

# Pre-primary Education in Tanzania: Teachers' Knowledge and Instructional Practices in Rural Areas

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**Abstract:** Recently, the Ministry of Education Science and Technology through Tanzania Institute of Education introduced a new Pre-Primary Education Curriculum and Syllabus. Consequently, pre-primary teachers were orientated towards implementing the newly-established curriculum. However, little is known on the pre-primary teachers' knowledge and practices vis-à-vis effectiveness in teaching. This study, therefore, sought to narrow this gap of knowledge by assessing the pre-primary teachers' knowledge and practices regarding the implementation of the curriculum. A descriptive survey design informed this study. A total of 19 rural pre-primary teachers working in six wards in Mwanza and Morogoro regions were recruited to participate in the study. Data were collected using a questionnaire with Likert scales and a classroom observation schedule. The findings reveal that overall, pre-primary teachers had little knowledge ( $M=2.12, SD=.58$ ) regarding Early Childhood Education. On the other hand, however, these teachers were knowledgeable on the importance of play to children ( $M=2.36, SD=.76$ ) and understood the objectives of pre-primary education ( $M=2.47, SD=.79$ ). Teachers' instructional practices, however, were unsatisfactory ( $M=2.07, SD=.62$ ). Statistically, however, their knowledge scores did not significantly correlate with their practice ( $r = .344, p>.05$ ). On the whole, the pre-primary teachers' instructional practices were unsatisfactory. This suggests a need for continued provision of in-service educational programmes to the teachers.

**Keywords:** Knowledge, Practice, Early Childhood Education, Pre-primary teachers

## Introduction

Research has demonstrated that early years—from conception to eight years of age—are vital for children's growth and development (intellectually, emotionally, socially and physically). As such, quality early stimulation and education experiences at this particular stage of life lays a strong foundation and creates lasting impacts not only immediately for the child and its parents, but also over time in terms of the child's ability to contribute to the community; moreover, opportunities forgone at this stage can rarely be made up at later stages of the child's growth (Hyde, 2006; Shonkoff, 2009; UNICEF, 2013). Thus, providing supportive, caring, responsive

relationships as early in life as possible can help build a strong foundation for a child's future school and life long success.

In fact, a quality pre-primary learning programme has the potential of supporting children to develop the skills that the brain is wired to learn before primary education. Throughout early childhood, there are "windows" of learning. Indeed, what happens in early learning schools should reflect an understanding of developmental milestones, what children can do, and how they learn (Llewellyn, 2017). Since Early Childhood is a crucial stage in human development since it forms the foundation of subsequent development, teachers' knowledge and practices are fundamental when assessing the quality of early education. Tanzania recognises the importance of pre-primary education. This recognition is reflected in various policy provisions such as the Education and Training Policy (ETP), 1995 and the subsequent ETP, 2014.

### **Pre-Primary Education in Tanzania**

The education system in Tanzania comprises two years of pre-primary education, seven years of primary education, four years of ordinary secondary education, two years of advanced secondary education, and three or more years of tertiary/higher education. Until 2015, basic education consisted of seven years of compulsory primary education for children aged 7-13 years. A new policy in education and training, which was promulgated in 2014, has made some structural adjustment to integrate secondary education in compulsory and fee-free basic (public) education from 2016 onwards. In addition, the policy adjusts primary school education from 7 to 6 years. It also makes a pre-primary education a one-year programme and compulsory for five-year-old children. In fact, 3-4-year-olds can be enrolled if they are 'ready' to embark on school. Thus, the structure of the education system can now be described as: 1+-6-4-2-3+. This translates into 1 (or more) year of pre-primary school, six years of primary education, four years of ordinary secondary education, two years of advanced secondary education and three (or more) years of tertiary and/or higher education. In other words, pre-primary and secondary education have become an integral part of compulsory and fee-free basic education, at least in the country's public education system. The education structure, however, is likely to change again since the current ETP is under review.

Pre-primary education in Tanzania was formalised and systematised in 1995 following the introduction of the ETP 1995. By then, it was not compulsory until the introduction of the 2014 Education and Training Policy that superseded the former. The purpose of pre-primary education is to prepare children for primary education. Each primary school in Tanzania is expected to have a pre-primary class as part of the school set-up.

