AFC Study Report

The Early Learning Study on Play based Methods and teacher capacity in Ghana: Qualitative component at school/community base

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Table of Content

List of Tables		v
List of Figures		vi
List of Boxes		vii
List of acronyms	,	viii
Executive summary		ix
1.0 Introduction		1
1.1 Background and problem statement		1
1.2 Research questions		4
1.3 Objectives of the study		4
1.4 Relevance of the study		5
1.5 Report structure		5
2.0 Research methodology		6
2.1 Research design		6
2.2 Population, sample size and sampling procedures		6
2.3 Data collection tools		7
2.3.1 Teacher training college level tools	7	,
2.3.2 District education directorate level tools	, 7	
2.3.2 Bistret cudettion directorate level tools 2.3.3 Basic school level tools	, 7	
2.3.4 NGO level tool	8	
2.4 Data collection procedures	0	8
2.5 Data management and analysis: collation, cleaning and presentation		8
2.6 Research ethics, child protection		9
2.7 Gender, equity and inclusion		9
2.8 Study limitations		10
3.0 Overview of education innovators implementation		11
3.1 The play for advancement of quality education intervention across eight countries		11
3.2 Fast-track transformational teacher training programme		11
4.0 Results and findings		13
4.1 Introduction		13 13
4.1 Introduction 4.2 Demographic characteristics of district and schools		13 13
4.2.1 District characteristics	13	13
4.2.1 District characteristics 4.2.2 Demographic characteristics of parents in focus group discussion	13	
	13 14	
4.2.3 Demographic characteristics of teachers 4.2.4 The state of infrastructure in selected schools		
	15	17
4.3 Findings on Theme 1: Integration of Play-based Pedagogy at school level	17	17
4.3.1 Knowledge on play-based learning and play-based pedagogies		
4.3.2 Perceptions of play-based learning and play-based pedagogies	22	
4.3.3 Attitude of play-based learning and play-based pedagogies	24	
4.3.4 Usage of play-based pedagogies including examples	24	
4.3.5 Support received to implement play-based learning	28	
4.3.6 Support offered to train teachers on play-based learning and the usage of play-base		
methods	29	25
4.4 Gender and children inclusion with special educational needs	25	35
4.4.1 Gender Inclusion	35	
4.4.2 Inclusion of children with special educational needs	38	40
4.5 Findings on Theme 2: Adaptation of curriculum to play-based methodology	40	40
4.5.1 Methodology of the standard-based curriculum	40	
4.5.2 Provisions made to ensure successful implementation of play-based learning	41	
4.5.3 Limiting factors in adapting to standard-based curriculum	42	

4.5.4 Addressing limiting factors in adapting to the standard-based curriculum	42
4.6 Findings on Theme 3: Existing innovations that support teacher capacity in implemen	ting
play-based learning	43
4.6.1 Education innovators in the early learning space and their values	43
4.6.2 Volunteer Teachers	43
4.6.3 Perceptions/opinions about the innovator's programme	44
4.7 Findings on Theme 4: Impact, change and influence of education innovators	44
4.7.1 Impact of the early learning play-based programme at school level	44
4.7.2 Impact of innovators programme on child development	48
4.7.3 Impact of early learning play-based approaches on child development and impact	on
parents and community	51
4.7.4 Sustainability and scalability of the gains of the interventions	52
4.7.5 Challenges to the sustainability of interventions	53
4.8 Findings on Theme 5: Cost efficiency	54
4.8.1 Cost effective approaches	54
4.8.2 Values of the cost-effective approaches	55
4.9 Findings on Theme 6: Effectiveness and challenges of play-based learning and the wa	ιy
forward	55
4.9.1 Benefits associated with play-based learning	55
4.9.2 Challenges to play-based learning	60
4.9.3 Ways to address the identified challenges	64
5.0 Conclusion, recommendations and lessons learned	66
5.1 Conclusion	66
5.2 Recommendations/Implications	70
5.2.1 Government/Policy	70
5.2.2 Approaches for scaling up	70
5.3 Key Lessons Learned and ongoing research areas for further investigation	70
5.4 Areas which need further investigation by our quantitative team (ISSER)	70
References	71
Annexes	72
Annex I: Other educational innovators in the early learning space and their programmes	72
Annex II: Research instruments	73

List of Tables

Table 1: Colleges of education	6
Table 2: Intervention and non-intervention districts	7
Table 3: Milestone of the study	8
Table 4: Number of ECCD centers and pupil teacher ratio across the selected districts	13
Table 5: Number of teachers in schools in Northern Region	14
Table 6: Number of teachers in schools in Eastern Region	14
Table 7: Summary of impact of play-based approaches in intervention and non-intervention	ention
districts	49

List of Figures

Figure 1: Academic qualification of teachers in selected schools	15
Figure 2: Availability of infrastructure in selected schools	16
Figure 3: Condition of school infrastructure by locality	16
Figure 4: Condition of school infrastructure by intervention type	17
Figure 5: Number of classrooms availability by locality	17
Figure 6: Lack of school room and furniture for early graders and teacher in Yendi	64
Figure 7: Teachers' feedback to pupil in intervention and non-intervention schools	26
Figure 8: Use of language of instruction	26
Figure 9: Language of instruction in classrooms in Ghana	27
Figure 10: Use of TLMs in Lesson	27
Figure 11: Rating of pupil's participation in intervention and non-intervention schools	30
Figure 12: Rating of teachers' sensitivity to diverse learner needs in intervention and intervention schools	non- 47
Figure 13: Rating of teachers' sensitivity to diverse learner needs in intervention and nor intervention schools	1- 61

List of Boxes

Box 1: Excepts from non-intervention districts on play-based learning	19
Box 2: Excerpts from intervention districts in Northern Region	19
Box 3: Excerpts from non-intervention districts in Northern Region	19
Box 4: Excerpts from intervention schools in Eastern Region	20
Box 5: Excerpts from non-intervention districts in the Eastern Region	21
Box 6: Excerpts from intervention schools in Northern Region	21
Box 7: Excerpts in non-intervention districts in the Northern Region	22

List of acronyms

DFID	Department for International Development			
ECCD	Early Childhood Care and Development			
ECE	Early Childhood Education			
FGD	Focus Group Discussion			
FTTT	Fast-Track Transformational Teacher Training			
GALOP	Ghana Accountability for Learning Outcomes Project			
GES	Ghana Education Services			
IPA	Innovation for Poverty Action			
KG	Kindergarten			
KII	Key Informant Interviews			
KWL	Know-Want-To-Know-Learn			
MICS	Multiple Indicator Cluster Survey			
PTA	Parent Teacher Association			
RTP	Right to Play			
SEN	Special Education Needs			
SISO	School Improvement Support Officer			
TLRs	Teaching and Learning Resources			
T-TEL	Transforming Teacher Education and Learning			
UNICEF	United Nations Children's Fund			
USAID	United States Agency for International Development			

1.0 Introduction

1.1 Background and problem statement

Scientific research has established that the most crucial period of human development is from birth to eight years old (Barth & Liggett-Creel, 2014). Promoting early childhood education in line with the Sustainable Development Goal 4, which seeks to ensure that, by 2030, "all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education" (UNICEF, 2018) is an essential pre-requisite for foundation learning and economic development in any nation. According to UNICEF, pre-primary education is now considered an essential tool for achieving Universal Primary Education, equity and the SDGs. Ensuring access to quality pre-primary education is a crucial strategy for any government attempting to improve basic learning and education outcomes as well as the efficiency of education systems particularly for the poor.

A central tenet of enhancing learning during early childhood is participatory learning approaches such as play-based learning as prescribed in Ghana's Early Childhood Development Plan (Ministry of Education, 2004) and Sierra Leone's Integrated Early Childhood Development policy (MBSSE, 2021). Play-based learning brings together the different spheres of children's lives – home, school and community, and the wider world. This enables continuity and connectivity of learning over time and across different situations (UNICEF, 2018). For instance, Ali, Aziz and Majzub (2011) showed that teaching and learning through play could enhance a child's language development and reading abilities. Their results indicated that teaching and learning through play sustains children's attention span and develops their reading skills, providing more opportunity for children to talk using varied words. Also, Olowe, Ojoko and Onuegbu (2020) found that water and sand play holds many opportunities for children to develop mathematical, language, scientific, physical, social, emotional, and creative skills. Vogt et al. (2018) showed higher learning gains overall for the play-based approach and concluded that play-based interventions were better suited to children's diverse needs.

In addition, Dzamesi and van Heerden (2020), for instance, implemented play-based pedagogy training at the kindergarten level as a form of professional development for teachers in New Juaben in the Eastern Region of Ghana. The training improved the teachers' knowledge, beliefs, attitudes and consequently, their approaches to implementing the indigenous play-based pedagogy. Similarly, an evaluation of the Sabre Foundation's Education Fast-Track Transformational Teacher Training (FTTT) p rogram by Wolf et al. (2017) showed that the FTTT program improved teachers' classroom practice using the play-based approach across sampled schools. In all three rounds of follow up data collection, treatment group teachers implemented significantly more child-led learning activities compared to non-treatment groups. Also, Innovation for Poverty Action's (IPA) evaluation of the program found that Sabre Education's in-service teacher training and coaching improved teachers' use of the play-based kindergarten-specific pedagogy, which improved children's school readiness, including early literacy, early numeracy, and social-emotional skills.

To achieve the best educational outcomes for children, best practice demands that curriculums are regularly reviewed to respond to national and global priorities. The Ghanaian Pre-tertiary Education Curriculum, which is officially defined by the subject syllabuses, is based largely on the objective model of curriculum development which was used in many developed countries in the last half of the 20th Century. The use of the objective model of the curriculum led to an overemphasis on the products of learning; that is, knowing basic facts, principles, skills and procedures at the expense of the approaches and processes of learning which involve higher cognitive competencies such as applying, thinking critically, creatively and practically; and the personal qualities and social skills necessary to become competent, engaging and contributing citizens.

However, until 2017, Ghana's curricula since 2004 had seen little or no revisions. Even though the Ministry of Education expects a five-year curriculum revision cycle, this has not been the case in the last two decades. Additionally, the teacher education curriculum has not adequately responded to the limited improvement in learning outcomes at the basic school level. Ghana, therefore, implemented a new Pre-tertiary Education Curriculum in 2017/18 with a paradigm shift from an objective-based learning to a standard-based learning aimed at building character, nurturing values, and raising literate, confident, and engaged citizens who can think critically. The ministry has also been working with UNICEF and other partners on a new more child-centred approach to early learning. The Ministry in 2020 launched the Early Childhood Education (ECE) Policy to guide early learning interventions in the country. The new curriculum emphasizes participatory, activity and play-based teaching and learning approaches as opposed to eclectic and rigid objective-based approaches.

As part of the successes of the reforms in the pre-tertiary education curriculum, Ghana has successfully integrated Kindergarten (KG) education into the formal school stream. Yet, inequality in enrolment in early childhood education continues to persist across gender, disability and geographic locations of the Ghanaian child. For instance, the latest Multiple Indicator Cluster Survey [MICS] (2020, p. 226) report shows that the percentage of male children aged 36-59 months who attend early childhood education is 71.4 percent while 70.4 percent of female children have enrolled in early childhood education. The gap is much wider across the northern and southern parts of the country. The report also shows that enrolment in early childhood education is much lower in the Northern (46.2%), Upper East (65.1%) and Upper West (62.8%) regions compared to other children in the regions in the southern of Ghana, like Western (74.5%), Central (85.6%) and Greater Accra (86.1%). It is therefore important this study explores the effectiveness of play-based approaches in teaching and learning to bridge the inequality gap in early childhood enrolment across gender and regions in Ghana.

The new national teacher education curriculum framework developed as part of the new Pretertiary Education Curriculum which is being used in colleges of education and teachertraining institutions to build the capacity of pre-service teachers also emphasizes play-based teaching. The pre-service training is currently being delivered by the ongoing Transforming Teacher Education and Learning (T-TEL) program funded by DFID while UNICEF is supporting the development of training resource materials to support specialized training of KG teachers as part of the curriculum rollout when they complete school.

The Education Innovators (Right to Play and the Sabre Foundation) in Ghana are working closely with UNICEF and the Ministry of Education on a pre-service training programme across 15 teacher training institutions in Ghana to ensure that child centered play-based approaches are fully integrated into the pre-service curriculum. Through the World Bank Supported program in Ghana - the _Ghana Accountability for Learning Outcomes Project' (GALOP), the Ministry of Education is implementing pre-service training across 15 districts directly and 45 districts indirectly through district teacher support teams. In Sierra Leone, accessing ECE centres is a problem. Only 12 percent of children aged 3-5 years old attend an

organized ECE programme in Sierra Leone. Just 2 percent of children under five have access to three or more reading books (MBSSE, 2021). There are also quality issues at the early grade levels. With the high number of unqualified teachers and increasing enrolment at the early grade level, quality becomes an issue. In Sierra Leone, early grade teachers, in this case considered as those teaching grades 1-3 of primary, typically have the highest workload, the highest pupil-to-teacher ratios and are most likely to be unqualified. The pupil-teacher ratio is 34 in the later grades of primary, compared to 44 in the earlier grades. There is a far higher share of unqualified teachers in early grades as well, which raises the pupil to qualified teacher ratio from 47 in the later grades to 77 in the earlier grades. More than two thirds of the need for qualified teachers at primary level is in the early grades (Mackintosh et al., 2020).

Equity issues also exist in education particularly at preprimary level ; a vast number of preprimary school-age children do not have access to pre-primary school. Where this is provided, the quality of service has been uneven. There is still inequity in the provision of general schooling and in enrolment across geographical areas. Many children are still starting primary school late, above the official age. In addition, many children with disabilities are out of school (GoSL, 2019). In this regard, Sierra Leone's Early Childhood Development (ECD) policy as well as the ECCE Minimum Standards and Curriculum have also been reviewed to strengthen centre-based activities for young children in communities (UNICEF, 2018).

Beyond this, UNICEF in 2018 supported community-level training workshops for 1,389 workers/educators, 1,520 caregivers, NGO partners, District Education community ECE and Local Council representatives. The training supported capacity development in project implementation use and management of ECE kits and approaches to support improved children and parents/caregivers' interactions. Trained participants implemented activities at ECD centres, which targets children three to five years. Activities included play-based early learning sessions for school readiness skills; and transition to primary school at age six. In addition, to improve the early learning environments and opportunities, UNICEF provided 153 ECE kits containing toys and play materials for all 42 ECE centres (UNICEF. 2018). UNICEF continued to educate caregivers and craftsmen in communities on the importance of developing cost-efficient toys/play materials using local materials. The idea of low-cost Teaching learning materials and toy-making is now embraced by communities, as communities are now making toys for children using local and recycled materials.

Based on the work of UNICEF, three lessons emerge that highlight the problems of teacher capacity at the early learning stage. Some of the key findings are firstly, at the end of their preschool years, children of pre-school age who attend community-based pre-schools are expected to converge at primary class 1 with those who attend school-based pre-schools. As a result, there is a need to improve quality play-based learning for young children at community-based centres, with links to the EC E curriculum. Secondly, there is currently a shortage of trained and qualified ECE teachers, and the few that are available only have Teacher Certificates or Diplomas. Since they are already attached to primary schools in many cases, trained and qualified teachers in communities are not available to facilitate play-based learning. Thirdly, the inability of NGO partners and District Education Inspectors and Supervisors to conduct effective on-site monitoring, supervision, and coaching can have an impact on the quality of reporting and implementation of community based ECE . In sum, UNICEF supports teachers' and school administrators' continuous professional development by providing in-service training in early grade reading and numeracy to improve instruction and child-centred participatory teaching techniques in both Ghana and Sierra Leone.

The innovator in Sierra Leone is piloting an approach which could prove imperative for closing the trained teacher gap visible in several West African Countries including Ghana. Teach for Sierra Leone is using a five-week training programme with National Service Volunteers to provide two years of service in early learning centres run by Government and communities across the country. This approach promises to lower the cost of training and could also enhance the presence of graduates in the most remote rural areas where early childhood educators are hard to find. Teach For Sierra Leone approach is play-based and child-centred.

Still, there are questions about the potential for the early years of teacher training and deployment due to inadequate capacity building and available teachers; lack of readiness to shift approaches due to limited in-service teacher training to carry out the new early childhood innovations. For instance, the Ghana Education Service provided only a 5-day inservice training workshop for KG and primary school teachers to begin the rollout of the new curriculum. This was not seen as inadequate by teachers to reorient in-service teachers who have practiced objective-based teaching approaches for decades. Already, many studies have shown that inadequate preparation of teachers to implement play-based learning in their classrooms is a great obstacle to quality education in ECE. An example was what Cheng (2012) showed to be a gap between teachers' theories and practice, as practitioners expressed immense difficulties in understanding the concept _learning through play'. Fesseha and Pyle (2016) also found inconsistencies in teachers' definitions and implementations of play-based learning in kindergarten classrooms. These varying perceptions of the definition and place of play resulted in differing levels of willingness to include child-initiated play that was spawned within the educational contexts (Ranz-Smith, 2007).

1.2 Research questions

The core research questions for this study are:

- 1. How is the new early learning curriculum with play-based approaches integrated into the pre-service and in-service teacher training programs?
- 2. How is the educational system adapting to the changes in the new early learning curriculum?
- 3. What innovations in play-based learning exist to support teacher capacity to implement play-based learning and what added value are these making (e.g., volunteer teacher models and right to play models)?
- 4. How are education innovators in the early learning space influencing the early childhood education quality and uptake in Ghana and Sierra Leone?
- 5. Can there be more cost-effective approaches to scaling up early learning activities through volunteer teacher programs?
- 6. What is the value addition of play-based learning methods compared to schools which do not implement these, particularly in relation to early grade reading outcomes?

1.3 Objectives of the study

This research project is aimed at bringing together multiple stakeholders in early childhood education in Ghana and Sierra Leone to enhance ECE teachers' capacity for the implementation of innovations in play-based learning at early childhood levels of education. These innovations in play-based approaches will assess the shift in teaching towards more play-based approaches through the evaluation of teaching and learning outcomes across a variety of schools in urban and rural schools along with the cost of implementation.

The specific objectives of the study were to

- 1. enhance the capacity of teachers to implement play-based learning for early childhood.
- 2. mobilize key stakeholders such as headteachers, district and national education authorities, and communities to collectively support play-based learning and ensure its sustainability and scalability.
- 3. generate knowledge and evidence on play-based approaches to improve early learning that ensures gender equality, physical and social inclusion, and their cost-effectiveness and scalability.
- 4. generate knowledge and evidence on play-based approaches to improve early learning that ensures gender equality, physical and social inclusion, and their cost-effectiveness and scalability.

1.4 Relevance of the study

The study is timely because it aims to investigate gender and inclusion-related concerns at the level of early childhood education. The focus will be on the steps that teachers implement to ensure that girls and boys are equally represented in all school activities, especially playbased learning. In addition, consideration will be given to how teachers relate with students with special education needs and how school authorities facilitate the teaching-learning process for these children. All these are expected to generate evidence of what works to improve classroom practice of play-based learning in early childhood education in Ghana and Sierra Leone.

Furthermore, the project seeks to explore how the selected education innovations can help close the gap in teacher training at early childhood education levels and within community-based learning centres particularly in rural and extreme poverty zones across Ghana and Sierra Leone. The evidence and recommendations of this project will help provide the basis for sound policies in both countries with direction on scalable approaches which can open access, improve quality and ensure adequately trained teachers for the early childhood level.

1.5 Report structure

This research is structured in five main chapters. Chapter one outlines the introduction of the study including the purpose and research questions. Chapter two describes the research methodology and the basis for sampling approach. The case studies are presented in chapter three. In chapter four, the themes and sub-themes derived from the research objectives are presented succinctly for a comparative analysis within and between cases. The final chapter is dedicated to the conclusion, recommendations, and suggestions for further studies.

2.0 Research methodology

2.1 Research design

Generally, the research design is an exploratory sequential design involving a mixed-method research approach. The study was conducted in three phases. The first phase comprises qualitative data and analysis, followed by a second phase of quantitative data collection and analysis. The final phase comprises interpretation and explanation of qualitative and quantitative results. Considering the first phase, the qualitative study explored the complex web of interrelationships between pre-service training of teachers and the teacher uptake from College of Education level down to the school and community levels. The design was experimental such that a comparison was made between intervention schools where early grade teachers have received training on play-based learning and non-intervention schools where teachers have not received any or less training on play-based learning.

