputably difficult and hence needs clear guidelines regarding the nature, functions and the use of early childhood assessment practices that are appropriate for use in culturally and linguistically diverse situations for children at that level. Assessment of children is difficult because the development of children during their early years occurs very rapidly, episodically and very susceptible to environmental conditions (Shepard, Kagan, & Wurtz 1998). It is crucial to, therefore, recognise the unique nature of children's development to assess them appropriately. Gullo (2006) indicated that assessing children from birth through the pre-school years is complex and different from the assessment of older people; not only can young children not write or read, but a young developing child presents different challenges that influence the teachers' choice of assessment strategies. Despite the challenges associated with assessing children during their early years of education, Early Childhood Education teachers are expected to integrate developmentally appropriate assessment practices throughout their instructional periods to monitor students' achievement, and progress and make informed decisions to meet mandated standards (Gullo & Hughes, 2011; Stiggins, 1991).

Goodwin (2000) defined assessment as the process of determining through observation or testing, an individual's traits or behaviours, a program characteristic, or the properties of some other entity and then assigning a number, rating or score to that determination. Early childhood assessment is defined by Hills cited in Bronson (1994) to involve multiple steps of collecting data on children's development and learning, determining its significance in light of the programme goals and objectives, incorporating the information into planning for individuals and programme, and communicating the findings to parents and others. From these definitions, it could be argued that the assessment of young learners involves multiple and a variety of approaches to generate a comprehensive understanding of young learners' skills and needs.

Although there are broadly, two main forms of assessment (formal/traditional and informal/alternative assessment), the use of informal/alternate assessment in Early Childhood Education has been documented and advocated in several earlier studies. For instance, Spinelli (2008) emphasized that due to the increasingly diverse population of early-grade learners in our schools today, it is important that early childhood educators employ and use alternate assessment practices to traditional assessment practices. The documented preference of assessment for early childhood educators and other adults working in this field is to choose informal assessment rather than standardized testing in young children's assessment procedures.

In young children's assessment process, early childhood educators must apply different informal assessment practices to support children's learning and development. Observation, checklists, anecdotal records, running records, portfolios, rubrics, teacher-designed strategies, and performance-based strategies are defined and established informal assessment practices in Early Childhood Education (Guddemi & Case, 2004; Wortham, 2007). Although different strategies are applied to assess children's learning, observation has a role as the base of informal assessment because most of the critical information about children's development can be gathered by observing children's behaviours.

The increasing demand in Early Childhood Education worldwide has brought great reform in early years education to include the integration of assessment throughout instructions to support academic learning while retaining developmentally appropriate pedagogies (Roach, Wixson, & Talapatra, 2010; US Department of Education, 2010), there have been several studies which documented tested and developmentally appropriate assessment practices to be used during early years' education. These documented assessment practices involve but not limited to actively engaging students in monitoring their learning through self, peer, and instructor-based feedback assessment (Assessment Reform Group, 2002), with the aim of not only supporting academic content learning but also building learner independence through metacognitive and self-regulation development. Other developmentally appropriate assessment practices include observation (in the form of checklist, anecdotal records, time sampling among others), portfolios and interviews (Beaty, 1990) among others.

Regardless of the documentation of developmentally appropriate assessment practices for assessing children such as observation, portfolios, interviews etc., it has been observed at Tema West Metropolis that, pen and paper test as well as single test score is used as a basis for grouping and retaining children in grades within the Tema West Metropolis. Again, during a workshop for Early Childhood Educators held in the Metropolis in 2019, the metropolitan coordinator for Early Childhood Education indicated that the usage of alternate assessment practices such as observation, informal conversation, portfolio among others is very low within the metropolis. She continued to caution that; teachers need to make all efforts to minimize the use of pen and paper tests especially at the kindergarten level and maximize the use of other documented alternate assessment practices (Tema Municipal ECE Coordinator, 2019). This observation was an evident that the effort made by relevant stakeholders to address the issues of best assessment practices at Early Childhood Education level has not yield appreciable results.