Despite this emphasis, participation at this level of education has yet to meet expectations and varies. In 2014, 2015, and 2016, for example, the gross enrolment ratio (GER) for pre-primary education was 37.3, 36.9, and 103.1, respectively. In 2017, the GER was 95.8% (United Republic of Tanzania [URT], 2017) whereas in 2018 it was at 86.1% (President's Office Regional and Local Government - PO-RALG, 2018). The sharp increase in enrolment in 2016 is attributable largely to the implementation of fee-free basic education. The decrease in enrolment, on the other hand, could be explained by 'unmet' expectations associated with the implementation of fee-free education policy. Available information suggest that parents still incur indirect costs for their children's schooling to cover school uniforms, exercise-books and writing materials even in light of the much-touted fee-free education in public schools. To some parents, such contributions no matter how negligible might constitute a burden (HakiElimu, 2017), and hence a throwback.

In fact, it took 10 years after the formalisation of Pre-Primary Education (PPE) in 1995 to produce the 2005 curriculum for PPE. The 2005 curriculum was subsequently reviewed in 2016. As mentioned elsewhere, the one-year cycle PPE curriculum is designed to prepare a child for primary education.

It advocates for a holistic development of child, child-centred approach, individualised instructions, and play-based pedagogy. Moreover, the curriculum advocates for continuous assessment of pupils' progress. It also recommends for the assessment based on the teachers' observations and keeping of each child's progress record on daily basis. To support effective implementation of the curriculum, the Tanzania Institute of Education (TIE) produced curriculum support materials including six textbooks and teacher's guide. Among other things, the teachers' guide provides some guidance on engaging children in playful learning activities, preparation and use of lessons plans, classroom management and management of a day, and daily routine. The orientation of pre-primary teachers with the draft of the newly-established curriculum and curricular materials eight days in 2016. Although teachers were generally provided with a copy of the draft curriculum for implementation, the information available indicate that a good number of the teachers did not have a copy of the curriculum until 2019. The delay was partly caused by the curriculum being finalised for mass production before distribution to the teachers. In truth, teachers have largely relied on their experiences (Shukia, 2014) and, perhaps, the knowledge and skills they had gained during this orientation.

Generally, there is an agreement that teacher's personal factors such as knowledge, qualification, specialised training in early childhood education (ECE) and participation in professional development programmes constitute a common structural variable in the regulation and an important

contributory factor to quality service delivery (Sims, Guilfoyle, & Parry, 2006). After all, well-trained teachers are critical components in engendering a high-quality early childhood education (UNESCO, 2005). In addition, training equips teachers with requisite knowledge and skills to participate in warm, sensitive and responsive interactions with young children, and these interactions and relationships are important determinants of children's learning outcomes (Wylie & Thompson, 2003).

Also, teachers' pedagogical knowledge has the potential of bettering instructional decisions teachers make in the classroom (Shulman, 1986). In fact, teachers' high level of knowledge is instrumental to devising challenging but accommodative learning environments, hence improving learning outcomes. In fact, knowledgeable teachers can anticipate the learners' difficulties and adaptively respond to meet their needs (Keller, Neumann, & Fischer, 2017). However, this paper contends that the relationship between teachers' knowledge and practices is not always linear. There might be classroom conditions, which might influence this relationship, depending on a given locale or operational context.

As Tanzania recognises the importance of a well-trained teacher at the pre-primary education level, the expectation is that a qualified pre-primary teacher must have received at least a certificate of teacher training education with a minimum classification of Grade III 'A' on the government teacher pay scale. Moreover, pre-primary teachers should hold a certificate of teacher education in early childhood education. In statistical terms, there were around 9,045 teaching staff in government pre-primary streams in 2017, a nine percent increase from 8,300 of teaching staff registered in 2016. Of the teaching staff for pre-primary streams available in 2017, about 87 percent were 'qualified'; hence a pupils-qualified teacher ratio (PQTR) of 183:1 in government streams against the standard PQTR of 25:1 [President's Office, Regional Administration and Local Government (PO-RALG), 2017].

The 2017 PQTR is even worse when compared to 169: 1 in 2016. Of the 'qualified' pre-primary teachers, however, the majority (76.7%) had never attended teacher education in early childhood development and education, specialised training which is essential for teaching at that level, as expected. Thus, they are more qualified as primary school teachers but 'under-qualified' as pre-primary teachers. Simply put, they were primary school teachers tasked with teaching pre-primary school learners.