2.2 Population, sample size and sampling procedures

The target population for the study consisted of teacher training colleges, education service directorate, basic schools and school communities. A purposive sampling technique was used to select districts that Right to Play (RTP) and Sabre Education have operated or are operating over the last 3 to 4 years in Northern and Eastern Regions. They were referred to as intervention¹ and non-intervention² districts. The study used a purposive sampling technique to select colleges of education, basic schools and respondents. Subsequently, 4 districts were selected (comprising 2 intervention and 2 non-intervention) in each region. In the intervention districts, 8 ECE schools were selected whilst 4 schools were selected in the non-intervention districts. The following four indicators were used to determine the selection of the schools in both intervention and non-intervention districts.

- Urban (i.e., schools located in the district capital)
- Peri-urban (i.e., schools located within an hour's radius of the district capital)
- Rural (i.e., schools that were difficult to access and are farther away from the district capital, usually, between 1- and 3-hour walking distance)
- Extremely deprived rural communities (i.e., schools that were difficult to access and are farther away from the district capital, usually, more than three hours walking distance).

The colleges of education and the number of schools by status are presented in Tables 1 and 2, respectively. The respondents included KG1 - P2 teachers, headteachers of basic school, learners in KG1 - P2, parents, District Education Directors, District Early Childhood Coordinators, S chool I mprovement S upervisions O fficers (SISO), third- and fourth-year student teachers at the college of education level and college tutors.

S/N	Region	College of Education				
1.	Northern	Bagabaga College of Education				
		Tamale College of Education				
2.	Eastern	Presby Women's College of Education				
		Seventh-day Adventist College of Education				

 Table 1: Colleges of education

¹ the presence of education innovators implementing or promoting early play-based teaching and learning methodologies in districts the study classified as intervention.

 $^{^{2}}$ the districts that RTP and Sabre Education are not operating or implementing direct play-based teaching and learning methodologies.

S/N	Region	District	Status	Target Schools
		Tolon	Intervention	8
1	Northern	Kumbungu	Intervention	8
1.	normern	Yendi	Non-intervention	4
		Mion	Non-intervention	4
		Akwapim South	Intervention	8
2.	Eastern	New Juaben Municipal	Intervention	8
		Suhum Kwabre Coaltar	Non-intervention	4
		Yilo Krobo	Non-intervention	4

Table 2: Intervention and non-intervention districts

2.3 Data collection tools

The tools developed for this study were a semi-structured interview guide, key informant/expert interview guide, focus group discussion guide, school checklist and lesson observation guide. At the college level, the lesson observation guide was used to understand how student teachers are trained to implement play-based learning among early childhood learners . At the school level, lesson observation guides were used to observe and understand how early childhood teachers teach, ensure effective participation of both genders and how they use play-based instructional tools among learners.

The study adapted Varkey instruments. The areas that guided the adaptation of the instrument were the play-based activities. In line with the themes under the objectives, the instruments intended to measure effectiveness (learning, teacher uptake, improve pedagogy) and scalability (cost, relevance, challenges, teacher availability). The specific tools used to elicit the required data from the various stakeholders are listed below

- 2.3.1 Teacher training college level tools
 - 1. Interview guide for principals/vice principals
 - 2. Interview guide for college tutors
 - 3. Lesson observation instrument for student teachers
 - 4. Lesson observation instrument for tutors
 - 5. Post-lesson observation interview guide for college tutors
 - 6. Focus Group Discussion with student teachers

2.3.2 District education directorate level tools

- 1. Interview guide for District Directors of Education
- 2. Interview guide for Early Childhood Education Coordinators
- 3. Interview guide for School Improvement Support Officers

2.3.3 Basic school level tools

- 1. Interview guide for headteachers
- 2. Interview guide for early childhood teachers (KG1-P2)
- 3. Lesson observation guide for early childhood classrooms (KG1-P2)
- 4. Post-lesson observation guide for early childhood teachers
- 5. Focus group discussion guide for parents and PTA members

2.3.4 NGO level tool

1. Interview guide for District programme coordinators and facilitators

2.4 Data collection procedures

The data collection was preceded by the recruitment and training of research assistants. The research assistants were 50 percent male and female drawn. In the northern region, the researchers were drawn from the study districts and trained in the regional capital. In the Eastern region, AfC recruited most of the researchers from the Eastern region and 3-4 early childhood researchers in the University of Education, Winneba. The Eastern region team were trained at AfC conference hall in Accra before they were deployed to the various districts. The training of research assistants and data collection covered a period of 2 weeks.

Since the ECE coordinators and education innovation programme coordinators were automatic research assistants, they led the research teams to the education directorate and school communities for proper community entry. The research team presented letters from the Ghana Education Service headquarters in Accra to the District Directors to gain access to the districts and schools. Hence, the data collection began from the district education directorate where the District Director, SISO and ECE Coordinators were interviewed. Subsequently, the school and community levels data collection were conducted. A whole data set was dedicated for each selected school and community for a comprehensive data collection.

Due to strike action at the college level, the interviews at the college level are yet to be conducted. Thus, the data analysis and presentation exclude the views of the stakeholders from the colleges . Table 3 presents the activities spanning the design workshop through to the development of instruments to the collection of qualitative data.

Date
September 01, 2022
September 05-07, 2022
September 10-17, 2022
September 30-October 4, 2022
October 21-23, 2022
October 23-November 02, 2022
December 12, 2023

Table 3: Milestone of the study

2.5 Data management and analysis: collation, cleaning and presentation

The data were collated at the district and regional levels for proper labeling to enable easy identification. The data were cleaned followed by coding based on the research objectives and responses. The raw data and codes were entered into Dedoose for further coding and processing. Two research fellows (1 male and 1 female) were recruited for a period of 6 weeks to join AfC research team to code, analyse and write the report.

Prior to this, data entry clerks were employed to enter the front content (which contained the biographic data of participants) of each of the instruments in Ms Excel to enable the researchers to describe the respondents of the study. The presentations of the study results are based on the themes and objectives of the study. Narrations and direct quotations are used to illustrate the findings. Some of the key quotations are presented in boxes while tables were used to present a summary of the main similarities and differences between intervention and non-intervention, between the regions and intersectional variables of interest.

2.6 Research ethics, child protection

Ethical clearance was sought before the data collection at all stages of the study. This included informed consent, anonymity, confidentiality and data management protocols. AfC is a research institution which complies with all country-level ethical guidelines and protocols in conducting research and evaluations of this nature. The following protocols were used to comply with the highest ethical standards: access and entry protocols to the community and district with special emphasis on adherence to all COVID-19 protocols; maintaining the confidentiality of respondents' information; voluntary participation/withdrawal; informed consent procedures; and maintaining anonymity. AfC was guided by the Global Policy on Safeguarding Children and Young People when conducting the qualitative study for the early learning project. AFC's evaluation team observed key ethical considerations relating to access and entry protocols at District and school levels and administered informed consent before any interview was conducted.

Confidentiality of Participants' Information: The study guaranteed the confidentiality of participants and information provided in the course of the evaluation. In this regard, researchers conducted interviews with participants respecting their privacy (no other individuals present, unless specifically requested by the respondent).

Voluntary participation/withdrawal: At any time in the selection process for the in-depth interviews/lesson observation, participants were given the choice to opt out at any time. Respondents to the interviews had the right to stop taking part in the interview session/lesson observation at any time during the process. This was communicated to participants before the interviews and observations started.

Informed Consent Procedures: The consent of all adult participants in the study was obtained before engaging them in the study. In the situation where learners were engaged in some play- based learner activity the researcher/s obtained the consent from the class teacher. All consent statements contained information the respondent needed to make an informed decision about whether or not to participate in the evaluation exercise. When responses were not given from the respondent affirming consent to participate, the interview/observation did not continue.

2.7 Gender, equity and inclusion

Associates for Change is committed to ensuring equity and gender inclusion across all levels of the qualitative study. To ensure gender balance and inclusion, at least 55% of enumerators were females. Other key gender considerations for conducting the qualitative exploratory study included using female researchers to conduct interviews with FGDs and KIIs with female participants (particularly parents and teachers), since the interviews required a high level of rapport, and familiarity with the respondents.

In addition, the selection of participants for survey, FGDs and KIIs were based on strong gender considerations. Researchers ensured gender balance in all mixed FGDs. Researchers purposely included female head teachers and teachers for the data collection. In addition, persons with disabilities, including women and young females were selected for engagement to ensure inclusiveness.

2.8 Study limitations

The study encountered various forms of limitations including delay in data collections from basic schools because of a two-week long strike embarked on by teachers. In addition, there have been intermittent strikes by colleges of education tutors. As such, data collection at the college level, as indicated earlier, is still pending. This makes the presentation of the results skewed to one direction of the key stakeholders of the research project. Another challenge is the difficulty to access district level data on the number of teachers, enrollment, and pupil-teacher ratio. In some instances, the Districts Medium Term Development Reports fail to capture important data about school characteristics. Also, the lack of proper record keeping leads to the district directorates' inability to provide critical data required for this study. Somehow, this affects the triangulation of some of the variables or indicators.

3.0 Overview of education innovators implementation

3.1 The play for advancement of quality education intervention across eight countries

Right to Play in partnership with Global Affairs Canada implemented the Play for Advancement of Quality Education (PAQE) intervention across eight countries mostly within Sub Saharan Africa (HCA, 2017). Ghana was one of the intervention countries which had the project implemented from 2015 to 2017. The project targeted children aged two to fifteen years. RTP trains teachers at KG, lower and upper primary to teach with play-based approaches.

A distinctive aspect of the project was its special focus on addressing barriers to girls' education, using advocacy and sensitization. The core of the intervention was to provide training to identified stakeholders in using the Play-Based Learning (PBL) in conjunction with the Continuum of Teacher Training model developed by RTP. To further enhance learning and the delivery of lessons using the PBL approach, classrooms were reorganized with the provision of play spaces as well as sanitation facilities.

Over the project period, RTP built the capacity of teachers to engage children in both indoor and outdoor play-based activities. It also focused on addressing barriers to girls' education, using advocacy and sensitization and involved the community to tackle the identified barriers to education, especially for girls. At the school level, RTP held various meetings with PTAs and SMCs in the targeted areas to create the awareness of establishing learner-centred school environments.

The project sought to build the capacity of civil society actors to push for the integration of play-based learning approaches and the transformation of school environments into those that are gender sensitive. Additionally, these CSOs were empowered to ensure that policies that centred on early childhood learning were captured, debated on, and implemented at the national level.

Right to Play in 2018 introduced the gender responsive education transformation (GREAT) program funded by the Government of Canada and Global Affairs Canada. The program sought to use play-based learning to tackle barriers to education for girls as well as provide teacher capacity building for higher learning outcomes. The program provided training for 139 head teachers on Learning through Play; Coaching and mentoring teachers; school leadership; and safe school policy. Other modules of the program included how to create professional communities; caregivers and parental engagement; and the setup and support of communities of practices. Additionally, it trained 1,097 teachers on similar modules including the preparation of teaching-learning resources; integration of local games in lesson delivery; peer-to-peer coaching and the standards-based curriculum. These trainings were carried out in collaboration with the MOE, the GES and NTC.

3.2 Fast-track transformational teacher training programme

The Sabre Education programme was the second rollout of the original program that had been carried out for five years with major success. Designed to train early grade student teachers specifically those for KG, in developmentally appropriate KG pedagogy and teaching techniques (play-based learning). This was done through mentorship and coaching by trainers who observed the teachers during their lesson delivery and helped them model best teaching practices. An essential aspect of the program was the head teacher's sensitization. This was to ensure that there would be good reception of the pedagogy that the teachers would be implementing based on the FTTTT training they had received (IPA, 2017). The trainee

teachers were placed in standard KG schools with model practice classrooms, which afforded them the opportunity to obtain one-on-one coaching with trainers as well as feedback meetings and a forum for all participating student teachers to learn from each other's experiences (Wolfe et al., 2017).

The FTTT programme positively impacted teachers who benefited from the training and subsequent implementation. Beneficiary teachers in the end- line evaluation shared a boost in their self-confidence because of being equipped with knowledge on innovative and creative ECE pedagogy.

4.0 Results and findings

4.1 Introduction

This section presents the results and findings based on the research objectives and emerging themes. The results are first level analysis and do not clearly present a contrast between intervention and non-intervention districts or between the Northern and Eastern Regions. In the subsequent section, it begins with the description of the study areas and the demographic characteristics of the respondents to enable us to understand their perceptions.

4.2 Demographic characteristics of district and schools

4.2.1 District characteristics

Table 4 shows that there is a vast difference in the number of ECE centers between public and private schools in Ghana. Overall, it seems that there is a fair distribution of ECE centers between public and private schools in the Eastern Region compared with the Northern Region. In the Northern Region, Yendi district has the highest number of public ECE centers and even more than the selected districts in the Eastern region. Conjecture could be made that public investment in ECE in Yendi was due to improving access to early education for children after the ethnic and chieftaincy conflict. In the Eastern region, there are more private ECE centers in New Juaben compared with the public schools, and almost equal number of ECE centers in Akua pem South and Suhum Kraboa Coltar Districts.

On enrolment, the results show that there are more boys than girls in basic level of education, which reveals that there is still a gender gap due to various supply and demand barriers, including long distance to school and shortage of teachers. For instance, there are a little over half a thousand teachers in Mion district with a pupil-teacher ratio of 40 – one of the highest in the country –, which suggests that teachers may have low attention for learners, especially those with special needs.

Name of district	No of	No of ECE		Enrolment		Pupil-teacher
	Centres					Ratio
	Public	Private	Boys	Girls		
Kumbungu	199	15	16,539	13,537	1,103	26
Yendi	238	58	27,193	24,289	1,262	36
Tolon	178	8	16,745	12,898	953	31
Mion	149	2	11,830	9,627	529	40
New Juaben	186	271	27,094	27,681	1,774	18
Akuapem South	98	93	8,774	8,253	697	17
Yilo Krobo	210	107	15,934	15,203	1,298	18
Suhum Kraboa						22
Coltar	186	185	17,563	16,692	926	

Table 4: Number of ECCD centers and pupil teacher ratio across the selected districts

Source: Education statistics tracking progress in Ghana's basic level education across districts (2010 - 2016)

4.2.2 Demographic characteristics of parents in focus group discussion

Most participants of the community focus group discussions were mothers (80%) in the Eastern region and 64% in the Northern region compared to fathers, revealing that the views of mothers were aptly stated in this report. More women participated in the study because they were those who often visited schools to check on the welfare of their children. The FGDs show that mothers in rural and hard to reach communities had no or little education

compared with those in urban and peri-urban areas who reported having Senior High education.

4.2.3 Demographic characteristics of teachers

The gender and academic qualification of the participants at the education directorate, school and community levels are presented below. In brief, there is no vast difference in teacher distribution of intervention schools in both Northern (107) and Eastern Regions (101).

Gender of teachers in the selected schools

Table 5 presents the gender of teachers interviewed in the Northern region. The results show that there were far more teachers (107 trained and untrained) in intervention schools compared to non-intervention schools (70 trained and untrained), which shows inequity in the distribution of teachers. Within the intervention schools, there were far more male teachers with the majority (80%) being trained compared to female trained teachers (46%). The gender distribution of teachers shows that there were more female teachers in intervention schools compared to those in the non-intervention schools.

		Intervention			Non-intervention			
Teacher type	Female		Male		Female		Male	
Trained	21	45.7	49	80.3	7	18.9	18	54.5
Untrained	25	54.3	12	19.7	30	81.1	15	45.5
Total	46	100.0	61	100.0	37	100.0	33	100.0

Table 5: Number of teachers in so	chools in Northern Region
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Table 6 presents the number of teachers in the Eastern Region. There were nearly equal number of teachers in both intervention (101) and non-intervention schools (91), revealing a fair distribution of teachers in the Eastern region compared to the distribution of teachers in the Northern Region.

Table 6: Number of teachers in schools in Eastern Region

Teachers type	Intervention				Non-intervention			
	Female		Male		Female		Male	
Trained	42	59.2	23	76.7	39	86.7	21	45.7
Untrained	29	40.8	7	23.3	6	13.3	25	54.3

Total 71 100.0	30 100.0	45 100.0	46 100.0
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Academic qualification of teachers

Figure 1 illustrates the academic qualification of teachers in the selected schools. The figure shows that in the Eastern and Northern region, 33% of teachers in intervention schools are trained teachers having bachelor's degrees (with majority being licensed teachers) compared to 17% and 14% of teachers in non-intervention schools with bachelor's degrees. The results also show that 6% of teachers are Masters' degree holders in non-intervention schools in the Eastern region compared to 2% in the Northern region. There were no teachers in intervention schools in the Northern region with Master's degrees. Only 6% and 4% of teachers in intervention schools in both regions were untrained teachers (with only SSSCE/WASSCE).

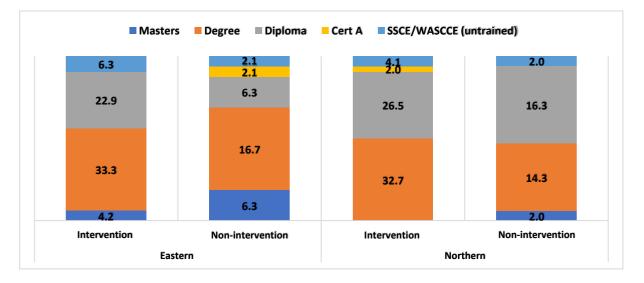


Figure 1: Academic qualification of teachers in selected schools

4.2.4 The state of infrastructure in the selected schools

Figure 2 presents the state of infrastructure in the selected schools across intervention and non-intervention schools in both regions. The school checklist results show that 12% and 28% of intervention schools in the Eastern and Northern regions, respectively, do not have adequate furniture for early graders (KG to P2) – revealing a disparity between them. In the Northern region, 14% of intervention schools did not have enough ventilation. Also, no school in both intervention and non-intervention districts had staff common rooms. The results are like seating spaces between intervention and non-intervention schools in Northern and Eastern regions.

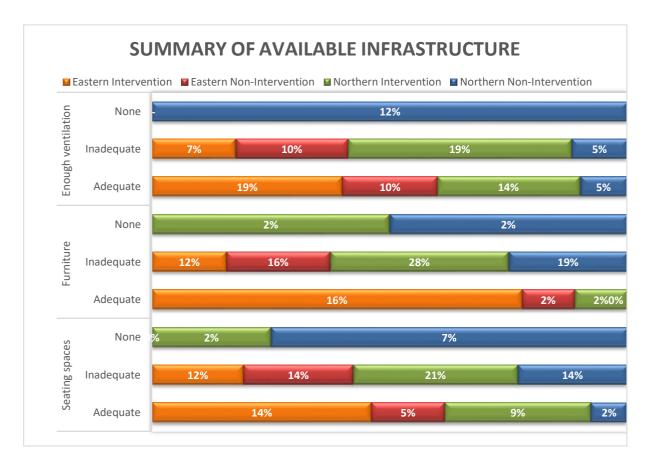


Figure 2: Availability of infrastructure in selected schools

In Figure 3, the results show that 64.3% and 58% of headteachers indicate that the school infrastructure requires repair work in intervention schools in the Northern region and Eastern region, respectively. The results also show that 16% of headteachers indicate that school infrastructure are not in good condition in extremely deprived areas reported.



Figure 3: Condition of school infrastructure by locality

In Figure 4, the results show that 14% of schools in intervention schools are in good condition compared with 11% in non-intervention. Also, 11% of the schools in non-intervention areas are not in good condition compared with 9% in intervention schools. Furthermore, 36% of schools in intervention schools and 18% in non-intervention schools require repairs .

Condition of School Infrastructure by Intervention type

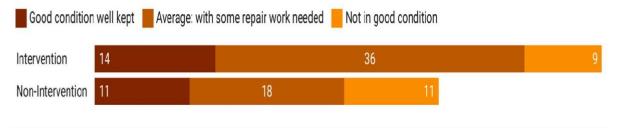


Figure 4: Condition of school infrastructure by intervention type

Figure 5 illustrates the number of classrooms availability by intervention . The situation is worse in the Northern region in comparison with the Eastern region. The results show that in the Northern region, 70.0% and 69.2% of non-intervention and intervention schools, respectively do not have adequate classrooms for early childhood learning. The intervention and non-intervention schools in the Eastern region have a fairly adequate number of classrooms with 63.6% and 75.0%, respectively.