Despite this observation and presentation by the ECE coordinator at the metropolis which was just a mere observation and does not follow any empirical procedure, it was also noticed by the researchers that there has not been any routine or periodic effort to examine the assessment practices that are being used by early childhood educators and the extent to which these assessment practices are consistent with recommended early childhood assessment practices in the Tema West Metropolis within the Greater Accra Region of Ghana. Earlier studies conducted on the education of children do not investigate nor do they report on the assessment practices of teachers as well as the influence these practices have on the academic performance of learners in the Tema West Metropolis. It is prudent therefore to ask; what are the prevailing assessment practices at ECE level in the Tema West Metropolis? Are the assessment practices of ECE teachers in line with the recommended practices? Answers to these possess are important but they are not readily available in the literature. Finding empirically supported answers to these questions therefore constituted the problem that this study was designed to address.

Research Objective

The study sought to:

1. Investigate the assessment practices deployed by early childhood educators in assessing children in the Tema West Metropolis, Ghana.

2. Establish the gender and professional qualification differences in the assessment practices of the educators in the Tema West Metropolis, Ghana.
3. Examine the challenges Early Childhood Education teachers encounter in the use of assessment practices in the Tema West Metropolis, Ghana.

Research Question

The study was guided by the question:

1. What are the prevailing assessment practices deployed by teachers in assessing children in the Tema West Metropolis, Ghana?
2. What are the challenges Early Childhood Education teachers encounter in the use of assessment practices in the Tema West Metropolis, Ghana?

Hypotheses

- H_0 1: There is no statistically significant difference in the assessment practices of male and female teachers in the Tema West Metropolis.
- H_1 1: There is a statistically significant difference in the assessment practices of male and female teachers in the Tema West Metropolis.
- H_0 2: There is no statistically significant difference in teacher's assessment practices and professional qualifications.
- H_1 2: There is a statistically significant difference in the assessment practices of teachers and professional qualifications.

METHODOLOGY

A descriptive survey research design was adopted and used for this survey. A time-based approach was taken to measure the relevant variables, and no attempts were made to manipulate any of the variables examined in this investigation. The study focused on all Basic schools in the Tema West Metropolis, Ghana, as well as all of its ECE teachers. The accessible population was, hence, made up of 40 Basic Schools and 200 Early Childhood Education teachers. A census technique was used to select the participants for the study. This implies that all ECE teachers working in the Basic schools within the metropolis were used for the study. The instrument of data collection was a self-constructed 4-point Likert-type scale questionnaire.

There were two sections on the questionnaire. Items in section A were used to elicit the demographic data of the participants and section B elicited responses on the assessment practices deployed by ECE teachers in assessing children. There were three (3) items in section A and twelve (12) items in section B of the questionnaire. The rating format (options) ranges from Very Often (4); Often (3); Sometimes (2); and Never (1). Cronbach's alpha coefficient was used to determine the consistency of the instrument. The result of the internal consistency reliability alpha coefficient for the items in Section B of the instrument was .871 and the overall reliability alpha coefficient for the instrument was .792 indicating that the instrument met the threshold to be used for the study (Dörnyei & Taguchi, 2010). Descriptive statistics (mean and standard deviation) were used to analyze data obtained concerning the assessment practices of ECE teachers while frequency and percentages were used to analyse the demographic data of the participants. Again, One Way ANOVA and Independent sample T-test were used to test the hypothesis raised for the study respectively.

RESULTS

Demographic Data of Participants

To ascertain the demographic characteristics of the participants, the participants were asked to provide information concerning their sex, age range and professional qualifications. Data obtained on the demographic characteristics of the participants were presented and analysed in Tables 1 to 4 respectively.

Table 1: Sex of Respondents

Sex	Frequency (F)	Percent (%)
Male	49	24.5
Female	151	75.5
Total	200	100.0

Field Data, 2021

Data from Table 1 indicated that the majority of the respondents who participated in the study were females. This is evidenced by the table as 151 (75.5%) of the respondents were females while 49 (24.5%) were males.