Studies done in Tanzania by Mtahabwa (2007), the MoEVT (2010), Shavega, Brugman, and Van Tuijl (2014) and Libent (2015) indicate that most of the pre-primary classes suffer from poor quality teaching and learning due to lack of pre-primary curriculum and curricular materials, 'under-qualified'

pre-primary teachers, high teacher-pupil ratio. We know little, however, about teachers' knowledge on ECE, pre-primary education curriculum and pedagogy in relation to their classroom instructional practices. It is against this backdrop that this study tries to answer three major research questions: (1) What are the pre-primary teachers' knowledge level regarding ECE? (2) What are the pre-primary teachers' instructional practices level regarding ECE? (3) Is there significant relationship between the pre-primary teachers' knowledge and their instructional practices regarding ECE?

The socio-cultural theory and its allied activity theory serve as analytical tool that facilitate the understanding of the teachers' knowledge and instructional practices in the context of this study and their relationships. These theories provide a framework for examining the factors that influence the existing pre-primary teachers' knowledge and practices not only on the basis of immediate and day-to-day classroom practices but also in relation to their background and prior experiences, as well as prevailing social context. The framework, further, works on the assumption that relationships between knowledge and practice are not always smooth. After all, in the course of teaching and learning contradictions and tensions may exist.

### **Methodology**

A descriptive survey design informed this study. A sample consisted of 19 pre-primary teachers' purposively selected from 19 rural pre-primary classes in six wards of Mwanza and Morogoro regions. Data were collected using self-administered questionnaire and an observational checklist, designed by the researchers. The questionnaire had a list of items that assessed pre-primary teachers' knowledge on various pre-primary education issues. The questionnaire consisted of two sections. The first section generated information related to demographic and job characteristics of the pre-primary teachers studied. Teachers' information collected included gender, educational levels, years of experience in the teaching profession, pre- and in-service training courses specifically dealing with early childhood education. The second section, on the other hand, comprised 14 items that measured pre-primary teachers' knowledge.

Specifically, this section explored the teachers' knowledge on daily routine; play in children and learning corners; value of storybook reading and storytelling; teacher-child interaction; Pre-primary Education (PPE) objectives and competences; PPE teaching strategies; assessment strategies in PPE; parents' involvement and child protection measures. Responses were rated using a 3-point Likert-type scale ranging from 'accurate knowledge' to 'inaccurate knowledge' to determine teachers' knowledge.

The observational checklist facilitated the assessment of the teachers' instructional practices. Classroom observations were followed by post-observation interviews. Post-observation interviews served two main purposes: to clarify some of the instructional practices observed that the researchers determined to constitute a gap in understanding based on classroom observations alone, and to explore perceptions and reasons underlying teachers' actions and their associated meaning from the teachers' perspective.

Observations occurred from the teachers' and children's time of arrival (7.30am) to departure time (11.30am). Pre-primary teachers' practices were assessed by looking at nine (9) dimensions: Planning, organisation of the day's teaching and learning activities, teacher-led session, children-led session, classroom management, availability and use of teaching and learning (T/L) materials, inclusivity, parents' engagement and assessment.

### **Scoring of instruments**

Scores on the 3-point Likert-type response scale were added and averaged to provide an average score of the teachers' knowledge levels for each item and dimension. *Inaccurate knowledge* was defined as 'different answer' or 'doesn't know'; *Partial knowledge* as a teacher seeming to have knowledge, but it is unsatisfactory for fostering quality practice; and *accurate knowledge* as excellent knowledge for practice. The three levels of knowledge scores were operationally defined as  $<1.80$  = Inaccurate Knowledge;  $1.80-2.29$  = partial Knowledge,  $>2.30$  = Accurate Knowledge. In other words, the greater the mean value, the more accurate the knowledge of the teachers.

As regards instructional practices, the scores were on a 5-point Likert-type response scale. The scores were added and averaged to provide an average score of the practices for each teacher. Scores were grouped into five groups. The five levels of teachers' practices ratings were operationally defined as  $\leq 1.80$  = poor/not observed,  $1.80-2.60$  = Unsatisfactory,  $2.61-3.40$  = Fair,  $3.41-4.20$  = Good,  $>4.21$  = Excellent. That is, if teachers scored a mean of between 2.61 and 3.40, it meant they had fair practice.