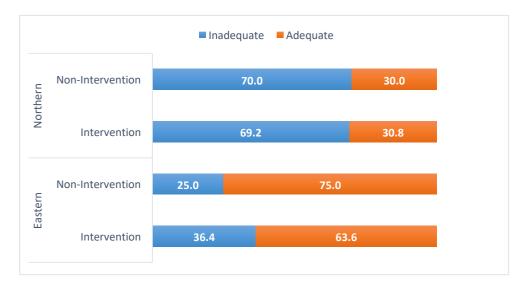


Figure 5: Number of classrooms availability by locality

4.3 Findings on Theme 1: Integration of Play-based Pedagogy at school level

Integration of play-based approaches focus on the interweaving of child-directed play and learning, guided play and learning, and adult-led learning. This section highlights the knowledge, perceptions and attitudes of the sampled participants about play-based learning and play-based pedagogies. It as well focuses on the support received by teachers from headteachers and other officials at the District Education Service Offices and the supports offered to the participants from the perspective of District Education Officials in the selected regions (Eastern and Northern) across both the intervention and non-intervention districts of these regions. The intervention districts in the Eastern Region were Akuapem South and New Juaben with Kumbungu and Tolon as those for the Northern Region. The non-intervention districts in the Eastern Region were Yilo Krobo and Suhum districts and Mion and Yendi districts for the Northern Region.

4.3.1 Knowledge on play-based learning and play-based pedagogies

All the participants across the two (2) selected regions from both the intervention and nonintervention districts displayed varied degrees of knowledge on the meaning of play-based learning as well as play-based pedagoies at the early childhood level of education. The lesson observations showed that the majority of the participants displayed: -excellent to good knowledge on the meaning of play-based learning; and a few showed -little knowledge on the topic. There were generally no marked disparities or differences between the participants' responses in either of the two selected regions, irrespective of the location (urban, peri-urban, rural, or extremely deprived areas). Each of the participants showed a good command of the knowledge on play-based learning with a few giving examples of some pedagogies used in the approach and its utility. For instance, a recurrent definition of play-based learning by the participants was, -learners learning through play. Even those responses from participants with little knowledge on the pedagogy showed that they had general ideas about the pedagogy. The most probable explanation for this outcome is the presence of many other innovators such as USAID, Jolly Phonics, Opportunity Education, T2E amongst others, offering training on play-based pedagogy to teachers in both the intervention and nonintervention districts of the two(2) regions, the introduction of play-based pedagogy as a course of study in the Colleges of Education in the last two years, the numerous in-service trainings organized by the Ghana Education Service (GES) and the various Schools to mention but a few. The following excerpts from some participants across both the intervention and non-intervention districts, give a detailed account of their knowledge on play-based learning. The quotes directly below are from some participants in the intervention schools in the Eastern Region.

Play-based learning is teaching and learning which involves activities such as dramatization, role play, observation and all other things that you will do to bring everything out of children (KII with Headteacher, Akuapem South, Intervention district).

When we say play-based learning, it refers to when learners learn through play. That is, as they learn, they are playing and as they are playing, they are learning (KII with Headteacher, Akuapem South).

Play-based learning is the combination of play and learning at the same time. While you are giving the children tuition, then along the line, you may have some teaching aids to assist the children (KII with Headteacher, New Juaben, Intervention district).

Play-based learning is where materials are given to the pupils to manipulate them to come out with what the teacher wants.... Materials will be given to the children, but it goes with instructions.... So, we have the circle time, the indoor time etc (KII with Headteacher, New Juaben).

The responses from the non-intervention districts in the Eastern Region in terms of the knowledge about play-based pedagogy were not different from the above. The excerpts below are a confirmation of this.

My understanding is that it is about planning lessons around activities in such a way that learners will participate freely without thinking they are learning, while in fact, they are learning (KII with Headteacher, Suhum Non-intervention).

Play-based is a method of learning in which the children play as they learn. Sometimes I use songs out of the concept(s) I want the children to grasp....for example plant, plant, plant, some are short, some are tall and they give us food. So, as they recite, they grasp the concept. Also, through role play and demonstration, the children get the concept(s) you want them to learn (KII with Teacher, Suhum).

As the saying goes, if you want to teach a child to understand very well, you need to do it through play. There is a German psychologist called Frobel, he described the kindergarten as a garden of play. Kids are taught best through play, so my understanding is that from the kindergarten to the lower primary levels, rhymes and songs are the key to learning (KII with Headteacher, Yilo Krobo).

I think play-based learning is a sort of teaching method in which children are engaged in playing, however, through the playing, they learn basic skills like writing, speaking, arithmetic etc (KII with Headteacher, Yilo Krobo).

Play-based learning is something like an activity method of teaching and learning. As the saying goes, when children play and are involved in activities, that is when they will always recollect and remember, that is when they will all be involved in the lesson... (KII with Headteacher, Yilo Krobo).

The responses from both the intervention and non-intervention districts in the Northern Region also followed a similar trend as the participants exhibited excellent to good understanding of the meaning of play-based learning. The excerpts directly below are some responses from the intervention districts.

Play-based learning is a method of learning whereby the teacher uses activities such as role play in the lesson to ensure that all the pupils get involved in the lesson (KII with Teacher, Kumbungu).

Play-based learning methods are practical ways of teaching and learning which involve play (KII with Teacher, Kumbungu).

It is the method of using play as part of learning activities to engage children during teaching and learning (KII with Headteacher, Tolon).

As intimated earlier, the responses from the non-intervention districts of Mion and Yendi were no different as they depicted or followed a very similar trend of good to excellent knowledge of play-based pedagogy. Some of the excerpts from the interviews are as follows:

Play-based approach is the use of play and games in teaching to enable children to understand, the approaches include games and songs (KII with Teacher, Yendi).

To my understanding, play-based learning is an activity that helps in teaching and learning. It is usually done at the introduction of the lesson or during the lesson delivery. Some of the approaches are grouping, that is, putting the learners in groups, and outdoor, that is, bringing the learners outside to perform an activity (KII with Teacher, Yendi).

It has to do with inclusion of games when teaching children (KII with Teacher, Mion)

However, a few of the teachers from the non-intervention districts exhibited a low level of understanding of play-based learning. Thus, a participant stated that —*Play-based learning is when pupils learn with objects.... I do not really know much about it* (KII with Teacher, Yilo Krobo).

Even though the presence of many innovators in the districts (intervention and nonintervention) could in one breath be seen as a positive influence on the propagation of playbased pedagogy in the Ghanaian educational space, especially in the non-intervention district where majority of teachers have benefitted from their trainings and various forms of interventions in the use of play-based learning, in another breath, it could have dire consequences on the educational sector and impact the learners negatively due to the seeming experimentation by the various schools of the different methods employed by the different innovators. The schools literally jump onto every intervention introduced by these innovators and just as quickly as they jump, they move on to the next one introduced. This attitude does not only leave gaps in the educational system but does not ensure continuity in the learning process of the pupil. This is especially dangerous where the different innovators prescribe different modes or approach to be employed by the schools in adopting the pedagogy. For example, Learning by USAID and Jolly Phonics, two of the main innovators on the early learning scene in Ghana, employ very different approaches in the use of play-based methodology. For example, whereas one stresses on the use of the mother tongue to teach the learners at the early grade level, the other emphasizes the use of English in teaching early learners. There is therefore an urgent need for a clear policy direction or a rethink of the existing policies on the scope of operation of these innovators. A teacher in the Akuapem South district had this to say about training on play-based learning.

Yes. I will say we have. Sabre Education trained us. We have what we call the T-tel, they are also taking us through a series of training..... and E-Learning, that came some time back and has now left. Apart from these, for the past five (5) years, we have had a number of interventions going on (KII with Headteacher, Akuapem South)

Like the knowledge on play-based learning, participants generally displayed a good knowledge about play-based pedagogies with the majority citing some of the pedagogies used. Teachers across both the intervention and non-intervention districts of the two regions had good knowledge of the pedagogies employed in play-based approaches, even when they were not employed. For instance, a teacher in the Kumbungu district when asked about his view on play-based pedagogies stated as follows –Play-based pedagogy deals with using games in teaching the learners, such as role play, dramatization (KII with Teacher, Namdu AME Zion, Kumbungu District). Another participant in the Akuapem South district, an intervention district, in sharing thoughts on play-based pedagogies stated, —*they include story*

sharing, rhymes, singing and dancing and then using activities. Like activity based lessons like using more teaching and learning materials that the children can manipulate so that as they play with them, they're also learning^{||} (KII with Teacher, Akwakupong Methodist, Akuapem South)

Overall, some of the pedagogies mentioned were role play, jolly phonics, dramatization, think-pair share, Know-want-to-know learn (KWL), rhymes, stories, songs, local games and other approaches such as nature walks. Even though the participants generally displayed a good knowledge of the pedagogies, with the KWL approach, the responses across the participants, that is, from both the Eastern and Northern Regions, intervention and non-intervention districts showed that the participants had little to no knowledge of this strategy. The majority of the participants had not the faintest idea about the approach and out of those who answered in the affirmative as having knowledge of and using the method, many still did not seem to have the knowledge they claimed to have (the responses given confirm participants lack of knowledge about the strategy as some thought the method referred to learners being initiators of what they wanted to study, while others thought it was about the application of knowledge gained from home to academic work). Only a few of them indeed had knowledge about the strategy, and these were not limited to the intervention districts but were also found in the non-intervention districts. Below are a few excerpts.

First those with no knowledge of the strategy.

No I have not heard of play based approaches (KII with Teacher, Suhum)

I don't have any idea what it is about (KII with Teacher, Akuapem South)

No I don't know anything about it (KII with Teacher, Kumbungu)

No because I have not received much training about this approach (KII with Teacher, Yendi)

No, I don't use that method. I don't know what it is (KII with Teacher, Yilo Krobo)

A varying view of responses came from those with inappropriate knowledge about the KWL strategy. The excerpts below are an attestation to this.

What I know about that method is that students apply the knowledge they already know from the house (KII with Teacher, Akuapem South)

It's when learners decide what they want to learn instead of the teacher initiating the lesson. So in this approach, the learners and not the teachers are the initiators of the lesson (KII with Teacher, Akuapem South)

There were, however, a few responses that suggested a positive knowledge of the KWL strategy. For instance, a participant asserted —Yes, it's just like RPK.... I build on the previous lessons taught to introduce new concepts. (KII with Teacher, Suhum). Another teacher added that —I sometimes use KWL. I introduce the topic and then I ask the pupils some questions about it, maybe things they already know about the topic. If the learners can say it, then I use my explanation to back it up or add to what they have already said. Finally, I make it clear to them and at the end, evaluate to see if they have really learned something from the topic. (KII with Teacher, Kumbungu).

Training

The manner in which they acquired their knowledge/understanding of play-based learning is however varied and depends mainly on the district in question (whether it is an intervention or non-intervention district). Some teachers in the non-intervention districts acquired their knowledge from other providers (JICA, USAID/FHI 360 etc), teacher training colleges and even their peers who had attended some of the trainings organized by the innovator in other districts. Interestingly, even among these disparities or differences, the responses are quite nuanced. Whereas in the intervention districts, the participants had received training from the identified innovators in those districts (Sabre in Eastern Region and Right To Play in Northern Region), and a number of other innovators, participants in the non-intervention districts mainly relied on training received as part of their formal education at their respective Colleges of Education or as part of the training workshops organized by the Ghana Education Service (GES) during the sensitization of teachers at the introduction of the Standard based Curriculum, School-based in-service trainings and from a few other innovators. This very important variable significantly impacts their knowledge of play-based and the type of approach or pedagogy employed. This is, however, discussed in detail under the attitude to play-based learning. In the intervention districts in the Eastern Region, the responses garnered pertaining to the training of the participants on play-based learning were mainly as follows.

They have been trained but it is not enough. Sabre has been here to teach my teachers how to use play-based approaches in teaching (KII with Headteacher, Akuapem South, intervention district).

Yes, Sabre Education. The training was on play-based learning. We were taken through how to facilitate indoor and outdoor activities (KII with Headteacher, Akuapem South).

Yes, it was on —Building Teachers Capacity To Better Understand The Play-based Approach ". We also attended workshops organized by jolly phonics and several workshops organized by Sabre.... (KII with Teacher, Akuapem South).

Yes I will say we have. Sabre Education trained us. We have what we call the T-Tell, they are also taking us through a series of training.... And E-learning, that came some time back and has now left. Apart from these, for the past five (5) years, we have had a number of interventions going on (KII with Headteacher, Akuapem South).

Yes, I think Sabre, thrice or four times.... It was on TLM preparation, we prepared so many TLMs and also did peer teaching (KII with Teacher, New Juaben).

As already mentioned in the preceding section, the responses from the non-intervention districts recorded a different trend from the excerpts above. The participants in the non-intervention districts in the Eastern Region when asked about training on play-based learning indicated that they received training from sources other than Sabre. The excerpts below give a glimpse of the answers given.

We've had no training in play-based approaches, rather, the training we had in College which speaks volumes on involving learners during teaching to make it easy for them to understand is what we employ (KII Headteacher, Suhum). Yes, the Learning Programme. When we go for workshops, they introduce us to games since the pupils are kids and they'll be interested in games.... (KII with Teacher, Suhum).

Yes, the USAID organizes a programme called Learning.... The facilitators taught play-activities such as rhymes and songs..... the major focus of that programme was early grade reading and this is one of their books.... (KII with Headteacher, Yilo Krobo).

There was a training from the Early Childhood Coordinator in 2020 on integrated approaches to teaching and the need for the children to be taught outside the classroom..... However, play-based learning was not mentioned (KII with Headteacher, Yilo Krobo).

There was a five (5) day training organized for the teachers when the new curriculum was rolled out and they were taught all the various methods based on the new curriculum and the play-based method was included. Also, the early childhood teachers were invited to a day's workshop organized by the GES sometime in the last term. The training was about how to handle kindergarten students and the use of jolly phonics books for teaching.... (KII with Headteacher, Yilo Krobo).

The responses from the Northern Region, however, were quite different. The responses showed a reversal of the outcome in the Eastern Region and this ought to be investigated in the quantitative phase of the data collection exercise. In the northern region, the intervention districts received most of their training from their Colleges of Education period or during inservice training on the standard based curriculum provided by the District Education Office on play based pedagogy.

Further, whereas the majority of the responses from the intervention schools indicated that the participants had received little or no training on play-based learning, many of those who had received training credited their training to other sources other than the identified innovator in the district (Right to Play). For instance, participants from a school in the intervention district in Kumbungu stated that they had not benefited from the training programme of Right To Play because they were not part of the beneficiary schools.

Quite surprisingly, the schools in the non-intervention districts claimed to have been beneficiaries of the training of the innovator as some asserted that their training was by Right to Play. However, the feedback from Right to Play suggests that they have not been to those districts.

It is difficult to explain why the responses of participants are contrary to available literature and the trend of responses from the Eastern Region. However, a possible explanation is the transfer of teachers from intervention districts to non-intervention districts and vice-versa. Other possible explanations are the numerous in-service training by GES and School-based training on the pedagogy, as well as the presence of other innovators educating teachers in play-based pedagogy in the non-intervention districts. A few of the excerpts by participants in the Northern Region are displayed below. First for the intervention schools followed by the non-intervention schools. No, my school was not part of the training, but I learnt about play-based approaches from my colleague teachers who have received training on that and I am using some of their pedagogies in my class (KII with Teacher, Kumbungu).

No, I did not have any special training in play-based approaches except what I learnt in my College of Education. If I have the opportunity to attend their training, I would inculcate it in my lessons..... (KII with Teacher, Kumbungu).

I haven't had any training since college. I look for materials from the internet with my phone (KII with Teacher, Kumbungu).

Yes, some of the teachers had training in play-based approaches during the National Common Core Curricular Training. I think the training has given them some skills and knowledge in play-based learning (KII with Teacher, Kumbungu).

Some of my teachers haven't had any training in play-based approaches. This is because our school is not part of the schools Right To Play works with. However, during the new curriculum training, teachers had a bit of training on using play in their lessons (KII with Headteacher, Kumbungu).

The responses from the schools in the non-intervention districts of the Northern Region are depicted by these excerpts:

Yes, I had training on play-based and it was about using songs to get children interested in lessons and to promote special needs, that is, to pay much attention to them and guide them in all activities (KII with Teacher, Yendi).

Yes, the KG teacher had training on play-based approaches which was organized by School for Life and Right to Play. The training was jointly organized by the two (2) organizations for all the early grade teachers in my school. The training was about using play-based approaches (KII with Headteacher, Mion).

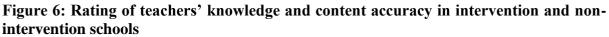
Yes, with Right to Play. The training was about how to use games and other activities to help children learn, including how to use RCA, that is, Reflect, Connect and Apply questions. We also learnt about the environment, I have forgotten how they titled it but it was learning in a safe environment (KII with Teacher, Mion).

However, some few responses in the non-intervention districts in the northern region affirmed the findings of existing literature on non-intervention districts having little to no training on play-based pedagogy and recorded the following:

I have not been trained on play-based approaches (KII with Teacher, Mion)

Not yet, the opportunity has not yet presented itself to me that is why I have not had any training in play-based approaches. I was teaching at the upper primary class in my former school, it has only been a year since I started teaching at the lower primary (KII with Teacher, Mion). Figure 6 shows that 61.3% of the results show that there is clear evidence that teachers in intervention schools in the Northern region understand the topic and/or concepts and thus offer appropriate explanations to average students compared to the non-intervention schools. In the Eastern region, the results reveal that 61.3% of teachers in intervention schools demonstrate a clear understanding of the topic and concepts, including explanations, questions and answers appropriate to the range of abilities of students in the class compared to 40% in non-intervention schools.





4.3.3 Attitude towards play-based learning and play-based pedagogies

The attitude of the participants towards play-based learning is gleaned from their usage or non-usage of the various approaches or pedagogies and the impact the training had especially on Gender, Social and Physical inclusion, and children with Special Educational Needs.

Figure 7 shows that 32.3% of teachers in intervention schools in the Northern region give supportive feedback to pupils who make a wrong response and use the response to promote better understanding compared to the non-intervention schools (20.0%). In the Easter region, half of the teachers in the intervention schools offer feedback to students' responses that promote active and mutual learning among students compared to 35.7% of teachers in the non-intervention schools.

Figure 7: Rating of teachers' feedback to pupil in intervention and non-intervention schools



4.3.4 Usage of play-based pedagogies

In respect of the usage of the various pedagogies or approaches, the responses gathered differed depending on the type of district in question. One important observation across all the districts were that majority of the study's participants had a good knowledge about the various play-based pedagogies identified by the study. However, the point of departure between the intervention and the non-intervention schools was the usage of the strategies in teaching.

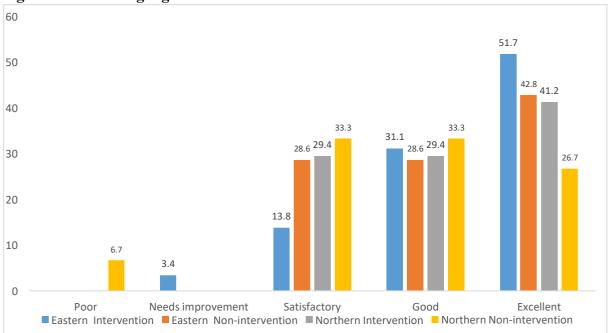


Figure 8: Use of language of instruction

Figure 8 shows that in the Northern region, 29.4% and 33.3% of teachers in intervention schools and non-intervention schools respectively, use appropriate language for different

learners. Compared to the Eastern region, a little over half of teachers in intervention schools (51.7%) select and adjust language in accordance with the understanding of each learner.

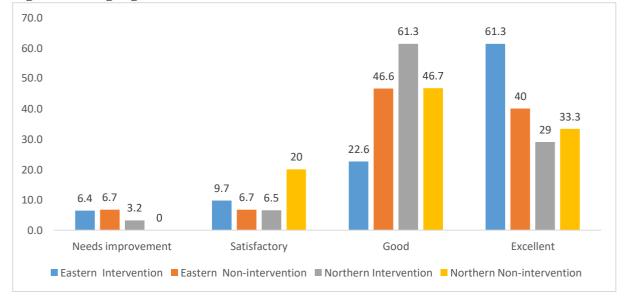


Figure 9: Language of instruction in classrooms in Ghana

Figure 9 shows that in the Eastern region, 61% of teachers in the intervention schools were rated excellent because they selected and/or adjusted appropriate language (mother tongue) in accordance with the understanding of each pupil compared with 29% of teachers in the Northern region. In the non-intervention schools across the two regions, there was a good rating (47%) of teachers, suggesting that teachers ensure that explanations are geared towards the language needs of different pupils.