Table 2: Age Range of Respondents

Age Range	Frequency (F)	Percent (%)
Below 25	3	1.5
26-30	46	23.0
31-35	48	24.0
36-40	78	39.0
41 and above	25	12.5
Total	200	100.0

Field Data, 2021

Table 2 illustrates the age range of the respondents involved in the study. Data in the table suggest that out of the 200 respondents used for the study, 78 (39.0%) were between the age range of 36 and 40, 48 (24.0%) were between 31 and 36years, 46 (23.0%) were between 26 and 30years. Also, 25 (12.5%) of the respondents were 40 years and above while 3 (1.5%) of them were below 25 years of age. These results as presented in Table 2 implies that teachers who deliver Early Childhood Education in the Tema West Metropolis were within their youthful ages. This was in line with a report submitted by Jennings and Onwuegbuzie (2001) that, more young people are now building interest in early childhood development programmes, unlike two or three centuries ago, when older people were found in Day-Care and pre-school programmes with the notion that older people have vast experience and can care for younger children.

Table 3: Professional Qualification of Respondents

Professional Qualification	Frequency (F)	Percent (%)
Teachers Certificate 'A'	17	8.5
Diploma in Early Childhood Education	46	23.0
Diploma in Basic Education	56	28.0
Bachelor of Education (Early Childhood)	63	31.5
Bachelor in Basic Education	18	9.0
Total	200	100.0

Field Data, 2021

Data in Table 3 indicates that 63 (31.5%) of the respondents had a Bachelor's degree in Early Childhood Education while 46 (23.0%) had a Diploma in Early Childhood Education. 56 (28.0%) of the respondents had a Diploma in Basic Education while 18 (9.0%) had a Bachelor's degree in Basic Education. 17 (8.5%) respondents, however, possess Teacher Certificate 'A'. Data presented in the table suggest that the majority of the respondents in the Tema West Metropolis used for the study specialized in Early Childhood Education.

Assessment Practices Deployed by Teachers in Assessing Children

To promote the learning and development of young children, early childhood educators must use a variety of informal assessment techniques. It is, therefore, paramount to investigate the assessment practices ECE teachers in the Tema West Metropolis employed and used in assessing children during their early years of education. Data obtained on the assessment practices of teachers were presented in Table 4 and interpreted as such.

Table 4: Analysis of Prevailing Assessment Practices

Statement	VO	O	S	N	Total	Mean	SD
I build portfolios on the learning outcomes of children to assess them	123(61.5%)	65(32.5%)	09 (4.5%)	03 (1.5%)	200(100%)	3.54	.656
I use narrative observation as a means of assessing children's learning	83(41.5%)	86(43.0%)	31 (15.5%)	00 (0.0%)	200(100%)	3.26	.711
I have informal conversations with children to assess learning outcomes	94(47.0%)	75(37.5%)	27 (13.5%)	04 (2.0%)	200(100%)	3.30	.775
I use teacher-made tests (pencil & paper) to assess the learning of children	94(47.0%)	67(33.5%)	28 (14.0%)	11 (5.5%)	200(100%)	3.22	.886
I use performance-based assessment in assessing the learning of children	88(44.0%)	73(36.5%)	38 (19.0%)	01 (0.5%)	200(100%)	3.24	.772
I use standardized tests to assess the learning outcomes of children	89(44.5%)	73(36.5%)	24 (12.0%)	14 (7.0%)	200(100%)	3.19	.903
I use and encourage self-assessment among children	112(56.0%)	69(34.5%)	16 (8.0%)	03 (1.5%)	200(100%)	3.45	.707
I use and encourage peer assessment among children	101(50.5%)	68(34.0%)	17 (8.5%)	14 (7.0%)	200(100%)	3.28	.892
I use anecdotal records as an observational tool to assess children	92(46.0%)	67(33.5%)	26 (13.0%)	15 (7.5%)	200(100%)	3.18	.928
I use the checklist as an observational	119(59.5%)	47(23.5%)			200(100%)	3.40	.815

tool to assess children's learning			30 (15.0%)	04 (2.0%)			
I use a rating scale as an observational tool to assess children	87(43.5%)	67(33.5%)	43 (21.5%)	03 (1.5%)	200(100%)	3.19	.823
I use time samples as an observational tool to assess children's behaviours.	97(48.5%)	56(28.0)	38 (19.0%)	09 (4.5%)	200(100%)	3.21	.904
Mean of Means and Standard Deviation						3.29	.530