### **Pilot test**

Prior to the actual fieldwork, a pilot study was conducted in one public primary school with a pre-primary class attached to it. The objective of the pilot test was to validate the data collection tools and procedures subsequently applied in the field. The pilot study provided a framework for revising and improving the research tools for administration in the final form. Reliability of the tools was checked by testing for their internal consistency using the Cronbach Alpha reliability test. The reliability of the knowledge questionnaire was 0.95 and that of the practice observational

checklist was 0.78. These reliability indexes were sufficient enough for the research instruments to be administered in the field for this study.

### Ethical Considerations

The approval to undertake the study was obtained from respective District Executive Directors of Mvomero and Kilombero in Morogoro region, and Misungwi and Ukerewe in Mwanza region. The researchers also obtained verbal consent for participation from every teacher after explaining to them the aim of the study in addition to assuring them that the data so obtained would be treated with utmost confidentiality and for the intended research purpose. In addition, participation was voluntary and, thus, they could withdraw at anytime from the study if they so wished. Furthermore, the researchers used code to ensure the respondents' anonymity and to avoid identifying the participating schools.

### Data Analysis

Data were analysed descriptively (using frequencies, percentages, means and standard deviation) and inferentially (Pearson Product Correlation Coefficient) with the help of the Statistical Package for the Social Sciences (SPSS) version 20. Pearson Correlation was used to test relationships, statistical significance was considered at the 0.05 level.

Table 1 indicates that more than half of the pre-primary teachers (57.9%) were females, holders of secondary education and Grade 'A' teacher education certificates. Their experience of teaching PPE ranged from 1 month to 8 years. About 89.5 percent of the pre-primary teachers had never attended any pre-service training course in ECE. About 73.7 percent reported to have attended a nine-day national orientation workshop on the new pre-primary curriculum conducted by the TIE.

### Results

Table 1 shows the demographic and job characteristics of the respondents:

**Table 1: Demographic and Job Characteristics of the Respondents (n=19)**

Demographic and Job Characteristics	No	%
<b>Gender</b>		
Females	11	57.9
Males	08	42.1
<b>Educational levels</b>		
Secondary Education & Grade A certificate	19	100
<b>Experience years in teaching</b>		
<01	07	36.8
01 to <05	09	47.4
05+	03	15.8
<b>Pre-service training courses in early childhood education</b>		
Yes	02	10.5
No	17	89.5

In-service training courses in early childhood education		
Yes	14	73.7
No	05	26.3

### PPE Teachers' Knowledge on Early Childhood Education

The study also assessed the pre-primary teachers' knowledge on the pre-primary curriculum components. Specifically, it assessed the following attributes: (1) a daily routine; (2) importance of play in children and learning areas "Corner play"; (3) PPE objectives and competences; (4) PPE teaching strategies; (5) Assessment in PPE; (6) parents involvement in Pre-primary Education; and (7) child protection measures. Pre-primary teachers' knowledge is presented in Table 2:

**Table 2: Descriptive Data for PPE Teachers' Knowledge**

S/N	Knowledge Items	Inaccurate knowledge	Partial known ge	Accurate knowledge	Mean	SD
1	Pre-primary daily routine.	4 (21)	9 (47.4)	6(31.6)	2.10	.73
2	Things to be included in a daily routine and reasons.	5(26.3)	10(52.6)	4(21)	1.94	.70
3	Benefits of a daily routine to children.	6(31.6)	7(36.8)	6(31.6)	2.00	.81
4	Importance of play to children.	3(15.8)	6(31.6)	10(52.6)	2.36	.76
5	Learning and play areas 'learning corners' and its contents.	6(31.6)	8(42.1)	5(26.3)	1.94	.77
6	Suitable playthings for young children in the classroom.	5(26.3)	9(47.4)	5(26.3)	2.00	.74
7	The value of storybook reading and storytelling to young children.	5(26.3)	7(36.8)	7(36.8)	2.10	.80
8	How to interact with young children.	3(15.8)	8(42.1)	7(36.8)	2.22	.73
9	Pre-primary education objectives.	3(15.8)	3(15.8)	13(68.4)	2.47	.79
10	Important PPE competences.	2(10.5)	10(52.6)	7(36.8)	2.26	.65
11	Pre-primary teaching strategies.	3(15.8)	10(52.6)	6(31.6)	2.11	.69
12	Ways of assessing PPE children.	3(15.8)	12(63.1)	4 (21)	2.12	.61
13	Ways in which parents can support and improve the PPE classroom quality.	4 (21)	12(63.1)	3(15.8)	1.94	.63
14	Child protection measures that PPE teacher need to be aware of and their role.	5(26.3)	8(42.1)	6(31.6)	2.05	.80
<b>Overall Pre-primary Teachers' knowledge</b>					<b>2.12</b>	<b>.58</b>