Figure 10: Use of TLMs in Lesson

In the Northern region, the study found that 46.7% of teachers in non-intervention schools (Figure 10) do not use any TLM in lessons compared to the intervention schools where 36.7% of the teachers use TLMs which are stimulating and attractive for pupils to use them

actively. Whilst in the Eastern region, 42.9% of teachers do not use any TLM in lesson compared to the intervention schools where 29.0% of the teachers use TLMs (Figure 10), which are relevant to pupil's previous lesson/topic, daily life and readiness and makes pupils understand new concepts and solve problems through TLMs.

Whereas the majority of the schools in the intervention districts employed a blend of all or a greater number of the play-based pedagogies, particularly, the modern or sophisticated methods such as jolly phonics, think-pair-share, Know-Want-To-Know-Learn (KWL), the schools in the non-intervention districts mainly employed the basic or traditional methods such as rhymes, songs, stories, role play or dramatization. Additionally, the schools in the intervention districts mainly adopted and adapted the local games and employed them in their lessons. According to the findings, the various play-based pedagogies are used in teaching numeracy, to help the learners with addition and subtraction, in English, to help with pronunciation and word blending, in festivals, to better elaborate the histories being recounted to them, and in science, to give them an experiential meaning of the lesson. Some responses from participants in the intervention districts in the Northern and Eastern Regions are presented thus:

-Yes, I do. I use a number of play-based pedagogies when I am teaching. I use thinkpair share and as they are learners, role play and dramatization is also nice to them. I use jolly phonics when teaching English, I use letter cards, so they learn the syllabus and pronunciation of the words (KII with Teacher, Kumbungu)

-If I am to teach a topic on rhymes, I use a play that has rhymes. In numeracy, I use Ludo, it helps them to do addition and subtraction, I also use _Oware'. When teaching festivals, songs and plays are used. (KII with Teacher, Kumbungu)

--I use all the approaches including jolly phonics and role play. Okay there was a time I was teaching the letter _P'. Which sounds like /p/. So I made one learner come out like he was celebrating his birthday, we had some handmade cake which wasn't real, we put some candles on it and per the story, he was to blow the candles, so he did, as the other learners watched. We used this role play to teach them how to pronounce the letter _P' in phonics (KII with Teacher, New Juaben).

I use story sharing. I use more of the rhymes and songs, especially when teaching numbers, I use number songs so that they are able to learn the numbers through the songs (KII with Teacher, Akuapem South).

Sometimes I use role play. We sing songs and rhymes and then also, we go out of the class on nature walks (KII with Teacher, Akuapem South).

I sometimes use KWL. I introduce the topic and then I ask the pupils some questions about it, maybe things they already know about the topic. If the learners are able to say it, then I use my explanation to back it up or add to what they have already said. Finally, I make it clear to them and at the end, evaluate to see if they have really learned something from the topic (KII with Teacher, Kumbungu).

The responses from the schools in the non-intervention districts, as earlier mentioned, were very different from those in the intervention districts. Even though they know the various approaches of play-based learning, they mainly use the traditional methods such as role play,

story sharing, and rhymes. The more modern or sophisticated methods of jolly phonics, thinkpair share, KWL are hardly employed either because of the lack of or inadequate knowledge on their usage or the lack of accompanying TLRs. A few of the responses are as follows:

The approaches I normally use in my lessons are songs and sometimes games. I face so many challenges when using jolly phonics (KII with Teacher, Yendi)

No, I don't use KWL because I have not received much training about that approach (KII with teacher, Yendi)

I've heard about it (jolly phonics) but we don't currently employ it... but I've heard about it (KII with Teacher, Suhum)

I use role play, demonstrations, recitals, storytelling..... (KII with Teacher, Yilo Krobo)

Interestingly, the responses from some non-intervention schools in the Eastern Region depicted a different trend. These schools employed a medley of the modern or sophisticated and traditional or basic methods. A thorough look at the schools with these responses showed that they had benefited from the training of innovators like Learning by USAID and Jolly Phonics. The responses were as follows:

Yes we do. We use KWL, that is like the RPK.... I build on the previous lessons taught to introduce new lessons (KII with Teacher, Suhum)

I use role play, demonstrations, recitals, and storytelling. Yes we have been using jolly phonics... when we are teaching alphabets to blend the sound to make or form words (KII with Teacher, Yilo Krobo)

Yes, we use think-pair share. In our English lessons, we are required to give them an aspect of the conversation, ask them to think about it in groups and then come out with what they think about it. (KII with Teacher, Suhum)

As I mentioned earlier, the flashcard or word card game and a local game called —tumantul where the words are written in circles and the learner has to mention them..... and we also use Ludu (KII with Teacher, Suhum)

Figure 11 shows that teachers in Northern region introduce activities and students participate in it actively and with interest in the intervention schools (50%) compared to the non-intervention schools (20%). While in the Eastern region, teachers introduce activities that encourage students to apply new knowledge/concepts for their daily life (48.4%) compared to the non-intervention schools (26.7%).

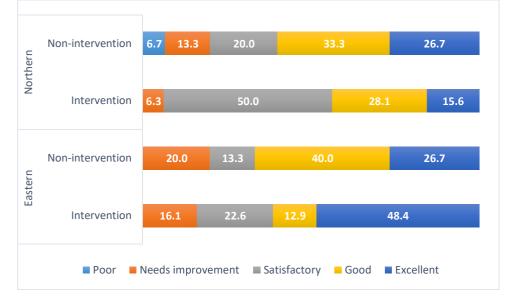


Figure 11: Rating of pupil's participation in intervention and non-intervention schools

4.3.5 Support offered to teachers to implement play-based learning

The support offered to the participants to facilitate the integration of played-based pedagogies into their lessons across the two (2) regions in the selected intervention and non-intervention districts were mainly in the form of provision of TLRs, provision of funds for TLRs, motivation (words of encouragement), school-based training/in-service training, and supervision. There was also direct assistance by parents/PTA and direct assistance by the district. These forms of assistance are applicable to both the intervention and non-intervention districts in both regions. However, the degree of the support offered represents the point of variance between the categories. Whereas the support appeared to be forthcoming in the intervention districts, there seems to be an inadequacy of this support in the non-intervention districts. There was however no marked difference between the kind of support offered in the intervention districts in the Eastern and Northern regions. The various indicators are briefly discussed below.

Provision of TLRs/funds for TLRs

Apart from a few responses to the effect that some innovators had given them TLRs for use in their lessons, majority of responses from both the intervention and non-intervention districts across the two (2) regions were in accord that TLRs were provided mainly by the headteachers, or out of government grants such as the capitation grant. Others were prepared by the teachers and headteachers after receiving training on the preparation of TLRs. These responses are reflected in the excerpts below.

I also help in preparation of the teaching and learning materials (KII with Headteacher, Korm MA, Yilo Krobo)

...... I also provide them with the necessary logistics that they need to support them teach with play-based approaches so that they can effectively apply these play-based pedagogies in their classrooms (KII with Headteacher, Sang Islamic, Mion)

I give them money from the capitation grant to get the necessary items for their TLMs even though the funds are not enough, thus financial support (KII with Headteacher, New Somanya Methodist, Yilo Krobo)

We try as much as possible to provide financial support and then materials that are more or less free that can be used for some of the various activities. Sacks, cardboard, and the others that we are able to get for free to try to help them.... (KII with Headteacher, Ellen White SDA New Juaben)

The support I offer is that during the preparation of capitation grants or GALOP we usually put some activities that will help us to buy some teaching aids to help teachers in their teaching (KII with Headteacher, Namdu AME Zion Kumbungu)

Also, I support them with TLRs. As you saw in the classroom, we have a lot of TLRs. The teachers come for money and some resources to prepare materials. In fact, whatever TLM you saw in the classroom were not purchased, they were designed by the teachers. Before the textbooks from the government came, I had bought each department some textbooks (KII with Headteacher, Konkronuru Methodist Akuapem South)

I sometimes need to use my own money for some of the things we use in the school such as teaching and learning materials (KII with Headteacher, Aburi Amanfo Akuapem South)

At times, we provide them with the necessary TLRs that we can afford. There are systems to make some TLRs (KII with Headteacher, Akwakupon Methodist, Akuapem South)

There are organizations that support teacher capacity in teaching with play-based pedagogies and some of these are JICA, learning which is supported by USAID and then Opportunity Education which came earlier than the others and brought us a lot of TLMs (KII with Teacher, Okroase MA, Suhum).

Motivation

Motivation was mainly offered by the headteacher. However, some parents in the FGDs also disclosed that they offer words of encouragement to the teachers to boost their morale to teach their wards well at school using play-based pedagogies.

... *He also encourages them to use play-based learning approaches during teaching and learning* (KII with Headteacher, Kpalkore Mion).

Supporting teachers through lesson observation during teaching and learning and offer professional advice to them where necessary (KII with Headteacher, Jimle AME Zion Mion)

I believe the way we talk to the teachers and relate with them goes a long way to impact the child's education..... I try to develop a cordial relationship with the teacher and to speak respectfully to her so that if there are any issues, we can resolve them amicably (FGD with Parent, Akwakupon Methodist, Akuapem South).

School based training/in-service training

Training on play-based approaches was also a common denominator across the participants in both the intervention and non-intervention districts in the two (2) regions as far as the support offered to teachers to implement play-based learning was concerned. However, whereas, the participants in the intervention schools mostly received training on the usage of play-based approaches from a combination of a host of sources including the identified innovators in

those districts (being Sabre and Right To Play) GES in-service trainings, School-based inservice training (PLC) and training received on the pedagogy as part of their formal education during their pre-service period, the participants in the non-intervention districts mostly received their training from either the Colleges of Education as part of their formal education, the GES sensitization on play-based learning during the roll out of the Standardbased Curriculum and from other innovators. This trend seems to be applicable to both the responses in the Eastern and Northern regions, but for the anomaly identified with the responses from the Northern Region on training between the intervention and nonintervention districts which is extensively discussed under the –knowledge of participants on play-based learning and play-based pedagogies. Below are excerpts confirming this fact, first for the intervention districts.

We have the coaching section where after lessons we meet to discuss the difficulty we meet during teaching and discuss new methods of play-based learning in the next lesson. We also meet for our PLC to discuss teachers' challenges (KII with Headteacher, Obosono MA Akuapem South).

Yes, Sabre education. The training was on play-based learning. We were taken through how to facilitate indoor and outdoor activities (KII with Headteacher, Aburi Presby _B' Akuapem South).

Yes, especially with Sabre, we've gone through a lot of training under the play-based approach. I remember going through a lot of workshops ... I think that's an example (KII with Headteacher, Ellen White SDA, New Juaben).

Yes, some of the teachers had training in play-based approaches during the national common core curricular training. I think the training has given them some skills and knowledge in play-based learning (KII with Headteacher, Limo DA, Kumbungu).

Yes. They have had such training. Some of them learnt it during the course of their training in the teacher training colleges. Others also attended training organized by Right to Play where they learnt it (KII with Headteacher, Dallun Fallaha Suweidiya Islamic Primary, Kumbungu).

GES in-service training and curriculum training which are mostly organized for teachers (KII with Headteacher, Dallun Fallaha Suweidiya Islamic School, Kumbungu).

Yes. It was on building the teachers' capacity to better understand the play-based approach. We also attended a workshop organized by jolly phonics and a number of workshops organized by Sabre. As for the workshops organized by Sabre, I have attended several of them and I have learnt a lot from them (KII with Teacher, Akwakupon Methodist, Akuapem South)

As indicated above, the support offered to the schools in the non-intervention districts in terms of training was quite limited and reduced to only a few players namely, the government, other innovators offering training in play-based learning including School For Life, Learning by USAID, and school-based training. Below are some excerpts of the responses in terms of training.

Yes, the KG teacher had training on play-based approaches which was organized by —School For Life^{II} and —Right to play^{II}. The training was jointly organized by these two organizations for all the early grade teachers in my school. The training was about using play-based approaches (KII with Headteacher, Sang Islamic, Mion).

We also have PLC every Wednesday to discuss our challenges (KII with Headteacher, New Somanya Methodist, Yilo Krobo).

Yes. The Learning Programmes, when we go for the workshops they introduce us to games since our pupils are kids and they'll be interested in games and they also tell us to look out for more games that will make our lessons interesting (KII with Teacher, Okroase MA, Suhum).

There was a five day workshop for the teachers when the new curriculum was rolled out and they were taught all the various methods based on the new curriculum and the play based method was involved. The early childhood teachers were invited to a day workshop organized by the Ghana Education Service some time ago within last term, the training was about how to handle the kindergarten students and the use of jolly books for teaching. The teachers have been having a series of workshops (KII with Headteacher, Somanya Presby, Yilo Krobo).

There is something called the Professional Learners Community (PLC), where we have meetings every Wednesday (2:00pm - 3:00pm) where every teacher brings their challenges to be discussed.... (KII with Headteacher, Somanya Presby, Yilo Krobo).

Yes, but I think it is not enough. The USAID organized a programme called Learning. They have had some but it is not enough, I will want a system where it should be a routine. The early grade teachers should be well versed in teaching so USAID organizes the Learning programme where the facilitators introduce some form of play into it that is why I said it is not enough (KII with Headteacher, Korm MA, Yilo Krobo).

As I mentioned earlier, we organize school-based in-service training to bring to light modern trends of teaching and learning and try to include technology in teaching such as using mobile phones and its applications (KII with Headteacher, Korm MA, Yilo Krobo)

Supervision

In both the intervention and non-intervention districts, the provision of effective supervision was another form of support offered to teachers to facilitate the use of play-based approaches among early learners. This was mainly undertaken by the headteachers of the various schools and the Early Childhood Education (ECE) Coordinators. However, there were indications that the School Improvement Support Officers (SISOs) and the District Director of Education seldomly performed this role. It was identified that supervision is one activity which cuts across both regions as this is done irrespective of the region in question. The following excerpts capture the views of the participants with regards to supervision.

I conduct monitoring and supervision every day to ensure that the teachers are doing the right thing and(KII with Headteacher, Sang Islamic, Mion)

Sometimes, I go round classes to monitor lessons in order to calm children who cry during play lessons (KII with Headteacher, Limo DA, Kumbungu)

I usually engage in monitoring when the pupils are doing play-based activities so that I can identify the non-serious or dormant pupils who are not seriously participating to encourage them to be serious with the play lesson...... I supervise and support teachers in the school to effectively use the knowledge and skills gained from the learnings" (KII with Headteacher, Dallun Fallaha Suweidiya, Kumbungu)

I support teachers through my monitoring and regular visits to the schools. After every workshop, I go round to check whether teachers are implementing what they have been taught and I also offer my support by helping them to make some learning centres and use local materials to make their own learning resources. I even sometimes gather some of these resources and bring them to the schools (KII with ECE Coordinator, Akuapem South)

Ooh normally we do visit the classrooms. We have our itinerary that we have drawn, just last two weeks we visited the KG classroom. So when we visit the classroom we observe lessons and look at the classroom setup We have indicators that we use, I can even give you one of the tool, based on the indicator the SISOs visit the classrooms, do most of observations, check the lesson note, check the centers ,the values for the day and whatever that goes on in the classrooms so at the end of the day there is going to be a discussion with the teacher and the feedback is given to the head teacher so that when there is any challenging or area of struggling the head teacher will be involved. The head teachers were part of the training and they are there to do coaching as well so that when there are any challenges, they go back to support the teachers in the classroom. We also have lead teachers in all the schools. In KG classroom, we have lead teachers over there so the lead teachers, they are very good when it comes to play based activities so if somebody is struggling the lead teacher can come in and support them in setting up the centers and preparation of TLMS and those things (KII with Assistant District Director of Education, New Juaben)

Direct assistance by parent/PTA

Some parents also admitted to offering support to the teachers to encourage play-based learning. The support was mainly in the form of logistics to facilitate the usage of the pedagogy such as TLRs and play items like football. However, some of the support was in the form of accommodation for teachers. The forms of support offered are seen in the excerpts below.

—We do support the teachers with some traditional items when they require them to teach. We also buy a few things like football for the school. I (FGD with Parents, Badaria EA Primary, Kumbungu).

—*The PTA built a bungalow for the teachers. We also provide teaching and learning materials so that teaching and learning can go on smoothly and we have employed a watchman for the school.* (FGD with Parent, Kunni EP, Yendi)

Direct assistance by officials from the district education service

The support offered by the district is given through the educational officials in the district such as the District Director of Education, School Improvement Support Officer (SISO's), and the Early Childhood Education (ECE) Coordinators. These are mainly in the form of monitoring and supervision, organizing workshops or training sessions, helping teachers to manage classes, helping teachers in TLR preparation and offering words of encouragement when needed. Below are some excerpts to buttress this.

-I support teachers through my monitoring and regular visits to the schools. After every workshop, I go round to check whether teachers are implementing what they have been taught and I also offer my support by helping them to make some learning centres and use local materials to make their own learning resources. I even sometimes gather some of these resources and bring them to the schools. (KII with ECE Coordinator, Akuapem South)

—We do meet at PLC meetings and organized workshops where we go through some of the methods in teaching the children and activities that will help the children to learn. I (KII with ECE Coordinator, Yilo Krobo)

-For the head teachers, I cannot put them together for training but when I go to their schools, I do tell them that teaching and learning in recent times is no more teachercentered where the teacher stands in front of the class to deliver. Rather, it is classroom-based learning, therefore teachers need lots of teaching and learning materials. So they should support teachers either in cash or in kind, so that they can have enough materials to teach for teaching and learning to be easier. I also sensitize them to make sure that teachers have a learner-centered classroom. (KII with ECE Coordinator, Suhum)

—..... I also tell them that, they need to be with the teachers to give them support because when you go to KG1 and you get about 30 to 40 learners, it is difficult to control them, you can tell them to do something and before you realize, some of them are doing a different thing or ruining themselves so we do advise head teachers to support them. We sometimes help teachers in the regard too especially when learners are put into groups, we go to different groups we help them too. (KII with SISO, Akuapem South)

—For now, we do organize in-service training but unless with support from an NGO. Without support from NGOs or sometimes from the education office, we can't organize an in-service training or workshop for the teachers, but as I earlier said, for now at least two or three NGOs are supporting us. I (KII with SISO, Akuapem South)

-Normally we do visit the classrooms. We have our itinerary that we have drawn just last two weeks we visited the KG classroom. So when we visit the classroom we observe lessons and look at the classroom setup we have indicators that we use I can even give you one of the tool based on the indicator the SISOs visit the classrooms, do most of observations, check the lesson note, check the centers, the values for the day and whatever that goes on in the classrooms so at the end of the day there is going to be a discussion with the teacher and the feedback is given to the head teacher so that when there is any challenging or area of struggling the head teacher will be involved. Because the head teachers were part of the training and they are there to do coaching as well so that when there are any challenges, they go back to support the teachers in the classroom. And also, we have leave teachers in all the schools in KG classroom we have lead teachers over there so the lead teachers, they are very good when we come to play based activities so if somebody is struggling the leave teacher can come in and support them they all help in setting up the centers and preparation of TLMS and those things.' (KII with Assistant District Director of Education, New Juaben)

4.3.6 Support received to implement play-based learning

The indicators for the support received by the participants in the two regions of Eastern and Northern region across both intervention and non-intervention districts include Training, comprising of formal and in-service training, motivation (words of encouragement), direct assistance by the district, play-based equipment received and provision of TLRs. These are briefly discussed below.

Training

A good majority of the participants mentioned having received training in play-based pedagogies as part of the support received in an effort to integrate play-based learning in their lessons. These training programmes were received from innovators such as Sabre, Right To Play, Jolly Phonics, T 2 E, T-tel and various in-service workshops organized by their Schools or GES in the intervention districts. In the non-intervention district, on the other hand, the schools received training on play-based pedagogy from innovators like JICA, Learning by USAID, School-based and GES in-service training or as part of their education in their Colleges of Education. The school-based in-service trainings or the Professional Learners Communities (PLC) as they are called were one of the main means in both the intervention and non-intervention districts of the Eastern and Northern Regions through which the teachers learned about play-based pedagogy because they are organized frequently throughout the school year (mostly on a weekly basis) and serve as a platform where the teachers learn about new approaches in play-based learning and discuss the challenges they face in their lessons.