Field Data, 2021 NB: VO = Very Often; O = Often; S = Sometimes; N = Never; SD = Standard Deviation

Contrasting the individual means of the relevant items with the average mean or mean of means (3.29) and its related standard deviation (.530), it could be seen from Table 4 that the most commonly used or prevailed assessment practices among the teachers were building of portfolio on the learning outcomes of children (Mean = 3.54; SD = .656), use of narrative observation (Mean = 3.26; SD = .711), use of informal conversation with children (Mean = 3.30; SD = .775), use of performance-based assessment (Mean = 3.24; SD = .772), self-assessment (Mean = 3.45; SD = .707) and peer-assessment (Mean = 3.28; SD = .892) among children as means of assessing their learning outcomes respectively. It was again shown in the table that the teachers in the Tema West Metropolis very often use observational tools such as anecdotal records (Mean = 3.18; SD = .928), checklist (Mean = 3.40; SD = .815), rating scale (Mean = 3.19; SD = .823) and time sample (Mean = 3.21; SD = .904) as means of assessing children learning outcome, education and social progress respectively.

Despite the use of informal assessment practices in the ECE centres in the Tema West Metropolis, data collected and presented in Table 4 suggest that the use of some formal assessment practices was common among the teachers used for the study. This was evidenced as data contained in the table showed that the teachers use standardized tests (Mean = 3.19; SD = .903) and teacher-made tests/pencil & paper (Mean = 3.22; SD = .886) respectively to assess learning outcomes and progress of children. To further ascertain the assessment practices of ECE teachers in the metropolis, a population T-test analysis which is also referred to as one sample T-test of one sample mean was conducted on the assessment practices of teachers. The analysis of the test was presented in Table 5 and discussed as such.

Table 5: Results of Population T-Test Analysis of Teachers' Assessment Practices.

	Total	Sample Mean	Sample Std. Dev.	Reference Mean	t-value	Sig
Mean Score for Assessment Practices	200	3.29	0.53	2.5	74.315	0

Source: Statistics for Field Data, 2021; $p < 0.05$; $df = 199$; Mean Difference = 2.788

Population T-test analysis also known as one sample T-test of one sample mean was further conducted to determine ECE teachers' assessment practices within schools in the Tema West Metropolis. The test was conducted at an alpha level of .05 and the result is presented in Table 2. Using the population T-test, a sample mean was compared with a reference mean score or

population mean score of 2.5. The reference mean score was obtained by finding the average of the scores attached to the four responses to the items by the number of items. The reference mean score was also confirmed by using a mid-point on the test variables (Green et al, 2000). Thus, reference mean is; $\frac{1}{4} (4+3+2+1) = 2.5$ or $\frac{1}{2} (3+2) = 2.5$.

The result presented in Table 5 shows that the sample mean score for the total population for teachers' assessment practices (Mean = 3.29; SD = .530) was greater or more than the reference mean score of (2.5). Similarly, the calculated t-value or absolute value (74.315) was greater than the critical t-value of 1.96 at a 0.05 level of significance with 199 degrees of freedom. The result also shows a significant level of .000 which is less than the alpha level of 0.05. The result as presented in Table 5, therefore, by implication means that Early Childhood Education teachers in the Tema West Metropolis use the assessment practices assessed by this study.

Challenges Teachers Encounter in Assessing Children

Accurate assessment of children is disreputably difficult and hence needs clear guidelines regarding the nature, functions and the use of early childhood assessment practices that are appropriate for use in culturally and linguistically diverse situations for children at that level. It was vital to, therefore, investigate some of the challenges ECE teachers encounter in assessing children. Data collected regarding this research question was presented and analysed in Table 6.