\* \*3= Accurate Knowledge, 2=Partial Knowledge, 1= Inaccurate Knowledge

\*Numbers in brackets show percentage of responses

As Table 2 illustrates, the overall mean score for the Pre-primary teachers' knowledge on ECE practices was 2.12 ( $SD = .58$ ), meaning that the teachers' had little knowledge on ECE practices. Specifically, the findings indicate that 47.4% and 52.6% of PPE teachers reported to have partial knowledge on a daily routine ( $M=2.10$ ,  $SD=.73$ ) and its contents ( $M=1.94$ ,  $SD=.70$ ). Besides, when asked about the benefits of a daily routine to children, the teachers reported possessing varying levels of such knowledge. Moreover, most of the PPE teachers (52.6%) possessed accurate knowledge on the benefits of play for young children ( $M=2.36$ ,  $SD=.76$ ).

PPE teachers were also to define a play and learning areas ('learning corners') and describe the contents of play and learning areas. Only 26 percent of the participating PPE teachers managed to define and describe the contents of learning corners ( $M=1.94$ ,  $SD=.77$ ). Nevertheless, when asked about suitable playthings for young children in the classroom, 47 percent of the PPE teachers reported to have partial knowledge ( $M=2.00$ ,  $SD=.74$ ). It is a truism that storybook reading and storytelling have multiple benefits for young children. However, when asked about the value of storybook reading and storytelling for young children, only 37percent of the PPE teachers indicated to have accurate knowledge ( $M=2.10$ ,  $SD=.80$ ). The majority (88%) of the PPE teachers reported to possess accurate knowledge on understanding the objectives of PPE ( $M= 2.47$ ,  $SD= .79$ ). Another 63 percent of the PPE teachers reported possessing only partial knowledge on proper ways of assessing young children ( $M=2.12$ ,  $SD=.61$ ). Additionally, only15.8percentof the PPE teachers revealed to have accurate knowledge on how to involve parents in improving classroom quality ( $M=1.94$ ,  $SD=.63$ ). With regard to child protection measures, PPE teachers were found to have varying levels of knowledge. Table 3 presents the instructional practices observed among the teachers during the study.

**Table 3: Descriptive Data for PPE Teachers' Practices**

No.	Dimensions and Items	Mean	SD
<b>1. Planning: Teacher plans sessions based on agreed upon curriculum/guidelines</b>		<b>2.90</b>	<b>1.38</b>
	Does the teacher have a curriculum and teacher's guide by	3.24	1.67
1	TIE		
2	Teacher has a lesson plan consistent with the curriculum	2.47	1.41
<b>2. Organization of the Day</b>		<b>2.31</b>	<b>1.14</b>
3	How was Circle Time conducted	2.36	1.30
4	How was the Bye Bye time conducted	2.11	1.02
<b>3 (a). Lesson Preparation</b>		<b>2.14</b>	<b>.99</b>
5	Lesson prepared according to the lesson plan format	2.13	1.50
6	Teaching aids prepared in sufficient numbers	1.77	.73
7	Teaching materials are relevant to the lesson	1.88	1.07
<b>3 (b). Lesson implementation</b>		<b>2.40</b>	<b>.87</b>
8	Examples from the local context to illustrate the lesson	2.47	1.28
9	All the children are actively engaged in the lesson	2.63	1.06
10	The teacher's instructions are clear and easy to follow	2.89	1.14
11	Teacher responsive when children ask questions	2.21	1.08
<b>4 (a). Learning materials</b>		<b>1.73</b>	<b>1.07</b>
12	Learning materials available and accessible	1.57	.69
13	Learning materials enough and safe to use	1.49	.79
14	The learning areas are well-organised.	1.31	.58
<b>4 (b). Children led activities</b>		<b>1.83</b>	<b>.74</b>
15	All learning areas have children at play	1.27	.46
16	Atmosphere in the classroom is relaxed	1.84	.89
17	Children interacting positively	2.26	1.04