—We have our coaching sections where after lessons we meet to discuss the difficulties we face during teaching and discuss new methods of play-based learning in the next lesson. We also meet for our PLC to discuss teachers' challenges (KII with Headteacher, Obosono MA, Akuapem South)

—Yes, we will be doing our PLC on that (play-based learning) and I will learn because some of us don't know how to use it. $\|$ (KII with Teacher, Ellen White SDA, New Juaben)

—*There is something called Professional Learners Community (PLC) where we have meetings every wednesday (2:00pm - 3:00pm) and every teacher brings their challenges to be discussed......*

A few of the participants however stated that they had received no training on the pedagogy because they were either teaching in the upper primary or the JHS level and had been transferred to the KG or lower primary level to teach the learners there or had been transferred from a different school to their current schools.

-Not yet, the opportunity has not yet presented itself to me that is why I have not had any training in play-based approaches. I was teaching at the upper primary class in my former school, it has only been a year since I started teaching at the lower primary.^{||} (KII with Teacher, Mion).

Provision of TLRs

TLR provision was another form of support mentioned by the respondent. These were received from the headteachers, innovators like Right To Play and Sabre in the intervention districts of Akuapem South and New Juaben in the Eastern Region and Tolon and Kumbungu districts in the Northern Region. In the non-intervention districts however, they were provided by the headteachers, parents or the PTA and NGOs or innovators like USAID's Learning programme.

—The Sabre Foundation helped us to use play-based activities in teaching the children. They also gave us some materials like pictures and words that we cut and used. We cut and paste the pictures given us on cardboards^{||} (KII with Teacher, Obosono MA Akuapem South)

-Right to Play helped us with lesson plan preparation and they also gave us resources like TLMs. They also help us with text books (KII with Teacher, Gbanjogla Primary, Tolon).

Motivation

Whereas available data on support offered indicates that the participants, namely the headteachers and teachers received words of encouragement from parents of learners, headteachers, SISOs and ECE Coordinators, there isn't much evidence to support this assertion at this stage as only one excerpt exists as yet in support of this. The excerpt is by a teacher in the Akuapem South district, an intervention district, and states that parents of the learners often shower the teachers with words of motivation. As the coding progresses however, there should be ample evidence to support this index.

—On the part of parents, they have become more active in participating in the school's activities where they tend to praise us with motivating words. (KII with Teacher, Aburi Presby B, Akuapem South)

Play-based equipment received

Available literature indicates that some schools received played-based equipment from some NGOs, for instance Zakoli R/C Primary School, a non-intervention School in Yendi, Northern Region, received see-saws, merry-go-round and other play-based equipment from Tuma Kavi, an NGO with support from CCFC. Also, according to the headteacher of Obosono MA School, an extremely deprived school in Obosono, a rural community without electricity in the Akuapem South district, the school received a merry-go-round, which is a solar powered device that generates electricity for the school as the student play on it from an NGO called Empower Playground.

Direct assistance by district

Even though available literature and findings from the responses of the district educational officials suggests that the participants received direct assistance in the form of training, assistance with class management, supervision etc from the district educational officials including the District Director of Education, the SISOs, the ECE Coordinators etc, apart from

the training, there is no evidence as yet to support the other claims. As the coding continues, there should be some evidence found to support these claims.

4.4 Gender and children inclusion with special educational needs

This section presents the results on gender inclusion and the inclusion of children with special education needs in the teaching and learning process.

Growing evidence has pointed out the importance of gender responsiveness in early childhood education. The role of the teacher in early childhood education and learning outcomes has always been made paramount in existing literature (Chi,2018). Teachers are therefore in a strategic position to influence and build the sense of self of learners with regards to gender stereotypes at the school level. And while this has been noted very little is geared towards the role of teachers in being gender aware and ensuring that their biases does not put constraints on the development of girls and boys and the exploration of their natural capabilities. Research has shown that gender stereotypes have been demonstrated by teachers at the classroom level and this has been key in building the foundation of children's ideas of self, capabilities and their socio-emotional skills. Learners' core competencies are developed as well as their cognitive skills developed when their early learning education is not bound by gender stereotypes. Ideally gender responsive pedagogy is key towards building the gender sensitive classroom as a means of achieving SDG goal 4 (inclusive, equitable and quality education). (Chi,2018).

4.4.1 Gender Inclusion

Knowledge on Gender Inclusion

Knowledge on gender inclusion was not only limited to the teachers and headteachers at the school level but also reflected at the district office level. A few officials at some district education offices displayed good levels of knowledge and perceptions about gender and inclusion. The following excerpts are indications of this finding.

-Yes, social inclusion is a matter of concern because in the past girls were not encouraged to attend school but, in my district, this has changed and even if I go for monitoring, I go to tell the teachers children with disabilities should be involved in the teaching and learning so that they can also benefit. (Tolon, District Director, Intervention)

-Gender and Social inclusion issues are really critical area of concern to me. I encourage stakeholders, parents and chiefs, religious leaders, opinion leaders, to send both girl and boy child to schools. They are also frequently educated to send both their able and disabled children to school and support their education equally without preferential treatments. (Yendi, District Director, Nonintervention)

Across the intervention schools visited, a good number of teachers displayed some level of knowledge on gender inclusion. This knowledge was predominantly linked to programs by the interventions. There were very few times when gender inclusion knowledge was attributed to the training received from the government either from INSETs or training workshops on the new standard-based curriculum. These training were received by both intervention and non-intervention schools.

-I once had training on Special Education that was organized by the District Education Office on how to handle both sexes during lesson delivery. I got to know how to handle each of the pupils based on their abilities. I have had training on *gender and inclusion by the special education division* (Akwapim South, Akwakupon Methodist, Teacher, Intervention).

They had training from the district's girl child coordinator. I have seen changes in how my teachers teach because more attention has been drawn to the girls on how to help them develop their potential, personal hygiene among others (KII with Headteacher, Yilo Krobo).

"Yes, as for gender inclusion we have had training on it. It is done every two weeks through school based in-service training. I have a curriculum lead and myself with my little studies in psychology we try to take teachers through because the issue of teenage pregnancy is a major problem here. As we speak now, about two or three students are pregnant and some have dropped out of school and some are still in so we do that to reduce the stigma and to encourage them for instance last BECE candidates we had two or three adolescent mothers" (KII with Headteacher, Yilo Krobo)

Responses from teachers across various intervention districts affirm this finding. There were some instances where teachers in non-intervention schools who indicated a lack of training on gender and inclusion yet had good knowledge and understanding of it.

-No. I have not had any training on gender and inclusion but I have a little knowledge on gender and inclusion. This is involving both genders in play-based activities. For example if you are doing racing you mix both the boys and girls for them not to feel that, the boys are superior over the girls or the girls are superior over the boys (Mion, AME Zion, Teacher, Non-Intervention).

Again this knowledge may be due to training provided by other existing programs being implemented in the non intervention districts outside of the selected programs for this study. An example is seen in the response of a district Director of a non intervention district.

-Yes, they have had training on gender and inclusive education. The training was about giving boys and girls in our education system fair and equal and proportional support to education: inclusive on their hand, is able to allow both the able and the disabled learner equal treatment and put together in the same classrooms to receive good quality education. (Yendi, District Director, Nonintervention)

Gender training

Embedded within the modules of the 2 innovators used for this study are aspects of gender and inclusion. Both Right to Play in the Northern region and Sabre Education in the Eastern region offer some training on gender as affirmed by some teachers. However, there were some teachers who despite having received training from the interventions made no mention of being trained in gender and inclusion. This was seen across both the northern and eastern regions in intervention districts of both Sabre Education and Right To Play.Teachers when asked about training on gender sensitivity responded as below

—No training on gender and inclusion in my school. (Kumbungu, Dallun Fallahia, Teacher, intervention)

—No please. Apart from the T to E and NTC, I have not had any training in gender and inclusion $\|$ (New Juaben, Okomeso MA, Teacher, Intervention)

Notwithstanding this, majority of the teachers in intervention schools indicated that they had received some form of training on gender and inclusion issues. This training touched on different aspect of GESI including the importance of gender sensitivity in classroom pedagogy. This gender sensitivity pedagogy training included building teacher's capacity to ensure that learners of both genders are equally engaged throughout the lesson while addressing the specific learning needs of both boys and girls. Some teachers affirmed this by saying:

Box 15:

-Yes. The training was based on what a teacher must know in teaching to involve learners to ease teaching. I learned this during the Right to play training in play-based learning. Teaching and learning is now gender balance.... (Kumbungu, Dinyo Kpaligu, Teacher, Intervention)

Yes, I have had training on gender and inclusion. The training was about how to include both sex (boys and girls) in teaching and learning process, and the roles assigned to them. (Kumbungu, Badaria EA, Teacher, Intervention)

Yes, we received knowledge that we should make both genders important. So, we should not concentrate on male children and ignore female children. So, I always engage both sexes when am teaching. (Kumbungu, Namdu AME, Teacher, Intervention)

Yes, the training was organized by Right to play and NGO operating in this district and other districts and this school is lucky to be part of their intervention of play-based learning and also emphasizing on gender inclusion. They provided us with some games, play books etc. All these are impacting on their teaching early graders.

For most teachers in the intervention schools in the Eastern region, there was a lot of attribution of their training on gender to the GES, PLC and other programs rather than the intervention of Sabre Education.

"Yes. I had the training from GES in our school here, it is done during PLC, and we talk about gender" (Akwapim South, Aburi Amanfo, Teacher, Intervention).

"Yes. T2E training includes issues on gender and inclusion. Teachers includes all pupils in all activities equally." (New Juaben South, Koforidua MA, Headteaxcher, intervention)

The training received also made teachers aware of existing gender biases they may have and how this should be refined as they employ play-based learning. The training they received also placed emphasis on bringing parents in and creating awareness amongst them of gender equity issues. A teacher shared their experience by saying.

—...Yes. That was our first training with Right to Play. I forgot I couldn't mention that. It was on gender bias. We learnt about gender equity and gender equality. So, with that, we were told how we are going to behave towards our learners. And how we should explain to parents about gender equality and gender equity and the learners themselves... (Tolon, Fehini AME Zion, Teacher, Northern)

4.4.2 Impact of Gender and Inclusion training

Long-standing prejudices and discriminations based on gender have seen a significant reduction, with entrenched taboos and traditions in some communities overlooked in the educational system. For instance, many of the schools now openly admit children with SEN and the teachers are more embracing of such learners, additionally, girls and boys are treated equally and given equal opportunities in class. These changes cut across the intervention and non-intervention districts in both regions. Each of these categories had received some form of education on gender, whether from the identified innovators of these districts, other innovators or even the government through GES. It appears however that the identified innovators in the intervention districts being Sabre for the Eastern Region and Right to Play in the Northern Region laid paid better emphasis on to the education on this aspect of the training as a result, almost all of the schools in the intervention districts had received extensive training on the topic. Below are some excerpts attesting to the changes in attitude.

"They elaborate on equality telling the learners not to feel inferior to their colleagues be it boy or a girl in any setting they find themselves, and also, they teach taking into consideration the fast learners, slow learners etc. hence we give attention to slow learners to come on the same page with the fast learners by giving them the platform to respond to questions. The sitting is always a boy and girl at a desk likewise in activities (KII with Headteacher, New Juaben).

"They integrate this learning approach into their learning by engaging all genders, even distributing all questions to them during the teaching and learning process, ensuring to involve all students in the class of both genders^{||} (KII with Headteacher, Kumbungu).

"The teachers don't discriminate in their classrooms, they attend to each child as an individual and offer each child the needed assistance to enable them achieve or perform to the best in class. The teachers try to put every child where he/she belongs. Notwithstanding the gender, physical and social status of the child (KII with Headteacher, Akuapem South).

"And also changes for early grades, for instance there is this notion that the kindergarten is only to be handled by women but that has changed partly because the female personnel are not enough so you will say the kindergarten is not going to be taught because there are no female teachers. Now the men have also been trained so the early childhood is not for only female teachers but the males can equally teach — (KII with Headteacher, Yilo Krobo).

For sure, for instance the issue of menstruation, some girls would either not come to school the whole week or even two weeks when they are menstruating so after those trainings male teachers are bold enough to discuss issues of adolescence (KII with Headteacher, Yilo Krobo)

They learn to identify with the opposite sex. In the Krobo society there are certain things that are taboos. For example, a male student and a female student are not supposed to sit on the same dual desk but it has changed now (KII with Headteacher, Yilo Krobo).

Gender sensitivity of teachers in intervention and non-intervention schools' rating



Figure 11 shows that 61.8% of teachers in intervention schools treat boys and girls equally and encourage both to succeed compared to the non-intervention schools (38.5%) in Northern region, suggesting a vast difference. In the Eastern region, 43.3% of teachers in intervention schools are gender neutral in terms of use of TLMs, lesson content and teacher's language as well ensure that students are catered for according to learning needs.

Box 14: Excerpts of use of demonstrations in intervention and non-intervention schools

-Cleaning the black board is done by all irrespective of their sex. Inclusive classroom talks about both sex involvements in class activities. Doing self-test helps me to ensure that, participation of both the boys and girls. I do not say to my learners that a particular play is done by boys only and so girls will not take part. All learners are involved in all activities of the classroom. I also share roles in class. I throw questions to both boys and girls

—…

In my classroom, when we are going an activity, I involve both boys and girls by giving all of them to bring out their ideas.

-Previously we may have had tasks that we would reserve for boys and those for girls. Perhaps you want someone to carry the chair and you call a male learner. But now the boys can be at the kitchen learning center cooking while the girls are the construction learning center. We now take into consideration their interest regardless of our traditional gender roles and this is a great change to our existing pedagogy

Gender sensitivity in classroom management

This training, according to the teachers, influenced their teaching strategies. For the teachers in the intervention schools who were on the receiving end of the training, they employ gender sensitivity in the classroom. This reflected in the way learners of both genders are engaged to participate in the lesson. Each child can share their ideas, thoughts and knowledge on all subjects irrespective of their gender. The following are evidence to this claim:

Yes, we received knowledge that we should make both genders important. So, in class we should not concentrate on and ignoring female children. So, I always engage both sexes when I am teaching^{||} (Kumbungu, Namdu AME Zion, Teacher)

Yes. At first it was very difficult if you throw a question to the class. Before I had the training on gender and inclusion, what I did was that I will just throw a question to learners and if learners raised their hands, I will just be selecting without giving equal opportunities to boys and girls to answer questions (Kumbungu, Dinyo Kpaligu, Teacher, Intervention)

Also, the knowledge I have gained in gender responsiveness has enlightened me to ensure that, both the boys and girls co-exist peacefully and partake in class activities. (Kumbungu, Badaria EA, Teacher, Intervention)

No gender roles in use of learning resources

For the existing norms where certain play materials are restricted to boys and some are to girls, this is not the case in some intervention schools. For most of the teachers in the intervention schools in the Eastern region all learners are allowed the opportunity to engage with all learning materials. Additionally, learners' relationship with both genders has improved according to teachers' observation. There is healthy interaction between both boys and girls in the classroom as a result of training received from play-based interventions. All play-based learning materials are used by all learners irrespective of their gender.

Adding play-based things are simpler as teachers and learners at the same time. Boys and girls interact with each other when we are playing, and play-materials are used by both sexes in my class. (Kumbungu, Namdu AME, Teacher)

Now, I have come to understand that both boys and girls should be given equal opportunities to succeed. So, I do not sack children when for example a girl goes to the construction center or a boy goes to the hairdressing center. (New Juaben South, St Dominic, Teacher, Intervention)

Equal distribution of roles at school

Literature posits that for pedagogy to be gender responsive teachers would ideally encourage equal participation among all learners both male and female as and to take it a step further, children with special education needs. This is demonstrated by teachers encouraging all learners to join in activities that may traditionally have been restricted to a particular gender due to existing stereotypes.

It is worth noting that even in some schools which have not received the intervention of the innovation and as such no training on GESI, teachers were found to be practicing gender sensitivity due their implementation of play-based learning. This is evidence of how multifaceted play-based learning is where it promotes and incorporates several 21st century competencies. It also shows that play-based methodologies in itself are gender sensitive and responsive in nature especially since the activities and games are often not gender specific. This is evidenced by quotes from teachers.

"I ensure that when using games to impact a lesson, I involve all the learners. Let's say, I want to teach them how to count numbers, if I decide to use –ampell, both boys

and girls will be playing the –ampell whilst counting the numbers. Likewise, if I am to teach with a song, I still ensure all learners both boys and girls, get involved. (Kumbungu, Badaria EA, Teacher, Intervention)

A visible trend noted amongst schools in the intervention study areas showed that teachers were more conscious of being gender sensitive beyond their classroom pedagogies. Thus, teachers were making efforts to ensure that the actions and decisions they made within the day-to-day operation of the school engaged learners of both genders. This is seen in the distribution of roles as indicated by some teachers interviewed:

Box 16:

-...Its impact contributed to giving equal participation to both boys and girls. By encouraging them in the case of girls there is nothing that is only for boys. Example the ringing of bells both boys and girls participate... (Kumbungu, Dinyo Kpaligu, Teacher, Intervention).

—I used to have a black board boy, but after my training on gender and inclusion, I now make all of the learners to take part in cleaning the board. It has a positive impact because learners are all attentive when teaching is ongoing as I can throw questions to all learners at any point in time (Kumbungu, Badaria EA, Teacher, Intervention)

When they are teaching and they want to put the children into groups, all gender is mixed in the groups for them to work together and also sit together. The discrimination between boys and girls has changed. The seating arrangements in the classes have also changed because both gender are mixed and sit on the same desk. Questions are also distributed among them equally (Kumbungu, Zugu-Kushibo, Teacher, Intervention)

4.4.2 Inclusion of children with special educational needs

The attitude of teachers in relation to gender, physical and social inclusion, especially in relation to children with Special Education Needs (SEN) has seen tremendous improvement across the districts. Both teachers and learners are now more embracing of children with SEN. From the class level lesson observation across both intervention and non-intervention schools, there was no reported discrimination by teachers towards boys and girls or SEN learners in classrooms observed. In intervention schools, majority of teachers were found to be accommodating to all learners present irrespective of gender or learning abilities. Teachers' relationship with learners could also be described as friendly and cordial and there was no evidence of corporal punishment being used in classrooms observed.

Improvement in knowledge on SEN

Findings have established that there were some forms of training on gender and inclusion for schools that benefited from the interventions. However, while there was not too much knowledge across most of the teachers in intervention schools about teaching children with SEN there were a few teachers who shared some knowledge of using Play Based Learning for children with SEN. This knowledge was also attributed to the training the education innovators provided.

_With little knowledge on special education, we can identify some of these children with SEN and advise them on the necessary steps to take. Through the Sabre training,

teachers have learned to treat all children the same and give them equal opportunities. (Kumbungu, Sanatani, Headteacher, Intervention)

Impact of Training received on interactions with learners with SEN

At the center of the interventions on play-based learning is inclusion to ensure that no child is left out of teaching and learning. In addition to the training provided by these innovators' interventions, the government has made some provisions for training on teaching learners with SEN. This training is handled by the Special Education (SpEd) Officer appointed by the GES in every district education office, A Headteacher attested to the efforts of the government in this regard as seen in the excerpt below

'The special education officer from GES came to train teachers in inclusive education but unfortunately, all the teachers trained have been transferred but the speed officer still goes around and I should think that the teachers I have currently have also received training on inclusion. And I have seen differences in the teaching of teachers. Teachers now have developed love and affection for a SEN child I admitted to class 4. The other children have started liking him, it wasn't the case before the training, they were complaining that I should expel the child" (KII with Headteacher, New Juaben)

"Very few classes in schools visited had learners with SEN. While there may have been a few present in the schools visited it was impossible for teachers without medical expertise to identify them especially if their special educational need or disability was not physical. However teachers still assisted in identifying learners with SEN who had physical disabilities and a few of those they noted may have some intellectual difficulties as compared to their peers. — (Akuapem South, SISO, Intervention)

Teachers in intervention schools who had received some training on inclusion tried to pay a bit more attention to their learners with SEN. Sabre Education as part of its transformational Teacher Training encourages teachers to be mindful of learners with special and additional needs. Right to Play also upholds elements of inclusion of learners with SEN as expressed by a teacher sharing the impact of training received.

—What has been the changes in my teachers is that, now when you go and ask them if there's a special child in the class, they tell you. If you ask them what shows that the child is a special child? They can tell you that maybe when you talk the person cannot hear you well or maybe you could see that when the child writes, she's not writing the right thing. Where the child is far, they bring them closer and then we even tell them that those with hearing problems they should not be moving around when reading to them they should stand closer where the child can get access to. And then they have been doing it.