Table 6: Analysis of Challenges ECE teachers faced in Assessing Children

Statement	Total	Mean	SD
Lack or inadequate indoor and outdoor resources for assessing children	200 (100%)	3.46	.625
Lack of understanding of children's assessment outcomes	200 (100%)	3.32	.584
Overcrowding or a large number of children in the classroom affects assessment processes	200 (100%)	3.55	.624
Excessive interference of parents in the assessment process of children during their early years	200 (100%)	3.52	.618
High demand or expectation of parents from teachers and children during their early years	200 (100%)	3.53	.649
Inadequate time for assessing children formatively	200 (100%)	3.40	.649
Effects of teachers' belief and perception on assessment	200 (100%)	3.31	.637
Mean of means and Standard Deviation		3.43	.406

Field Data, 2021.

NB: SD = Standard Deviation.

Data presented in Table 6 indicated that the teachers used for the study agreed that lack of understanding of children's assessment outcomes (Mean = 3.32; SD = .584) and effects of teachers' belief and perception on assessment (Mean = 3.31; SD = .637) respectively hinders effective assessment of children during their early years' education. These responses could imply that ECE teachers used for the study in the Tema West Metropolis do not have an adequate understanding of the use of children's assessment outcomes. Again, it could be seen from the table that lack or inadequate indoor and outdoor resources (Mean = 3.46; SD = .625) is a challenge teachers faced in assessing children. Similarly, overcrowding or a large number of children in the classroom (Mean = 3.55; SD = .624) is believed by the respondents to affect

assessment processes in schools in the Tema West Metropolis. It could also be observed from the table that excessive interference of parents in the assessment process of children during their early years (Mean = 3.52; SD = .618) and high demand or expectation of parents from teachers and children during their early years (Mean = 3.53; SD = .649) respectively are challenges that affect the assessment practices of children in the Tema West Municipality. Finally, it was identified that inadequate time for assessing children formatively (Mean = 3.40; SD = .649) was a challenge for ECE teachers in the Tema West Metropolis.

A population T-test analysis was further conducted on the challenges Early Childhood Education teachers encounter in their use of assessment practices. The analysis of the test was presented in Table 7 and discussed as such.

Table 7: Results of Population T-Test Analysis of Challenges ECE Teachers Face

	Total	Sample Mean	Sample Std. Dev.	Reference Mean	t-value	Sig
Mean Score for Challenges of Assessment	200	3.43	0.406	2.5	102.159	0

Source: Statistics for Field Data, 2021; $p < 0.05$; $df = 199$; Mean Difference = 2.933

As evidenced in Table 7, the sample mean score for the challenges ECE teachers encounter in the use of assessment practice (Mean = 3.43; SD = .406) is greater or more than the reference mean score of (2.5). Similarly, the calculated t-value or absolute value (102.159) is greater than the critical t-value of 1.96 at a 0.05 level of significance with 199 degrees of freedom. The result also shows a significant level of .000 which is less than the alpha level of 0.05. By implication, the result as presented in Table 7, means that Early Childhood Education teachers in the Tema West Metropolis encounter several challenges in the quest to use informal or alternate assessment practices in the Tema West Metropolis, Ghana. Some of the challenges indicated by the teachers used for the study were inadequate indoor and outdoor resources for assessing children, lack of understanding of children's assessment outcomes, overcrowding or large number of children, excessive interference of parents in the assessment process of children, lack of commitment on the part of teachers to assess children formatively, lack of national assessment standard, inadequate time for assessing children formatively among others.

Testing of Hypotheses

Two hypotheses were raised to guide this study. They were tested, reported and results interpreted.

Hypothesis One

- $H_0 1$: There is no statistically significant difference in the prevailing assessment practices of male and female teachers in the Tema West Metropolis.
- $H_1 1$: There is a statistically significant difference in the prevailing assessment practices of male and female teachers in the Tema West Metropolis.

The first hypothesis ($H_0 1$) sought to compare teachers' assessment practices based on their gender (Sex) in the Tema West Metropolis. An independent-sample t-test was conducted to compare the prevailing assessment practices of teachers for Males and Females. The result shows that there were no statistically significant differences ($df = 198$; $t = 1.397$; $p = .164$) in

scores for Males (Mean = 3.38; SD = .572) and Female (Mean = 3.26; SD = .515) teachers. The null hypothesis was, therefore, retained while the alternate hypothesis was rejected. This means that the prevailing assessment practices of teachers in the Tema West Metropolis are the same across male and female categories. In other words, there is no difference in the prevailing assessment practices of teachers.