<b>4 (c). Teachers' activities during Play session</b>	<b>2.11</b>	<b>.87</b>
18 Teacher interacting with individual children	2.29	1.10
19 Teacher paying attention to the children who are not active	2.11	1.07
20 Teacher encouraging children's interaction	1.94	1.16
<b>5. Classroom management</b>	<b>2.48</b>	<b>.96</b>
21 Classroom rules and teacher's expectations	1.88	1.02
22 Teacher use positive discipline, calm, encouraging and positive language	2.56	1.09
23 Classroom arrangement appropriate	2.22	1.11
24 Furniture developmentally appropriate	1.43	.51
<b>6. Stimulating environment and learning areas</b>	<b>1.22</b>	<b>.36</b>
25 Are learning areas available? Are learning areas well-organised?	1.22	.48
26 Are learning areas being used?	1.23	.43
<b>7. Inclusivity</b>	<b>2.31</b>	<b>1.01</b>
27 Teacher involves both genders equally	2.66	1.37
28 Teacher engages children with special needs	1.35	.86
29 Teacher shows appreciation to all the children	3.05	1.29
<b>8. Parent Engagement</b>	<b>1.43</b>	<b>.89</b>
30 Teacher encourages active parent engagement	1.43	.89
<b>9. Assessment</b>	<b>1.44</b>	<b>.56</b>
31 Does the teacher assess each child?	1.88	.90
32 Does the teacher keep records of each child?	1.33	.68
33 Teacher communicate the assessment results	1.21	.63
<b>Overall PPE Teachers Practice</b>	<b>2.07</b>	<b>.62</b>

\*\*5= Excellent, 4=Good, 3 =Fair, 2=Unsatisfactory, 1= Poor/not observed

Table 3 shows the mean values for the teachers' practice on the nine dimensions and various specific items. The means for all the dimensions and items ranged from 1.21 to 3.24. The overall mean score for PPE teachers' practices was 2.07 ( $SD = .62$ ). This implies that the practices of the PPE teachers, who were assessed during the study, were not satisfactory. Specifically, the findings indicate that the mean for planning was 2.90 ( $SD=1.38$ ), whereby 70 percent and 62.6 percent of the PPE teachers possessed pre-primary curriculum/syllabus and teachers' guide, respectively. However, only 23.6 percent of the teachers planned their sessions based on the agreed upon curriculum/guidelines. Furthermore, despite the teachers having lesson plans, evidence on whether they followed their plans for every lesson with fidelity was largely lacking.

As Table 3 indicates, the organisation of the day was unsatisfactory in many of the schools ( $M=2.31$ ,  $SD=1.14$ ) visited. For instance, 36.8 percent of the schools' Circle time was not conducted whereas at 15.8 percent of the schools, Circle time took place but there was poor engagement of the children. Also, the sessions were too brief and tended to be dominated by the teachers. Bye Bye time was neither observed in some of the PPE classes whereas in other PPE classes' Bye Bye time took place but the sessions were

rather too short and lacked a conclusion of the day's activities. Teachers' lesson preparations and implementations were found to be unsatisfactory ( $M=2.14$ ,  $SD=.99$ ) and ( $M=2.40$ ,  $SD=.87$ ), respectively. The study found that 60 percent of the teachers did not even prepare lesson plans. Another 39 percent of the PPE teachers did not prepare teaching aids whereas 44.4 percent of the teachers prepared very few teaching aids, which allowed only a selected child to participate with the majority of the children failing to do so.