... Teaching has now become easy and interesting. And learners are willing to come to school every day. With boy and girls and pupils with SEN, the relationship is cordial... (Tolon, Fehini AME Zion, Teacher, Northern)

It was obvious that the training on gender has trickled down and contributed, to an extent, to their treatment of learners with special learning needs. These positive relations with learners with SEN was observed across schools in the Northern and Eastern regions.

—...We now have a lot of material to complement our teaching. I make sure the material I give to my girl with SEN has boldly written words... (New Juaben South, St Dominic, Teacher, Intervention)

—We have a lot of slow learners in the classroom here. Some are extra special so I always pair them with stronger children when it comes to activities so that they can also do remediation and support each other^{II}. (New Juaben, Koforidua MA, Teacher, Intervention)

By involving them in the lesson. Sometimes even their demeanor in class tells the teacher that the child is facing some challenge and requires some special attention. So if we're acting a play, you make sure that you include that child so that you can use that as a bridge to find out what the issues and also so that they don't feel left out (KII with Teacher Suhum)

It is important to note that in the Northern region region this positive relationship with learners with SEN was recorded in a non intervention school which had not received any training from the innovation of focus, RTP. This however may be due to the presence of other ECE interventions in that district or a spillover effect from teachers in the intervention district. The excerpt below from a non-intervention school shows a positive relation with learners with SEN.

Well, with learners of SEN, we encourage them to participate in any activity that we are doing. Sometimes we help them in some of the activities that they find it difficult to do. Or we encourage the others to relate with them during those activities (KII with Teacher, Yendi)

Improvement in acceptance of with learners with SEN

At the school level there are some indications of impact in the running and management of the school as seen in the enrolment of learners with SEN. Headteachers and teachers alike both shared that schools were now more welcoming of learners who had SEN as compared to the past. The excerpts below indicate this.

—The Sabre program has helped me a lot. Now I know of the things I didn't know earlier, and I am applying them in my classroom. At first when children with special needs come, we don't want to take them but now the Sabre workshop has made me know that we must take those children and help them $\|$ (New Juaben, Agavenya, Teacher, Intervention).

"Yeah, as for learners like I said earlier, when it comes to admission anybody can come around to enroll so we do not discriminate. We have currently one special child even at the KG section so everybody is allowed to come to school \parallel (KII with Headteacher, New Juaben)



Figure 12: Rating of teachers' sensitivity to diverse learner needs in intervention and non-intervention schools

Improvement in Lesson delivery

Teachers were observed in the northern region across intervention schools using the playbased methodology in addition to reporting having improved their lesson delivery. This they shared was having a positive impact on active participation of learners. Teachers interviewed reported that their —*lessons are also easy to facilitate and are easy to understand by learners*. In intervention districts (Kumbungu) inclusive teaching practices were observed during lesson delivery (asking a variety of learners/girls boys). Both boys and girls including SEN learners are now given equal opportunities in class to participate and exhibit their skills during lesson delivery.

4.5 Findings on Theme 2: Adaptation of curriculum to play-based methodology

Under this theme, the presentation seeks to show results on the standard based curriculum methodology, provisions made to ensure successful implementation of play-based learning, limiting factors in adapting to standard-based curriculum and ways of addressing the limiting factors in adapting to the standard-based curriculum.

4.5.1 Methodology of the standard-based curriculum

Generally, teachers, headteachers and other participants involved in this study demonstrated knowledge of the play-based approach to teaching and learning and stated that unlike the objective-based curriculum (old curriculum), the standard-based early grade curriculum (new curriculum) is learner-centered, emphasizes play-based approaches to learning and promotes creative learning.

On the emphasis of play-based approaches to learning as a curriculum methodology, typical comments are captured as follows:

They're saying that when teaching the children there shouldn't be teacher centeredness, the children should be involved. The way they can involve the children is by playing. It is emphasizing more on play based. The teachers should involve the children by playing with them. When the teacher uses a song to teach them, they easily remember what the teacher taught them (KII with Headteacher, Mion).

It emphasizes play-based learning because most of their activities are based on play. Even during the lessons, I incorporate circle time, sit around, and outdoor activities which in turn helps them in collaboration learning (KII with Teacher, Akuapem South).

Yes, it emphasizes on play because teaching and learning is now more outdoor play learning and even activities in the class have some components of play incorporated in them (KII with Headteacher, Kumbungu).

We were told that the students learn from what you involve them in when they involve themselves into something, especially let's assume you are to do a drama, me coming to stand in front of them to tell them about the drama is totally different from when you make them play the drama themselves. The child learns better than you coming to stand and tell the child the story (KII with Teacher, Mion).

The emphasis is on using play activities and involving the learners in these activities during your lessons for the pupils to enjoy playing whilst learning (KII with Teacher, Kumbungu).

Especially with the phonics, there are songs that accompany them. These come with actions that correspond with the words of the songs thus incorporating play. This is why the new curriculum is play-based (KII with Teacher, New Juabeng).

Probing further on the methodology of the standard-based curriculum, other participants commented that:

—It is to create conducive learning for learners. At first, learning was like chew and pour and also intimidation but this time, the children should be free, we should give them the chance to be creative so that they can work on their own, it shouldn't be chew and pour based, copy and pass and forget. This curriculum is more of activities and encourages learners to be more active! (KII with Teacher, Akuapem South).

—It emphasizes on learner-based learning and not teacher centered method of learning (KII with Headteacher, Kumbungu).

—It's mostly child centered. The child must be involved throughout the lesson such as discussions and groupings (KII with Teacher, Kumbungu).

—The new curriculum basically focuses on the learner. It is more learner-led. We don't lecture or spoon-feed them with the information. We must get the information from them! (KII with Teacher, New Juaben).

—It emphasizes more on the learner centered approach in teaching and learning (KII with Headteacher, Mion).

—*Child centered & play-based learning. Using play activities to teach your lessons and with that the child will be in the center of the teaching learning process* (KII with Teacher, Kumbungu).

The qualitative data implies that most teachers cited play-based learning, learner- centered approach, and activity-based learning as the methodology of the standard-based curriculum. It is worthy to note that teachers and headteachers in intervention and non-intervention districts within Northern and Eastern Regions expressed similar views on this as they all believed that the standard-based kindergarten curriculum plays much emphasis on play-based learning, learner-centered activities, and activity-based learning. According to the presented data, participants hold the view that the standard-based curriculum request for teachers to consider the developmental level of children they teach before they select teaching methods and teaching learning resources. Also, any strategy to be employed for lesson delivery among early graders should be play-based which motivate learners to actively participate in the process.

4.5.2 Provisions made to ensure successful implementation of play-based learning

Provisions made to ensure the successful implementation of play-based learning following the introduction of the standard-based kindergarten curriculum

This section explored the perspectives of participants from both Northern and Eastern Regions, intervention and non-intervention districts, urban, peri-urban, rural and extremely deprived areas on the provisions that have been made following the introduction of the standard-based kindergarten curriculum to ensure the successful implementation of play-based learning. The participants comprised early childhood teachers, headteachers of basic schools, early childhood education coordinators, and district education officers. Per their responses to the questions asked under this section, there have been few provisions made by stakeholders to ensure the effective implementation of play-based learning following with introduction of the standard-based curriculum. Content of the curriculum, provision of a few teaching and learning resources, and a few days of curriculum training were the few provisions mentioned with a good number of the participants indicating that no provisions have been made after the new curriculum introduction to facilitate the success of play-based learning among early graders.

Curriculum Content

According to the study participants in both regions, the contents of the standard-based kindergarten curriculum make it easier for teachers to teach with play-based learning. It could be identified from the responses that the curriculum has already specified the kind of teaching and learning materials that will suit every lesson, and it has suggested teacher-learner activities and instructional pedagogies that could be adopted by teachers when teaching. The curriculum is organized in such a way that teachers do not have challenges when writing their lesson notes and planning for a lesson because it has spelt out what to be done from the start of the lesson to when learners will be assessed.

Regarding the content of the curriculum, participants voiced the following:

"Yes, it does tell the kind of TLR's to use in teaching like you can use TV, videos and even IT tools like the Bluetooth when teaching phonics. Every lesson you teach, the curriculum tells the kind of TLR's to use. With the child-centeredness, the curriculum ensures that the lesson, the activities and everything is at the learner's level (KII with Teacher, Akuapem South).

—Lesson plan preparation is taken care of by the new curriculum. They have the starter which prepares the child's mind to be ready for learning and the main is the actual teaching and learning and what occurs after a lesson. Learning resources also are suggested in new curriculum to help implement play-based learning (KII with ECE Coordinator, Eastern Region).

—To ensure the implementation of the curriculum, it is designed with play-based activities so there is nothing you can do than to teach it. The curriculum again emphasis on some competences so if you don't use play-based there is no way you can teach them $\|$ (KII with District Director, Northern Region).

-The curriculum prescribes the type of textbooks to be used during the instructional process; it emphasizes the need for teachers to plan their lessons, and the need to execute their lessons using prescribed teaching/learning materials. Some of the topics are expected to be taught through play on the part of the learners|| (KII with District Director, Northern Region).

—When you look through the curriculum there are several activities which are there for children to follow, example, the learning centres and many more (KII with Teacher, Akuapem South).

The KG curriculum is designed in a way that children develop skills through collaboration, and this has been captured in the core objectives of the new curriculum such that teachers replicate it in the classroom for the children to develop skills (KII District Director, Northern Region).

-The inclusion of some of the songs and games in the curriculum has helped and promoted and ensure the successful implementations of play-based learning^{||} (KII with Teacher, Northern Region).

Provision of Teaching and Learning Resources

Few of the participants mentioned that they have been provided with the necessary teaching and learning resources specified by the new curriculum to assist them to teach well with play. Participants acknowledged that teaching without the presence of resources such as teachinglearning materials, textbooks, teachers' resource pack and others could deprive children of fully benefiting from the teaching and learning experience. From the data, teachers have access to few textbooks and some other teaching and learning resources.

-....the TLRs are provided by the school and also with support from grants from the government (KII with Headteacher, Suhum).

Teaching a subject like creative arts is very difficult but since a textbook has been provided with the new curriculum, it helps us to know what to teach in the class (KII with Teacher, Akuapem South).

There are some teaching and learning materials and textbooks. We use Ghana Learning Outcome Product (GALOP) funds to buy the teaching and learning materials (KII with Headteacher, Mion).

—yes, they have added the textbooks (KII with Headteacher, New Juaben).

Resource packs were brought and the availability of lesson plan on social media to guide teachers to effectively implement the new curriculum (KII with Headteacher, Yilo Krobo).

Resources that will help teachers in lesson delivery have been provided in resource pack. And some of the TLMs that should be used for lessons are in the curriculum as well as games that are supposed to be used for lessons (KII with Headteacher, Mion).

No Provisions

On the other hand, there was a section of participants, mostly teachers and headteachers in the Eastern region who articulated that there has not been any provision made by the relevant stakeholders to facilitate the teaching of play-based learning after the standard-based curriculum was implemented. Their responses were:

—....although they implemented it, no provisions were made (KII with Teacher, Suhum).

That is the issue, there is nothing like that. There are no textbooks so just have to go to the internet and download somethings. Always, you have to research to get information to do you expect him to get this information to teach the children. It's a problem (KII with Teacher, Yilo Krobo).

No idea on the provision as we were not given materials of the new curriculum to enable us study and understand its provisions (KII with Headteacher, Kumbungu).

-To me, the curriculum has not made any provision to make sure that the teaching with play is successful (KII with Headteacher, Akuapem South).

-It has not made any provisions. It was just recently that we received some textbooks, which was only one^{||} (KII with Teacher, Suhum).

With the demonstrated knowledge of the curriculum's methodology and admittance of the curriculum's focus on child-centeredness and play-based learning by participants, one would have thought that all teachers will automatically implement the curriculum and its methodology in their classes with so much ease and comfort. But that is not the case in most of the schools visited and according to the responses given by participants. Most teachers and

headteachers indicated that the standard-based curriculum's methodology is appropriate for children and would be exceptionally good if it is fully implemented but the necessary provisions that need to be made before and after its rollout to ensure successful implementation have not been met. They were expecting extensive pre-and post-curriculum training, textbooks, teachers' guide and other teaching-learning resources to be provided after the roll-out of the standard-based curriculum. The absence and inadequacy of these make it difficult to implement the curriculum and the play-based methodologies.

4.6 Findings on Theme 3: Existing innovations that support teacher capacity in implementing play-based learning

Across the intervention districts visited, teachers and headteachers had pointed out several innovations present in their schools. In the Eastern region the identified innovations included Sabre Education, Learning, T-tel, NALAP, E-learning, Translation to English (T2E), National Teaching Council (NTC), Professional Learning Community (PLC), USAID Learning, Jolly Phonics and volunteer teachers. In the Northern region the organizations that came up as providing play-based learning were Right to Play and Lively Minds. In the case of schools in non-intervention districts, they had much experience with volunteer teachers and other innovations provided at the school level such as the Professional Learning Community (PLC).

4.6.1 Education innovators in the early learning space and their values

These innovations bring on board new skills and train teachers on how to teach with playbased methods. The volunteer teachers help teachers control the class and reduce the workload of the main teachers.

Capacity Building

Education innovations were noted to provide capacity building training workshops on playbased learning for teachers in intervention schools. In the Northern region Right to Play held these trainings for teachers at the primary level while Sabre Education in the Eastern region offered training to teachers at both KG and lower primary levels.

—My perception with RTP is positive, they do organize capacity building training for our teachers who also return and teach the learners. This help teachers in the standard-based curriculum and also incorporate what they learnt in their lessons (Tolon, Nyankpal DA, Headteacher, Intervention)

While most of the teachers in the Right to play intervention schools admitted to having capacity building training on play-based learning implementation, some teachers lacked training because they were newly posted to their current schools. Teachers shared that innovations sought to improve their teaching methods with regards to classroom pedagogy for teachers in non-intervention schools. Any knowledge on play-based learning indicated that it was acquired from their COEs or their own studies. Lively Minds was also one of the innovations identified in the Northern region that offers training to parents and guardians to serve as volunteer teachers to teach in the L1 at the early grade levels.

Provision of learning materials

Another value portrayed by the education innovations was the provision of learning materials. In some classes the use of the innovations had provided innovative materials like

_Talking walls' and this was operational across several schools. These _Talking Wall' included posters and other play materials directly linked to topics from numeracy and literacy displayed on the walls in the classroom especially at the KG1 and KG2 level. All innovations that support play-based learning involve the use of stones, counters (Local), straws, cards, leaves etc. in the as play materials. This was very prominent in most schools in the Yendi district.

4.6.2 Volunteer Teachers

Findings regarding the concept of volunteer teachers were mixed across the different study areas. In some districts, teachers and headteachers have not had any personal experience with volunteer teachers; they just shared their general views about who a volunteer teacher is and how they could be of help.

The use of Volunteer Teachers

On the volunteer teacher model, teachers shared some knowledge by indicating that they are teachers who are not employed by GES but come from the community to support in teaching. Some of the volunteer teachers are SHS graduates in the community who have no financial support to go back to school. Thus, through volunteer teaching they are able to return to school and become professionally trained teachers.

Volunteer teachers were identified to give some form of support to trained teachers in their classrooms. They helped teachers to carry out various tasks during lessons. For instance,

—They support the teacher in teaching and can engage in some of the activities that teacher does in class. They are because they also help involve the children in all the play activities the teacher does such as dramatization, storytelling etc... (Akwapim South, Aburi Amanfo, Teacher, Intervention)

Volunteer teachers enhance children's learning capacity through the local dialect for effective understanding. The knowledge is applicable in all lesson delivery. In the Kumbungu district teachers explained that volunteer teachers are organized by the PTA. These teachers assist the teachers teaching in Dagbani.

—The volunteer teachers help impact knowledge into the young children. The volunteer teachers also help change the behavior of the children in a positive way. When trained teachers are not enough in a school, they help fill in those gaps^{II} (Kumbungu, Badaria EA, Teacher, Intervention).

4.6.3 Perceptions/opinions about the innovator's programme

Teachers enjoy play-based pedagogies

Teachers have come to enjoy the use of play-based pedagogies instead of the lecture method they were initially using. Teaching has been made easy since all children are involved and are given the opportunity to learn on their own. In the Eastern region teachers in intervention schools shared that Sabre's training for teachers has made teaching enjoyable. Children now understand concepts easily. Learning takes place with or without the presence of the teacher because of the materials that are pasted on the wall and kept at learning centres. However, teachers identified that using play-based learning involves a lot of physical activities making them tired after each day's work. Children, after playing, become weak and sleep in class often.

4.7 Findings on Theme 4: Impact, change and influence of education innovators

This section documents that the education innovators' programmes have significant impacts on students, teachers, and school communities, albeit at different scales and levels

4.7.1 Impact of the early learning play-based programme at school level

Teachers and headteachers who are mostly from the intervention districts explained that they have been privileged to receive support from several education innovators in the early learning space. Notable among them is Sabre Education in the Eastern region, Right to Play (RTP) and Lively Minds in the Northern Region. Others include United States Agency for International Development (USAID) learning, transforming teaching, and education. These innovators especially Sabre Ghana and Right to Play have improved the quality of play-based learning and early childhood education at large by building teacher's capacity to teach with play-based pedagogies and, providing teachers with teaching and learning resources (TLRs), development training, and training on gender and social inclusion. Presented below are responses from teachers and headteachers in the Northern and Eastern regions, intervention, and non-intervention districts, and urban, peri-urban, rural, and extremely deprived on the impacts of education innovators in the early learning space on play-based learning.

Capacity Building of Teachers on the Implementation of Play-based Learning

Participants expressed their views on how the training on play-based learning implementation by education innovators has positively contributed to the way they teach. Evidence gathered through the responses reveals that before the intervention of Sabre Education and Right to Play, most teachers in both intervention and non-intervention districts were used to teaching children with traditional methods which were more teacher centered, not placing emphasis on facilitating learning through child focus approaches and reliant on lecturing. However, after the training offered by the innovators in intervention districts, there have been changes in how teachers deliver lessons –used to talking alot…now they do not talk alot with children doing most of the activities. Most teachers in intervention schools as indicated in the responses have now received training on how to implement play-based learning using several play-based pedagogies such as jolly phonics, role play, songs, games, and other activitybased methods. They shared that the training has helped in making teaching better with regard to imparting the right kind of knowledge to the learners. Teachers now understand that learners at the early grade level learn better through play. This was the case in most of the intervention schools in both the Northern Region and Eastern Region. They indicated that:

—With pedagogy, previously it was the teacher lecturing but currently the teacher teaches hand in hand with the learners using the learning centres and the tabletop approach. So, as they are playing and are interacting through activities, they are working to learn new concepts being introduced (KII with Teacher, New Juabeng).

—The workshop has helped us to have confidence in teaching because you apply your TLRs, you know how to flow and the feedback you want from the children you know how to do it. You don't fumble or have doubts about what you are doing. It flows because you are having what you want the children to grasp. You have the theme and the TLRs that you should apply! (KII with Headteacher, Akuapem South).

—They have made a difference. As a result of the innovations teachers are able to use activity-based learning methodologies to whip the interest of children in the classroom (KII with Headteacher, Kumbungu).

-Even though first we used activities, but not as much as what Right to play people brought on board. There were certain activities that we were not using, but we do now. This nature walk, maybe think-pair-share and others, they are many. Right to play gave us the knowledge of those activities and their importance of it in the classroom. It also makes teaching and learning more easier (KII with Teacher, Mion).

RTP, great project. I only speak about *RTP* because they are the only agency that trains us and after attending, I come to also train my teachers on what I learnt (KII with Headteacher, Tolon).

-I don't have much knowledge about Sabre Foundation but the Right to play helps to improve classroom environment because it involves playing (KII with Teacher, Yendi).

—It has lessened our burdens, at first, we stand in front of the class and talk the whole day and you are exhausted. By this, you give them activities, you guide them and ask them to do them in groups, it will amaze you what they will complete. It tells us what children have in them and how we can help them (KII with Headteacher, Akuapem South).

—We are now more able to engage children in different varieties of activities like the circle time, registration phonics, outdoor group activity tabletop activity which are also from Sabre. Now this the self-registration, children are able to write names, their confidence and communication has also improved –(KII with Teacher, New Juabeng).