Table 7: Independent Samples-T test Results for Hypothesis 1

Variable	Sex	N	Mean	SD	T-test for Equality of Means				
Assessment Practices of Teachers					t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.
					1.397	198	.164	.122	.087
	Male	49	3.38	.572					
	Female	151	3.26	.515					

Source: Statistics for Field Data, 2021, a. Grouping Variable: Sex, $p > 0.05$

Hypothesis Two:

- $H_0 2$: There is no statistically significant difference in teacher's assessment practices and their professional qualifications.
- $H_1 2$: There is a statistically significant difference in the assessment practices of teachers and their professional qualifications.

The final hypothesis ($H_0 2$) sought to determine whether or not there is a statistically significant difference in the assessment practices of teachers based on their professional qualifications in the Tema West Metropolis. One-way ANOVA analysis was conducted to determine whether or not there is a statistically significant difference in the prevailing assessment practices of teachers based on their professional qualifications.

Table 8: One-Way ANOVA Results for Hypothesis Two ($H_0 2$)

Variable	Professional Qualification	N	Mean	SD	F-value	df	p-level
Assessment Practices of Teachers					13.224	199	.000
	Teacher Certificate A	17	3.35	.436			
	Diploma in Early Childhood Education	46	3.44	.419			
	Diploma in Basic Education	56	3.08	.556			
	Bachelor of Education (Early Childhood)	63	3.50	.465			
	Bachelor in Basic Education	18	2.73	.399			
	Total	200	3.29	.530			

Source: Field Data, 2021, Grouping Variable: Professional Qualification, $p < 0.05$

The results show that there was a statistically significant difference across the various categories under teachers' professional qualification (f -value = 13.224; df = 199; p -level = .000) in scores for Teacher's Certificate 'A' (Mean = 3.35, SD = .436), Diploma in Early Childhood Education (Mean = 3.440, SD = .419), Diploma in Basic Education (Mean = 3.08, SD = .556), Bachelor of Education in Early Childhood (Mean = 3.50, SD = .465) and Bachelor in Basic Education (Mean = 2.73, SD = .399). Since the p -value was less than 0.05, the null hypothesis

was rejected while the alternate hypothesis was retained. This means that the use or choice of assessment practices of teachers in the Tema West Metropolis is not the same across the professional qualifications of the teachers. In other words, the assessment practices of teachers differ significantly across their professional qualifications. As established, the assessment practices of teachers differ significantly across their professional qualifications and given this, a post hoc test using the Tukey HSD test of multiple comparisons was conducted to explore exactly where the differences among the groups exist. A summary of the result is provided in Table 8.

It is shown in Table 9 that, there is significant difference in the professional qualification of Early Childhood Education teachers among Teacher Certificate "A" (Mean = 3.35, SD = .436) and Bachelor in Basic Education (Mean = 2.73, SD = .399); Diploma in Early Childhood Education (Mean = 3.44, SD = .419) and Diploma (Mean = 3.08, SD = .556) and Bachelor (Mean = 2.73, SD = .399) in Basic Education respectively; Diploma in Basic Education (Mean = 3.08, SD = .556) and Diploma in Early Childhood Education (Mean = 3.44, SD = .419); Bachelor of Education in Early Childhood (Mean = 3.50, SD = .465) and Bachelor in Basic Education (Mean = 2.73, SD = .399); Bachelor of Education in Early Childhood (Mean = 3.50, SD = .465) and Diploma in Basic Education (Mean = 3.08, SD = .556) and Bachelor in Basic Education (Mean = 2.73, SD = .399) respectively. Finally, there is a statistically significant difference in Bachelor of Basic Education (Mean = 2.73, SD = .399) and Teachers Certificate 'A' (Mean = 3.35, SD = .436); Diploma in Early Childhood Education (Mean = 3.44, SD = .419), Diploma in Basic Education (Mean = 3.08, SD = .556) and Bachelor of Education in Early Childhood (Mean = 3.50, SD = .465).