Furthermore, learning materials were not available in many of the classes visited ( $M=1.73$ ,  $SD=1.07$ ). Specifically, 36.8 percent of the classes had few learning materials, with many children seated and idle while waiting for their turn to use those materials. Additionally, many classes had no learning areas which, in turn, affected the conducting of child-led sessions ( $M=1.83$ ,  $SD=1.07$ ). With regard to the teachers' activities during play session, teachers scores were unsatisfactory for practice ( $M=2.11$ ,  $SD=.87$ ). In fact, the majority of teachers did not encourage children-to-children interactivity ( $M=1.94$ ,  $SD=1.16$ ). It was further noted that the majority of the classes had poor stimulating environment and learning areas ( $M=1.23$ ,  $SD=.36$ ). Teaching-learning materials were largely lacking in almost all the classrooms visited. The materials available that were common in a few schools were the alphabet and number charts displayed on classroom walls, letter and number cards, and a few pictures of some objects such as the bloom, bucket, knife, and brush but they were largely unlabelled.

Classroom management was also found to be unsatisfactory ( $M=2.48$ ,  $SD=.96$ ). For instance, it was observed that the majority of the classes had no rules in place ( $M=1.88$ ,  $SD=1.02$ ). Some teachers were observed using a mixture of appropriate and inappropriate instructions which children were only able to follow partially ( $M=2.72$ ,  $SD=1.07$ ). Additionally, many of the classes were observed to have no developmentally appropriate furniture for young children ( $M=1.43$ ,  $SD=.51$ ). In fact, almost all the classes had similar physical arrangement, with desks arranged in rows, pupils seating facing the teacher and the desks were not of child-like size to meet their physiological needs. The teacher also stood most of the time before the chalkboard in front of the class.

With regard to gender sensitivity, the study established that, the majority of the teachers (55.6%) were gender-sensitive in classrooms ( $M=2.66$ ,  $SD=1.37$ ), that is, their classroom set-up and management were not favouring one gender (e.g. sitting arrangements, use of teaching and learning materials). However, a child with mental impairment in one of the classes was minimally 'engaged' in the teaching-learning activities. When it comes to engaging parents, 75 percent of the teachers did not have any evidence of

parent-teacher partnership ( $M=1.43, SD=.89$ ). Moreover, they reported there was no meaningful engagement of parents in classroom work or meetings.

As Table 3 illustrates, pre-primary teachers failed to produce children’s assessment ( $M=1.88, SD=.90$ ) and records ( $M=1.33, SD=.68$ ) respectively. Additionally, 84 percent of the teachers reported not to have communicated assessment results to the parents ( $M=1.21, SD.62$ ). Implicitly, the teachers did not assess the children as stipulated in the pre-primary curriculum.

**Relationship between Knowledge and Practice**

A bivariate correlation analysis using the Pearson product-moment correlation coefficient was carried out to determine the relationship between pre-primary teachers’ knowledge of ECE and their teaching practice at the ECE level. Results are as presented in Table 4:

**Table 4: Relationship between Knowledge and Practice in ECE among Pre-primary Teachers**

		<b>Overall Knowledge</b>	<b>Overall Practice</b>
<b>Overall Knowledge</b>	Pearson Correlation	1	.344
	Sig. (2-tailed)		.163
	N	19	18
<b>Overall Practice</b>	Pearson Correlation	.344	1
	Sig. (2-tailed)	.163	
	N	18	19

Data reveal that there was no significant relationship between pre-primary teachers’ knowledge and practice of ECE ( $r = .344, p>.05$ ). This implies that the respective teachers’ knowledge on ECE did not necessarily translate into the required classroom instructional practices.

**Discussion**

Pre-primary education serves as a foundation for school and life success. As such, teachers are supposed to be knowledgeable enough in various PPE subject content and pedagogical skills in performing their responsibilities as teachers. To ensure the provision of quality early childhood education, it is important to focus on the teachers’ knowledge and practice. This study was carried out with the goal of filling a gap of generating vital information on pre-primary teachers’ knowledge and instructional practice pertaining to Early Childhood Education in selected Tanzania schools under review. The study was an attempt to answer questions on the extent to which pre-primary teachers are knowledgeable of ECE issues, to what extent is their

related practice adequate, and whether their knowledge and practice correlate.

The findings of the present study revealed that the majority of the PPE teachers had little knowledge on Early Childhood Education. It was apparent from the findings that these PPE teachers' knowledge of ECE was limited to specific areas. For example, pre-primary teachers had little knowledge on things for inclusion in a daily routine, understanding of the learning corners and how to involve parents in improving classroom quality. This limitation could have resulted from a deficiency in the training programmes on ECE. Also, the problem could be attributable to the absence of intensive pre-service and in-service training courses specified in early childhood education. This finding is inline with that of the UNICEF (2017) study, which reported that 72 percent of pre-primary teachers did not have a certificate in early childhood/pre-primary education. Similarly, this study found that 33.8 percent had had no in-service training in the past 12 months. Of those who did have one, 75 percent had participated in the national pre-primary curriculum orientation, which was usually a one-off event.