Play-based learning has proven to be one of the most effective teaching strategies used in teaching children at the early childhood education level. With its relevance, it is pertinent for every early grade teacher to first have knowledge on how to utilize it and have adequate training on how to use it in delivering lessons. What Sabre Education and Right to Play has been doing in the selected schools at the Eastern and Northern Regions is in the right direction as they are providing early childhood teachers with the requisite training on play-based learning implementation. This will put teachers in the best position to teach children using varied learner-centered strategies which will facilitate the holistic development of young children.

Curriculum training for early grade teachers

According to the responses from participants in intervention and non interventions districts at the Eastern region, teachers and headteachers received just a 3–5-day curriculum training by the Government of Ghana through the Ministry of Education and the Ghana Education Service. This training was described by participants as insufficient for them to effectively understand the curriculum and implement it. As described in the responses, intervention

districts in Eastern Region (Akuapem South and New Juabeng Districts) were fortunate enough to receive further intensive curriculum training from Sabre Education. The results suggest that Sabre exposed teachers to the essential features of the curriculum such as the competencies, learning domains, assessment practices, and pedagogies approaches. However, same cannot be said about teachers and headteachers in the non-intervention districts in Northern and Eastern regions since they did not get access to a further comprehensive curriculum training from the innovators after the government's curriculum training. This has a tendency of creating problems for teachers, headteachers and even the learners.

On the provision of curriculum training by education innovators, participants expressed the following views:

—When the new curriculum came into being Sabre Education held training to throw more light on the play-based aspect of the standard-based curriculum and it has been really helpfull (KII with Teacher, New Juabeng).

—Sabre bringing to light the details of the new curriculum helped to get the understanding of making the classroom more interactive. The 3 days' workshop held nationwide was not enough, so these interventions have made the play-based more practical to carry out at the classroom level (KII with Teacher, New Juabeng).

—When the new curriculum came, we did not know how to go about it but when Sabre came in, everything became okay for us. Because when we went for the new curriculum training, they said with the KG everything is integrated but the teachers did not know how to do it until Sabre came and explained everything to us (KII with Headteacher, Akuapem South).

Sabre bringing to light the details of new curriculum helped to get the understanding of making the classroom more interactive. The 3 days' workshop held nationwide was not enough, so these interventions have made the play based more practical to carry out at the classroom level (KII with Teacher, New Juabeng).

Teachers are implementers of educational policies such as a curriculum. Hence, once policy makers introduce new policies like what was done in 2019 when the standard-based curriculum (new curriculum) was introduced and teachers were asked to desist from using old curriculum, extensive training should be provided for teachers to understand the policy so as to implement it at schools.

Teachers were supposed to receive intensive training from the government through the Ministry of Education and Ghana Education Service on how to use the standard-based curriculum, but this did not happen. It is a pleasant news as Sabre Education among other training programs, provide teachers with curriculum training. According to teachers and headteachers, this has helped them to know what to teach and what to expect from learners.

Training of Teachers and Headteachers on the Preparation of Teaching and Learning Resources Programmes and training by the education innovators had many dimensions. One of them was providing teachers with training to be able to prepare teaching and learning resources and other play materials on their own. The collected data indicate that early childhood teachers in the intervention districts have received training on ways of preparing teaching and learning materials as part of the capacity building given by Sabre and Right to Play. Teachers received training on how they can use less costive materials usually found in the immediate environment for teaching and learning materials. Aside from schools receiving TLM donations from innovators, they were trained on how to develop some of them at their respective schools. This means that teachers will always be having enough materials available for every subject and lesson.

Teachers commented that they received some training on material development:

—Sabre gave teachers training on how to come up with their own teaching-learning resources using no or less costive materials so as part of the demands that we are supposed to give enough TLMs to make our class very rich so that when children see they wouldn't forget, early childhood teachers in my school develop their own materials of course with my support (KII with Headteacher, Akuapem South).

—When we went to Sabre, they made us do some of the TLRs over there and they have provided us with some of the materials over there (KII with Teacher, New Juabeng).

—We were taught by Sabre to use Manila cards and sachet water packaging which was less expensive (KII with Teacher, New Juabeng).

—Teachers acquired knowledge in the training and also applies them in their lessons. Their teaching strategies or methodologies are also improved. They have also learnt how to prepare or create TLMs using local materials (KII with Headteachers, Kumbungu).

-It is the training that taught us most of the TLRs and how to use them to teach. I am not saying we didn't know about TLRs, we didn't know how to use them in teaching. Before, you will go to a class and teachers have prepared TLRs because they've been asked to prepare but they will never use them. But the Sabre training, we saw that you go to the classroom and the teacher uses the TLR. For example, they have little little card they cut into pieces called the flash cards or the paper cards. During their teaching, it will be displayed on the table for children to do sorting. And then, Sabre also taught us something about remediation. That we don't allow at the end of the term that you grade and see that these pupils are good or bad, so they are to be repeated. It is a process so in the course of the teaching, you do what we call base assessment. They put all children on a level so that as they are going, they will be provided the needed assistance '(KII with Headteacher, Akuapem South). *—I can now create some of the teacher-learner materials on my own. And the students can also do that. Because when I learn from the workshops, I also come and teach them* (KII with Teacher, Tolon).

—What they taught us is what I am also doing small, small here. We use Voltic containers to make games work for us. Even the boxes of the Voltic can be used $\|$ (KII with Teacher, New Juabeng).

—Sometimes too security and safety become a challenge. Apart from the rainstorm, you know our classrooms do not have ceiling so we close and go home, and the smallish kids can pass through the top roof, enter the class, and steal the teaching learning materials. The last time, class one teacher prepared a turf/ a football pitch with the local materials, a very beautiful one. They left it in the class the next day they came, they were stolen. According to the teacher, this sometimes does not motivate her to prepare materials' (KII with Headteacher, Akuapem South).

This was evident in the classrooms of most schools in the intervention district. During lesson observations, it was identified that teachers employed several materials to support their teaching and children also had access to lots of resources for independent learning. However, some schools in rural and extremely deprived areas, in intervention schools, did not have access to many teaching and learning resources as teachers are not motivated to prepare these materials. Among their reasons, was the lack of ceilings and proper classroom doors which create security issues in the school. From the results, it could be seen that young learners and other members of the community steal the materials at night.

Capacity building for teachers and headteachers on the implementation of gender and social inclusion

Due to the programs of the educational innovators, early-grade teachers are now able to effectively include both gender and children with various Special Educational Needs (SEN) into educational activities. From the gathered data, it can be understood that teachers are now gender sensitive and constantly seek to ensure gender equity. Interestingly, participants from non-intervention districts in the Northern region indicated that claim they have received training from Right to Play on how to implement gender inclusion and ways to relate with children who have Special Educational Needs. The data suggests that teachers now understand that there is no specific role for a boy child or a girl child, but they can all work together to think and share ideas and be able to exhibit their talents and skills.

Participants shared some positive outcomes of such training. Typical responses include the following:

Those who are disabled can pay attention especially when they are in class and even look at what the teacher is doing practically when you are teaching with the machine^{||} (KII with Teacher, Mion).

I was trained that I should not separate the boys and girls in the classroom. Also, I should not let them go to the washroom in pairs such as a boy and girl together. Also,

when asking questions, I should ask both boys and girls in the classroom (KII with Teacher, Akuapem South).

Teachers are now able to resort to gender sensitive methods in teaching which recognizes the active participation of both boys and girls in the teaching and learning process (KII with Headteacher, Kumbungu).

The Sabre workshop has helped me know about this. At first, when they have special needs and they come, we don't want to take them, we will say go to this place but now the Sabre workshop has allowed me to know that if any person is with a special need we take them and then help them and they trained us on how to handle those children (KII with Teacher, New Juabeng).

Both boys and girls are now given equal opportunities to exhibit their potentials, the sitting arrangements in the classroom have change and even questions are distributed equally among boys and girls (KII with Headteacher, Tolon).

Now, they treat all the children equal, here we do not have the physically challenged pupils, but we have the intellectually challenged pupils. So, after teaching every week, we assess the children, those who did not get it, we do remedial teaching for them. It is part of the training that we went for. The teachers blend the boys and girls who difficulty in learning, they make them sit close to those who are good in the class (KII with Headteacher, Akuapem South).

Boys and Girls are now given equal task to exhibit their potential as the programme promote gender equality among pupils (KII with Headteacher, Yendi).

Boys and girls can now share a desk, be in the same group for an activity, engage in similar sporting activities and are presented with similar responsibilities. With the inclusion of children with special educational needs, teachers are now more sensitive to the needs of such children, hence in as much as they treat them equally, they strive to assist them to do better by providing extra opportunities to learn. The inclusive nature of lessons brings both girls and boys together to learn from each other.

Training of Headteachers in Providing Effective Supervision to Teachers

Headteachers of schools within intervention districts in both Eastern and Northern regions were not left out from the interventions provided by the education innovators' programme. They were sometimes trained together with the early grade teachers on how to teach children using play and activity-based strategies. This was to equip them with the same or similar knowledge teachers are gaining to enable them to appreciate the usage of play-based learning and be acquainted with what actually happens at early childhood classrooms. With this knowledge, headteachers were in the best position to provide training for new teachers and refresher training for teachers who received the training a while ago.

From the data, apart from the training given to headteachers on play-based learning implementation, they were provided with training by Sabre Education (Eastern Region) and Right to Play (Northern Region) on how to effectively supervise teaching and learning at the early childhood classrooms and provide mentorship and coaching to teachers when necessary. Headteachers cited that they now know what to look out for during the teaching and learning periods in early learning classrooms when they visit for supervision.

Headteachers' voices on the theme are captured as follows:

.....Great extent. Because when I go to class, I know what I am going to teach, if my teachers need assistance, I am able to guide them on how to use play-based methods in teaching (KII with Headteacher, Akuapem South).

I have been equipped through the series of workshops that has been organized and abreast with what play-based learning entails and so I am able to give counseling to my teacher when I visit their classes to observe where necessary. I have made my teachers aware that, we do not come for the observation to critique their work, but rather to assist for the benefit of the children (KII with Headteacher, Kumbungu).

You know, it really took me time to adjust to the primary way of doing and handling things. Honestly, after the training section I felt I was lost and wanted to leave or go back to teaching instead of being a head teacher (KII with Headteacher, New Juabeng).

They offered me the opportunity to learn mentorship and coaching skills so that I can supervise, guide mentor and coach my teachers regarding play-based learning pedagogies (KII with Headteacher, Kumbungu).

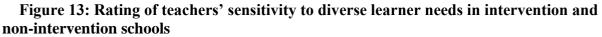
I am able to vet lesson notes and give feedback to teachers to include activities as part of their teaching methodologies. I am also able to encourage and support teachers to make their teaching more learner centred (KII with Headteacher, Kumbungu).

RTP have been very supportive, they coach and mentor us how to vert lesson notes to observe lesson delivery (KII with Headteacher, Tolon)

We were trained together with the teachers, and I learnt what they also learnt so when I go to a class, I know what to look out for in a lesson. This help me to put my teachers on their toes when they are not doing things right (KII with Headteacher, Akuapem South).

At first, when you go there to supervise, you do not know what to look for, but when Sabre came, they have a format that you can follow to do the supervision. At first, we used the phone, later they have brought us hard copy, it is a form we can use to assess and support the teachers. It is called coaching form (KII with Headteacher, Akuapem South. Headteachers are mandated by Ghana Education Service and Ministry of Education to serve as managers of their respective schools. They are required to provide all the necessary forms of assistance to teachers to help them function effectively. It was evident that now that headteachers have an appreciable knowledge on play-based learning and its relevance, they strive to assist their teachers in implementing play-based learning by coaching them, giving them constructive criticisms and providing them with the necessary logistics to work with.





4.7.2 Impact of innovators programme on child development

The programmes of Sabre Education and Right to Play have increased teachers' ability in implementing play-based learning, preparing TLRs, implementing gender and social inclusion. All of these, according to the participants, have resulted in the improvement of children's learning and changes in learner attitude towards school and learning.

According to the responses gathered from the interview data, teachers in intervention districts both at Northern and Eastern regions assert that children are now confident, creative, smart, active, sociable, and have increased vocabularies. They can now volunteer for any activity, ask questions, answer questions, and they demonstrate a high commitment to learning and schooling. This has led to an improvement in attendance. It is learnt from the data that learners are now enthusiastic about school attendance because learning has become more fun. This corroborates with the findings from the play-based interaction researchers had with early graders. Most learners from intervention districts were seen to be confident when they were asked to volunteer for various play activities and discussions. They were creative and to an extent, had mastery over activities and discussions they were engaged in. Among learners in non-intervention districts, children were rather seen to be a bit timid, and shy to answer questions or actively participate in a discussion. Researchers spent ample time engaging with them and building familiarity before they were seen to be responsive to whatever activity was presented. Evidence of these are captured as follows:

Some of the learners have become more confident. We have also discovered the abilities of some of the students especially in the creative aspect and student who are good when singing and when role-playing (KII with Teacher, Akuapem South).

Yes. It has improved children in my class because in my class learners who were not able to identify basic alphabets are able to do so because of the play-based learning which I learned from right to play (KII with Teacher, Kumbungu).

It facilitates the understanding of concepts among learners by engaging them in play alongside the lesson. For instance, pupils were taught how to do their bath. Materials needed for the activity were provided to illustrate how that was done (KII with Teacher, Akuapem South).

....at times when you sit down and say you want to ask questions, the way the children participate is very fantastic (KII with Teacher, New Juaben).

Children attends school more and concentrates more in class during teaching and learning because of the interest they have in the play activities teachers take them through (KII with Headteacher, Kumbungu).

It has made the pupils now very smart compared to before. This is because now there are more TLMs of which pupils are using them. Both boys and girls can now pronounce the letter sounds (KII with Teacher, Akuapem South)

It is working because children are now taken the centre stage regarding their *learning* (KII with Headteacher, Tolon).

It is helping learners in their academic performance and behaviour wise it is helping children to follow rules, for example, the need to raise your hand when you want to answer a question (KII with Headteacher, Akuapem South).

The focus of early childhood education is not only to assist children to excel academically or cognitively, but it is to nurture children in all domains of development. The aim is to train children who are socially fit, confident enough to stand out and active participant of the society they find themselves in. The expected outcome of the training given by innovators to teachers and headteachers on how to prepare teaching and learning resources, implement play-based learning and implement gender and social inclusion is to see learners develop holistically and from the data, it seems that is been achieved gradually.

Indicator Schools in intervention districts Schools in non-intervention districts

Familiarity with broad range of songs/ rhymes/ poems	traditional and as well new songs/rhymes and poems. Most of the songs/poems/rhymes they sang and recited are not known in a typical Ghanaian KG setting (eg; puff out the candles on the pink cake ppp ppp, puff out the candles on the pink cake; air air I can't see you, air air I can't touch you, air air I can't see you, but you're blowing everywhere; ants ants, on my arms, ants ants on my arms, ants ants on my arms are causing me alarm) They also demonstrated actions with the songs	shoulders, my knees, my toes; this is the way I brush my teeth among others; twinkle twinkle little stars) Teachers were not trained in any new content increasing their scope of songs and games)
Contributes to improvement of confidence levels of children	asked to volunteer to be part of this activity, learners were confident enough to volunteer without knowing what the task was. When asking questions to the children the children were able to	
Differences in command of the play activity and language competency	Learners had a higher degree of mastery over the activities they engaged in and children knew/ remembered all the lyrics to songs/rhymes/and poems they were exposed to.	Most learners did not know the lyrics and words to the songs and rhymes they sang and recited. They usually just hummed to the lyrics but could not sing the song fully. Interviewers usually spent time teaching such children the right words to songs and poems
Differences in Language usage / competency	Though it is advised that the language of instruction at the early grade level should be local language, children had strong command of both locals and were using English throughout the interaction.	Most learners were very comfortable with their local language and did not switch to English unless they were singing a song or reciting a rhyme/poem that is in English.

Source: From various field instruments.

4.7.4 Sustainability and scalability of the gains of the interventions

The evidence provided indicates that education innovators such as Sabre Education and Right to Play are contributing to the quality of early childhood education through building teachers' capacity on the implementation of play-based learning, providing curriculum training for teachers and headteachers, training teachers on how to prepare teaching and learning resources, and building teachers' and headteachers' capacity on the implementation of gender and social inclusion. Having identified these positive contributions, it will just be appropriate for relevant stakeholders to put measures in place to sustain the gains of the innovations and to be in a better position to scale it to other neighboring towns, districts, and regions. This could help all early-grade teachers and learners to benefit from the gains of the interventions. Participants shared their opinions on how to sustain the innovations in the district and what they have been able to do so far:

This programme for now is left on the shoulders of the ECE coordinator, SISOs and AD supervisors so we do supervise, observe and give direction to teachers on playbased learning. For me, I think the program should be extended to even the JHS level. We will be glad if we get a different NGO to train the teachers at the lower primary on how to make the classroom lovely while teaching the children. An intensive workshop to train lower primary teachers coupled with the availability of teachinglearning resources for those classes will help (KII with SISO, Akuapem South).

Sustainability is always an issue and one way we have tried to sustain the gains is the fact that we took headteachers through training as well, so, headteachers are in the school with their teachers so since we trained the headteachers as well, the headteacher will have the knowledge to support the teachers (KII with NGO Coordinator, Akuapem South).

That is why we are here to supervise to ensure that proper teaching and learning takes place (KII with SISO, Yilo Krobo).

We encourage GES to be doing monitoring and encourage teachers to use play-based learning as we also monitor and encourage them because teachers have received enough training to effectively use play-based learning in their teaching. We also encourage parents to support children and the school in using play-based learning (KII with NGO Facilitator, Kumbungu).

On the issue of scalability, participants provided ways they think play-based learning and other innovations can be scaled up in the districts and if possible, beyond;

For Sabre, we are actually into KG one and KG two. The headteachers can also think of some of the content areas that will be more appropriate for primary one up to three and even the J.H.S level can apply them. In one area like the behaviour management content, we have transition content which I think primary one to J.H.S can train on that (KII with NGO Coordinator, Akuapem South).

Right to Play has done very well. But they have not been able to cover all the schools in the district. The district GES lacks the funds to do that. So, if other organisations can come on board to support the schools that were not covered, it will help in scaling up play-based learning. Also, the government should collaborate with the *NGOs to scale up play-based learning in the schools so that it will go a long way to increase learning outcomes in the district* (KII with NGO Facilitator, Kumbungu).

Inference drawn from the data presented is that, the education innovators, teachers, headteachers and other district participants mostly from the intervention districts are all on the same page when it comes to the sustainability and scalability of the interventions. They believe that it is a major issue of concern because, the gains and positive impacts of the innovator's programmes cannot be allowed to diminish once the innovator complete and leave the district. Rather, these impactful benefits need to be prolonged, sustained and scaled up to reach other levels and districts.

So far, as expressed in the data, measures have been put in place by SISOs, ECE coordinators, and headteachers to take supervision and monitoring of teachers seriously. They believe that supervision is one of the effective tools that can put teachers on their toes to continually implement what they have been trained to do. SISOs, ECE coordinators and headteachers again stipulated that they would make sure all teachers are sufficiently using play-based approaches in lesson delivery and will try their possible best to offer assistance that are in their limit to teachers who will need any form of support. Coordinators and facilitators of the education innovators also stated that with the training giving to teachers, headteachers and other district officials, they are assured that these officials can give teachers refresher training from time to time and can also provide capacity building training for newly posted teachers.

4.7.5 Challenges to the sustainability of interventions

Sustaining the gains of the education innovators' programmes and positive contributions to early learning is imperative, however, several challenges set out to limit the extent to which these contributions can be sustained. Some challenges identified by district participants include:

One challenge is about parents, parents who are not concerned about their children, even attending P.T.A. meetings to know what is happening in the school because for some of the learners, you will call for their parents and they will never come. You will call for P.T.A meetings they will never come, so if there is something that is bothering this child then all the problem, all the challenges come down to the teacher in the classroom and that of the headteacher which maybe they too cannot handle it. The other thing I can think of is classrooms where there might have challenges regarding their school buildings (KII with NGO Coordinator, Akuapem South).

Movement to schools in the circuit is difficult. There are no proper roads linking the towns in the circuit. Our motor bikes are also not maintained, making us stacked to one place when the bikes are spoilt. The motor bike has killed more than 10 SISOs in the district due to lack of maintenance. So, sometimes it is difficult to move but we always try our best with the little that we have (KII with SISO, Akuapem South).