Table 9: Tukey HSD Test of Multiple Comparison

(I) Professional Qualification	(J) Professional Qualification	Mean	Std. Dev.	Mean Diff. (I-J)	Std. Error	Sig.
Teachers Certificate 'A'	Diploma in Early Childhood Education	3.44	.419	-.090	.135	.963
	Diploma in Basic Education	3.08	.556	.263	.132	.270
	Bachelor of Education (Early Childhood)	3.50	.465	-.153	.130	.763
	Bachelor in Basic Education	2.73	.399	.621*	.161	.001
Diploma in Early Childhood Education	Teachers Certificate 'A'	3.35	.436	.090	.135	.963
	Diploma in Basic Education	3.08	.556	.354*	.095	.002
	Bachelor of Education (Early Childhood)	3.50	.465	-.063	.092	.960
	Bachelor in Basic Education	2.73	.399	.712*	.132	.000
Diploma in Basic Education	Teachers Certificate 'A'	3.35	.436	-.263	.132	.270
	Diploma in Early Childhood Education	3.44	.419	-.354*	.095	.002
	Bachelor of Education (Early Childhood)	3.50	.465	-.417*	.087	.000
	Bachelor in Basic Education	2.73	.399	.358*	.129	.047
	Teachers Certificate 'A'	3.35	.436	.153	.130	.763

Bachelor of Education (Early Childhood)	Diploma in Early Childhood Education	3.44	.419	.063	.092	.960
	Diploma in Basic Education	3.08	.556	.417*	.087	.000
	Bachelor in Basic Education	2.73	.399	.774*	.127	.000
Bachelor in Basic Education	Teachers Certificate 'A'	3.35	.436	-.621*	.161	.001
	Diploma in Early Childhood Education	3.44	.419	-.712*	.132	.000
	Diploma in Basic Education	3.08	.556	-.358*	.129	.047
	Bachelor of Education (Early Childhood)	3.50	.465	-.774*	.127	.000

Source: Field Data, 2021*. The mean difference is significant at the 0.05 level.

DISCUSSION

Assessment Practices of ECE Teachers

Data obtained about the assessment practices of teachers revealed that Early Childhood Education teachers in the Tema West Metropolis use several documented assessment practices (both alternative and traditional) in assessing children. Among the prevailing alternative assessment practices used by the teachers in the metropolis were the building of portfolios, and the use of observations in the form of anecdotal records, checklists, rating scales, and time samples among others. Also, interviews or informal conversations, self and peer assessments and performance-based assessments are been deployed and used in the metropolis. It must be noted that these alternative assessment practices are highly recommended to be used in assessing children during their early years of education. For example, William and Thompson (2008) indicated that contrary to the traditional forms, learners and their peers play a considerable role in the assessment process in formative or alternative assessment.

Chappuis and Stiggins (2003), reinforce the above point by indicating that, 'classroom assessment that involves students in the process and focuses on increasing learning can motivate rather than merely measure students' (p. 40). In a similar vein, Dochy, & Moerkerke (1997), Black and Wiliam (2006), and Birenbaum and Feldman (1998) observed that alternative assessment practices which involve students in the process of assessment do not only reduce the burden of work for the instructor but also ensure students that they are viewed as active members who are responsible for their progress. Harlen (2007), also stated that formative or alternate assessment functions as a cycle of events which identifies a learner's position and his or her targeted goal. To Harlen therefore, students are active members of the class and the assessment process as opposed to the old version of assessment (traditional) in which students were simply receivers of information.

It is worth stating however that, the use of traditional assessment practices such as pencil and paper tests and standardised tests are still common among ECE teachers in the Tema West Metropolis. This contradicts some earlier studies which advocate that, pencil and paper tests are inappropriate and, therefore, should not be used during early years education. For instance, a study conducted by Chappuis and Stiggins (2003), indicated that students are perceived to be passive actors in the traditional form of assessment rather than active learners in the new form (formative assessment) who acquire the ownership of their learning. They further indicated that, due to this, traditional assessment practices must be avoided during the early years of

education. Similarly, Segers (2001), stated that traditional assessment practices are focused on improving the cognitive side of instruction, i.e., the skills and knowledge that students are expected to develop within a short period and not, the holistic development of children.