Regarding the pre-primary teachers' practice of ECE, the study's results generally revealed that their practice was largely unsatisfactory ( $M=2.07$ ,  $SD=.62$ ). Indeed, 7 out of 9 scores for ECE practices were unsatisfactory. These included organisation of the day ( $M=2.31$ ,  $SD=1.14$ ), Teacher led-lessons [i.e. lesson preparations ( $M=2.14$ ,  $SD=.99$ ) and implementation ( $M=2.40$ ,  $SD=.87$ )], children-led sessions [i.e. availability of learning materials ( $M=1.73$ ,  $SD=1.07$ ), children-led activities ( $M=1.83$ ,  $SD=1.07$ )], teachers' activities during play session ( $M=2.11$ ,  $SD=.87$ ). Other scores were for classroom management ( $M=2.48$ ,  $SD=.96$ ), stimulating environment and learning areas ( $M=1.22$ ,  $SD=.36$ ), parental involvement ( $M=1.43$ ,  $SD=.89$ ), and children's assessment ( $M=1.44$ ,  $SD=.56$ ). These largely unsatisfactory scores could be due to lack of specialised training courses in ECE despite most of the pre-primary teachers possessing teaching certificates. As the UNICEF (2017) pointed out, this lack is alarming because most of the pre-primary teachers are not well-informed about the theories of child development and best practices in age-appropriate instruction, which inevitably affects their practice.

With regard to the relationship between pre-primary teachers' knowledge and their practice, the study found no statistically significant relationship between pre-primary teachers' knowledge and their practice of ECE ( $r = .344$ ,  $p>.05$ ). This implies that knowledge does not necessarily translate into actual and requisite practice. This finding is consistent with previous research in abundance. Indeed, this research has demonstrated that teachers' beliefs and knowledge are not always consistent with their instructional practices (see, for

example, Shukia, 2014, Kostopoulou, 2005). Similarly, the findings of the current study confirm the activity theory's assumption that dissonances are an inherent aspect of an activity, which refers to teaching in this context. This could be attributable to several factors including teachers' little knowledge, 'ill-defined' class context (large class sizes, lack of teaching-learning materials, lack of teachers' guidelines, limited time allotted for instruction, etc.) in which teaching takes place, 'under-qualified' teachers, and teachers' beliefs which might contrast with the expected practices. In this situation, teachers tend to rely on their own experiences, background, and beliefs. These aspects might form a basis for inconsistencies between teachers' knowledge and practices observed in this study. Apparently, the teachers' little knowledge about early childhood education, unsatisfactory instructional practices are threatening the realisation of pre-primary education goals, and even potentially translating into children's unpreparedness for primary education.

### **Conclusion**

On the whole, the study shows that pre-primary teachers have little knowledge on ECE and their instructional practices remain largely unsatisfactory. This unsatisfactory teachers' knowledge and practices is attributable to the unavailability of pre-primary curriculum in schools coupled with limited teachers' qualifications as the majority of these teachers did not have a background in early childhood development teacher education. However, the study found no significant statistical relationship between knowledge and practice in ECE among pre-primary teachers studied. In fact, teacher's knowledge was not always consistent with their practices. This could be attributed to the limited teachers' knowledge and prevailing classroom situations. Implicitly, this state of affairs threatens quality delivery of the pre-primary education curriculum and the attainment of the desired pre-primary educational goals. Thus, the study suggests a need to reorient teachers to the pre-primary education curriculum in relation to their knowledge and socio-contextual factors within which instructional practices take place. The study also recommends for supply of curricular materials, and provision of continual in-service teacher professional development programmes to equip teachers with opportunities for reflection and acquisition of new knowledge, skills and evidence-based effective pre-primary practices. In this regard, the continued exposure to practical-based training in their in-service training might be more effective. Furthermore, there is a need to uncover and address factors that undermine the effective marriage between teachers' knowledge and practices.

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