Again, the data obtained revealed that the assessment practices of teachers in the Tema West Metropolis are the same across male and female categories. In other words, there is no statistically significant difference in the assessment practices of teachers based on their sex. Accordingly, the null hypothesis, "There is no statistically significant difference in the assessment practices of male and female teachers in the Tema West Metropolis" was retained while the alternate hypothesis was rejected. However, the data exposed that there is a statistically significant difference across the various categories under teachers' professional qualifications for the assessment practices of teachers. This implies that the use or choice of assessment practices is not the same across the professional qualifications of the teachers. In other words, the assessment practices of teachers differ significantly across the teachers' professional qualifications. The alternate hypothesis "There is a statistically significant difference in the assessment practices of teachers based on their professional qualifications" was retained while the null hypothesis was rejected.

Challenges of ECE Teachers in the Use of Assessment Practices

Analysis of data gathered on the challenges of Early Childhood Education teachers in their quest to use assessment practices revealed that there are numerous challenges ECE teachers encounter in assessing children during their early years. Among these challenges were inadequate indoor and outdoor resources for assessing children, lack of understanding of children's assessment outcomes, overcrowding or large number of children, excessive interference of parents in the assessment process of children, lack of commitment on the part of teachers to assess children formatively, lack of national assessment standard, inadequate time for assessing children formatively among others.

The responses from the teachers about the challenges of assessing children were in line with several other studies (Anhwere, 2009; National Education Goal Panel (NEGP), 1998; Anane, 2007; Abdulai, 2014; Twum, 2016). For instance, the National Education Goal Panel (NEGP), 1998 stated that there are no established standards for assessing students especially children during their early years education. The lack of these standards have led teachers and early childhood practitioners to develop standards on their own since it appears the central government is not ready for such an undertaking. A study conducted by Abdulai (2014), also revealed that inadequacy of teaching and learning materials was identified as a major challenge associated with early childhood educational practices of which assessment is part.

CONCLUSIONS

Based on the inferences made from the analysis and discussion of data gathered, the study concluded that Early Childhood Education teachers in the Tema West Metropolis practice the use of some formative assessment practices among which were, building of portfolio, the use of observation, informal conversation, self and peer assessment as well as performance-based assessment. Notwithstanding this, the teachers still engage in the use of formal or traditional assessment practices such as pencil and paper tests which is not healthy for the holistic development of children during their early years of education. Furthermore, while the assessment practices of teachers in the Tema West Metropolis are significantly the same across

male and female categories, the assessment practices of teachers differ significantly across the teachers' professional qualifications. Also, the study concluded that major challenges that confront ECE teachers in assessing children during their early years are inadequate indoor and outdoor resources for assessing children, lack of understanding of children's assessment outcomes, overcrowding or large number of children, excessive interference of parents in the assessment process of children, lack of commitment on the part of teachers to assess children formatively among others.

RECOMMENDATIONS

Although Early Childhood Education in the Tema West Metropolis used varied alternate assessment practices, the use of traditional pen and paper tests is still common among them. It is recommended therefore that; the teachers should be sensitized on the negative effects of pen and paper tests on children to discourage them from using these traditional forms of assessment practices which do not help the holistic development of children. Also, even though the teachers use these varied assessment practices, it is worth recommending that there should be more workshops for the teachers as these workshops will not only motivate them but also abreast their knowledge and skills in the modern use of these assessment practices. Furthermore, it is recommended that the coordinator of Early Childhood Education and the Director of Education in the Tema West Metropolis should identify other sources of funding like appealing to NGOs to help provide teaching and learning materials for teaching and assessing children in the metropolis. This will maximize effective teaching and assessment of children within the metropolis which will go a long way to ensure the holistic development of the children.

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