If teachers do not receive training on play-based learning at the college level before they are posted, it will pose challenges as GES at the district level may not have the resources to train them on play-based learning (KII with NGO Facilitator, Kumbungu). The results from the analysis show that in as much as stakeholders such as headteachers, SISOs, ECE coordinators and other officials seek to improve on the sustainability of the benefits enjoyed from education innovators, issues such as, limited fund, lack of motivation, poor road networks and inadequate logistics more often hinder the ability of district officials to perform their supervisory roles which could lead to challenges to the sustainability of interventions.

4.8 Findings on Theme 5: Cost efficiency

This section presents results on the cost-effectiveness of play-based approaches and value.

4.8.1 Cost effective approaches

All the stakeholders interviewed in intervention schools praise the education innovators for emphasizing co-production of TLRs in schools by teachers and learners. The training of teachers (e.g., in-service training) in both regions improved the skills and abilities of teachers to transform locally available materials into useful objects to impart knowledge. In the Northern region, teachers improvised local learning materials using cardboard papers, leaves, sticks and others within the school environment to improve the early graders' knowledge and skills. Similarly, it is revealing that Sabre built the capacity of teachers on how to create TLRs as a mechanism for reducing cost. A teacher in Kumbungu indicated that *—an innovation through co-creation of TLRs saves under-resourced schools and parents hundreds of monies* because parents are not levied to buy TLR. This observation was corroborated by headteachers who asserted that tasking learners to bring local materials from their homes beats down the cost of TLRs acquisition.

However, in the non-intervention schools in the Northern region, the results show that few teachers seldomly prepare and use TLRs. According to an ECD teacher in Yendi, co-production of TLRs in non-intervention schools usually encounters resistance from parents because parents do not understand why their wards should carry local materials to school. The view was corroborated by a parent who indicates that —*it is not the business of wards to bring stuff from home for teachers to use. Hmmm...my understanding is that the government provides schools with TLRs, therefore I won't allow my ward to send resources to the schools*.

Preparation of TLRs by learners

The evidence shows that some older children in upper primary who are good at drawing are invited by their class teachers to assist in designing TLRs. Some of the early graders contended that they could prepare kites and canon using pieces of paper. Others also claimed that they could use sand and pebbles to create imaginary objects on the ground during play with their peers. Similar trends were observed in non-intervention schools. Head teachers and teachers stated that some of the early graders are fast-learners and able to do impressive things by themselves with minimal guidance and help.

However, the challenge is that some of the early graders sometimes misplace or damage these materials which most of the time belong to their parents. Thus, parents now feel reluctant to give such materials to their wards. In addition, some headteachers invite resource persons who do not charge much to train teachers and to give refresher workshops on play-based learning.

Asking learners to come to school with materials

There appears to be conflict between teachers and parents in non-intervention schools in the Northern Region. In Yendi, many parents disliked the notion that early graders should come along with local materials to school considering that they are minors. Picking local materials from the environment also poses risks to the children, for example, snake bites or scorpion sting.

Using items found in the immediate environment to develop TLRs

Teacher interviews show that in all schools in intervention districts in both Northern and Eastern Regions, early graders use empty cartoons, plastics/rubbers, boxes, milk tins and wine cork found in their immediate environment for various play-based activities including kites. In the non-intervention districts, the use of items from the environment was low, maybe due to limited resources (in other words, old and unused materials) in rural and hard to reach communities.

Providing school-based training for teachers on TLRs preparation

Generally, teachers in intervention and non-intervention districts in Northern Region have been empowered by state and non-state actors on the TLR preparation, although the level of participation varies.

Providing school-based training for teachers on play-based implementation

Across all schools in both regions, all teachers have received training on play-based implementation through INSET and regular training in their previous or ongoing tertiary education.

4.8.2 Values of the cost-effective approaches

The evidence shows that training teachers on how to develop TLRs using locally available materials promotes play-based activities and improves conditions in the classrooms, especially issues of gender and social inclusion. The findings show that in intervention districts, education innovators have carefully linked training and content to MOE standard-based curriculum and thus reinforced the objectives of the curriculum (e.g., see training manual for early grade teachers—endorsed by MOE/GES). The innovators have also supported heads and District ECE coordinators on effective monitoring/coaching and supervision.

4.9 Findings on Theme 6: Effectiveness and challenges of play-based learning and the way forward

Perceptions of play-based learning and play-based pedagogies

The perceptions held by participants on the use of play-based approach in early childhood centres were by far very good. An overwhelming majority of the participants expressed positive views about the utility of play-based pedagogies in early childhood education with the responses ranging from improvements in fluency skills, cognitive, social and physical development of the learner as well as increased learner participation in lessons, increased experiential learning and unearthing of hidden abilities and talents in the learner, to mention but a few. There were no variations in the responses recorded across the two (2) regions, whether they were in reference to an intervention or non-intervention district. In spite of the positive perspectives expressed about the implementation of play-based learning at the early childhood centres, a few of the participants lamented on some challenges associated with its use. Some of the challenges enumerated include play-based pedagogy being time

consuming, tiring, lack of TLRs to facilitate its use, no or inadequate infrastructure to support its use, and inadequate knowledge on the use of the pedagogy. Since many of these challenges are discussed in detail in the challenges of play-based learning section of this report, only a few of them will be discussed in this section. Some of the perceptions held by the participants in the intervention districts of the Eastern Region are as follows:

This is great because students don't feel scared or tense throughout the lesson. It's in the form of play so it allows free participation of pupils without fear and panic (KII with Teacher, Akuapem South).

I think adopting those methods to teach the early learners is very good because when you take a method like story sharing, it's often used at home so you wouldn't consider it as a mode of learning but it's a very effective method of teaching and learning, especially at this age. Using approaches like story sharing and rhymes enhances their fluency skills (KII with Teacher, Akuapem South).

Yes I think they are because a child remembers whatever has been role played to them better than memorization. I think it's very good. They easily remember when you teach them something through play and the kids do well with regards to play activities. Personally, I think it is the best and must be encouraged at all levels, not just the early childhood level (KII with Headteacher, Akuapem South).

Very, very. At the end of the day, either through play or drama, it brings out what the kids are capable of doing or their hidden talents in them. sometimes, they might not even know themselves that I am able to do this or I can do that but at the end of the day, through this method, the kids themselves are able to know what their capabilities are and also it brings out a form of collaboration amongst them (KII with Teacher, New Juaben).

Yes, Perfectly..... it is good. For instance, in science, previously, we couldn't get access to that. You will go to the lab and the teacher will tell you this is this, we add this to this or we add that to that. But with the play-based, the children have a chance to have a feel of it. Now in their science lessons, if they are learning about plants, they go out to take some of the plants and bring them to the classroom to study them..... (KII with Headteacher, New Juaben).

The perceptions on the utility of play-based learning were just as positive in the nonintervention districts of Suhum and Yilo Krobo in the Eastern Region and enumerated similar benefits as listed in the paragraph above. Below are some of the excerpts of opinions expressed by the participants.

Yes, I think they are very appropriate because at that level, the child is now coming from home so I think there should be that play-based learning so that it wouldn't be like a break from what the child sees at home and what the child sees in school. The child will not see the school differently from the home. The child sees the school and home as the same and feels normal to come to school (KII with Headteacher, Yilo Krobo).

Yes, it is appropriate, especially at the lower levels. At the early childhood level, the children understand when they see the concrete materials. It is when they get to the

higher levels that you can teach them in abstract, but now, real objects are used during teaching for the children to see, and by seeing and doing, they learn something from it..... (KII with Headteacher, Yilo Krobo).

Yes, when learners come to school and the atmosphere created is tense, they feel they don't belong here but when activities are centred on play, the learners will feel comfortable and see the teacher as one of them and are enthused to come to school every day (KII with Headteacher, Suhum).

I think it is appropriate and it makes the learners happy and they participate a lot during lessons. It appears they are just playing, however; it helps them to grasp the concept easily (KII with Headteacher, Suhum).

It's appropriate to use because children like games naturally and when they're doing that, they automatically become more interested in whatever activity is ongoing and they see the learning to be fun so everybody wants to be part of it... it also makes the teaching very easy and very simple for the teacher. You don't do a lot of talking because they are already interested.... (KII with Teacher, Suhum).

Perceptions of participants in the selected districts in the Northern Region were not different from the perceptions held by participants in the Eastern Region. As already mentioned, the various participants held very positive opinions about play-based pedagogy and highly recommended its usage. In addition to the benefits mentioned earlier, some teachers mentioned that it is beneficial for teachers to know their learners much better in order to identify their areas of difficulty and offer the necessary assistance. The excerpts below, succinctly captures the opinions and views of participants in the Northern Region. In the intervention districts, the views expressed include the following:

Play-based pedagogies are appropriate for my classrooms and pupils because the pupils like to play therefore if learning is structured in a playful way, they will enjoy the lesson and fully participate in whatever activity the teacher will plan for them and with that, the lesson objectives will be achieved (KII with Teacher, Kumbungu).

It is very appropriate for my classroom and students because it aids in retentive memory, it ensures that all the pupils are involved in the lesson and because of the play component, the pupils develop or become interested in the lesson (KII with Teacher, Kumbungu).

It is appropriate because at their level, their way of thinking or doing things is not like those at the upper class so play learning is the best. It makes learning easy and participatory, it brings out talents and helps build talents of children. It helps the teacher to know the individual children and how to help them. It also helps the children to understand what is being taught and the quiet ones learn to participate in class (KII with Teacher, Kumbungu).

Similar perceptions about play-based pedagogy were expressed in the non-intervention districts, of particular mention was increased attendance and participation among learners. The sentiments expressed include the following:

Yes, play-based learning is the most appropriate approach for every teacher, especially those teaching at the lower levels to use. It also helps learners to learn fast (KII with Teacher, Yendi).

Yes, they are very effective because it keeps the children active and makes them reason (KII with Headteacher, Mion).

Naturally, children love play and using play-based approaches in your classroom as a teacher will give the children the morale and even the interest to come to school and participate in lessons when you are using play-based in your class (KII with Headteacher, Mion).

However, in spite of its utility and the positive perceptions held by the vast majority of the participants, a few of the them lamented that the lack of knowledge on the approaches as well as the lack of or inadequacy TLRs has made them deficient in its usage.

No, I did not have any special training in play-based approaches except what I learnt in my College of Education. If I have the opportunity to attend their training, and have TLMs I would inculcate it in my lessons.....(KII with Teacher, Kumbungu).

I find it difficult to use the methods because of lack of TLMs (KII with Teacher, Kumbungu)

No, I don't use it (Dramatization) because of the class size, the children are so many (KII with Teacher, Kumbungu).

4.9.1 Benefits associated with play-based learning

This theme sought to identify the associated benefits of play-based learning to teachers and learners from the perspective of teachers and headteachers drawn from intervention and non-invention districts. The sub-themes that emerged from the transcribed data include:

Benefits related to cognitive development

The majority of responding teachers and headteachers highlighted some insightful relevance of play-based learning in relation to learners' cognitive development but there were no differences relating to their views emanating from participants from intervention and nonintervention districts. The benefits reported by the participants of which the data represents did not express differing opinions on the associated benefits of play-based learning to children cognitive development, implying that teachers and headteachers in Intervention and Non-intervention Districts; Northern and Eastern Regions; Urban, Peri Urban; Rural, and Extremely Deprived believe play-based learning is relevant to the cognitive development of children.

For example, a headteacher from Kumbungu remarked that

Children easily memorize concepts through play because they physically see play materials. Through play learning children understand things and become smart in learning new things (KII with Headteacher, Kumbungu).

To corroborate this statement, a teacher from Mion also expressed her views as follows.

Yes, play-based learning helps the students to be good problem solvers (KII with Teacher, Mion).

Affirming the views expressed, a teacher at New Juabeng indicated that

They think they are playing but they are also learning and keeping things inside their heads. One day, they will just remove those things and it will work well for them (KII with Teacher, New Juabeng).

In addition to these, another participant stated that

Play-based learning helps the children to remember whatever they have learnt in the lesson the teacher treated (KII with Teacher, Yilo Krobo).

Similarly, A teacher added

It helps children to solve problems by themselves. Talent identification within children (KII with Teacher, Kumbungu).

The comments from the participants indicated that play-based learning provide opportunities for children to manipulate materials and explore their immediate environment. Through these experiences, they can develop problem-solving skills, critical skills, and creativity as they explore and play. Again, the quotations suggest that an essential aspect of critical thinking can emerge when children are allowed to make some decisions on their own through play-based learning. Providing mind-tasking play-based activities to think for themselves and resolve the challenges they might face while executing the task given is a great way to improve critical thinking skills and by large their cognitive skills.

Benefits related to social development

Benefits of play-based learning relating to children's social development were also highlighted in the interview data. The participants (headteachers and teachers) in this study shared that play-based learning have some importance to learners' social development. A respondent explained some of the benefits this way:

The children identify their true identities through play, they realize that it is not like I do not know, it is just that I was afraid to speak out. But because I am playing; they even say it without realising they have said it. And then, you will discover some skills from the children. You will realize that when you put them in groups and give them something to do, you realise that some naturally can lead the group. And some, they have the idea, but they can speak up so when they are discussing within themselves, they try passing it, but the other persons can just deliver it (KII with Teacher, New Juabeng).

A headteacher added that

They are developed socially in the sense that when they're interacting with peers during activities (KII with Headteacher, Yilo Krobo).

Another teacher further explained the importance of play-based learning to social development saying:

Play inculcates socialization among children. Inculcates sharing among children. Teaches them teamwork and togetherness. When they interact, they appreciate each other. Since the share ideas together, at the end they can ask each other (KII with Teacher, Kumbumgu)

Similarly, a teacher recounted that

Through play, the children develop their ability to cooperate (KII with Teacher, New Juabeng).

A teacher from New Juabeng shared this view:

There are some kids that won't participate in anything in class or talk the whole day. But play-based learning has helped them a lot immediately they see their friends doing something then they also try to do it (KII with Teacher, New Juabeng)

Affirming the views expressed, a teacher from Kumbumbgu also indicated that

Yes, play help the child's social development. During think-pair-share I put student into groups of twos, they share their ideas together with the group and I am able to get all learners involved (Teacher at Kumbumgu).

Also, a headteacher added that

Socially, children relate well with others (KII with Headteacher, Mion).

The views expressed by the participants suggest that play is universal and critical for healthy social development. Hence, providing children with the opportunity to learn through playbased activities provide valuable opportunities for children to interact with others as they learn about social norms and develop relationships with their peers. Through play, children learn how to control themselves, take turns, share materials, and cooperate with others. They also learn how to resolve conflicts, which is an essential part of social development as they go beyond the early childhood stage.

Benefits related to physical development

The data highlighted multiple benefits of play-based learning to learners' physical development. These benefits were shared by teachers and headteachers in Intervention and Non-intervention Districts; Northern and Eastern Regions; Urban, Peri-Urban; Rural, and Extremely Deprived. The responses from the teachers and headteachers did not show any distinct difference in opinions shared.

A headteacher in Mion, for instance, articulated that

-Physically through play, learners are get the opportunity to exercise their body since play is a form of exercise. Activities such as jumping on letters and numersals, at times too they would have to run in the classroom, all these build them physically (KII with Headteacher, Akuapem South).

Another headteacher indicated that

—The child is able to manipulate let's say in a day they are supposed to do one or two activities that has to be done with the hand or the hand eye coordination. So physically, they are able to develop their hand eye coordination.

A headteacher also added *-Physically, like the ball games, the child is able to develop physically*. Some of the teachers confirmed the view of the headteachers. For instance, a teacher mentioned that

—Play helps children to develop their fine and gross motor skills (KII with Teacher, Yilo Krobo).

Data from the participants clearly demonstrates that play-based learning also allows kids to hone their physical abilities. Through play, children learn how to balance, hop on one foot, throw and catch, and practice using a variety of other fine and gross motor skills.

Benefits related to language development

The responses of both the teachers and headteachers indicated that play-based learning enhances learners' language development. A participant narrated that

—Play-based learning helps the children to get the actual sound of the letters and put them together to get the pronunciation of words and blending consonants and vowels to come out with words (KII with Teacher, Mion).

She further noted that

—The learning outcome in play brings good communication skills. When teaching them drama, especially a song like _coraya, coraya', where they pass tunes to each other, it gives those who are louder the upper hand, and that is the communication skills (KII with Teacher, Mion).

This is how a teacher at New Juabeng put it

—Through play, the children develop language acquisition (KII with Teacher, New Juabeng). Another teacher mentioned that *—It also improves vocabulary and language development and reading becomes better* (KII with Teacher, Yilo Krobo).

Data collected from the participants suggest that play-based learning enhances children's literacy and language development. This implies that play-based activities allow children to learn new words and practice their language. It also helps children integrate written and oral means of communication while learning the structure and meaning of new words.

Improvement of lesson delivery by teachers

The participants cited improvement in lesson delivery as a benefit of play-based learning. Some of the participants from the study recounted that play-based activities help them to deliver their lessons with ease. For example, a teacher expressed that —*The play-based pedagogy has made teaching learner-centered. Consequently, it helps in the engagement of learners throughout the lesson periods thereby making it interactive* (KII with Teacher, Akuapem South).

Another teacher echoed:

It is helping me a lot because in our olden day when we were going to KG, we don't have those things so teaching was very complicated and then but this one you can see that the child understands what you are talking about because they have the things in front of them and they come out with their own activities (KII with Teacher, New Juabeng) A similar view was shared by another teacher in an extremely deprived community within a non-intervention district and he states:

—Using the play to treat a lesson helps the teacher not to encounter any difficulty, you do not have any difficulty treating a topic/lesson with the children. With the play, you allow them to do their own things, explore and you the teacher will only guide them. It also helps you the teacher to release tension (KII with Teacher, Yilo Krobo)

A headteacher in a rural community shared a similar view —*It helps by making the teaching very simple for the teachers. It also helps me to give an effective and interesting introduction to a lesson. I can relate learners' previous knowledge to the lesson to be taught* (KII with Teacher, Mion).

Another headteacher shared that

—Play-based pedagogies help teachers to teach effectively and use practical demonstrations in teaching and learning. It also helps teachers to engage children (KII with Headteacher, Kumbungu).

He continued —*Teachers can deliver lessons well once they are equipped with the requisite knowledge and the right TLMs. When these conditions are satisfied teachers can effectively implement play-based learning in the classrooms* (KII with Headteacher, Kumbungu).

Another teacher remarked —*Play helps me to deliver very well because using the resources, the children see, and they understand. As they see, sometimes they even understand before you start and that makes it easy* \parallel (KII with Teache, Kumbumgu). In addition, a teacher expressed that —*As you are teaching, the whole thing is fun to you, so you even go beyond what you want to teach. There is nothing like you being bored, tired or anything* \parallel .

The participants believe play-based learning is an appropriate pedagogical approach that most effectively assists in the delivery of content to early-grade learners without much struggle while maximizing the understanding of concepts. However, they stated that the pedagogy is useful and effective under certain conditions such availability of teaching-learning resources and other resources.

Improvement of learning among early graders

Another benefit of play shared by the participants was how play facilitates the understanding of concepts among early graders. From the responses of the teachers and the headteachers, they made it known that play-based learning helps children to adjust to the school setting and even enhance children's learning readiness and how they understand new concepts. A teacher in a rural community in New Juabeng noted that:

—The practical aspect is more, so this one helps the child to understand the thing more because they are seeing what you are talking about. Like the centres, the things are there, when you want to do hairdressing, saloon and all those things, hospital so they see the thing real and they dramatize that thing or do role play \parallel (KII with Teacher, New Juabeng)

Similarly, a teacher in an urban community at New Juabeng also recounted that:

—We say we learn by observing and practice so when a child is involved for instance when I say I have a flash card with alphabets come and I say come and take a certain alphabet, even taking it and the kids observing when they want to remember they will first of all remember the students or their friend and they will recall or reflect in their mind (KII with Teacher, New Juabeng) A teacher in a rural community in a non-intervention district confirmed this view:

-Yes, when you use play-based approaches, they understand it more because they are doing it and they get involved more. The teacher serves as a guide and not impose anything on them. Their understanding level increases and brings about high participation among the learners^I (KII with Teacher, New Juabeng)

A teacher also mentioned that:

—Because it's an activity, children learn better when they involve themselves in doing something. So, since it is an activity, they do it themselves with their own hands, they involve their emotions and everything in it. They understand it better than you coming to stand and teach. So, it helps the teacher to teach from the child-centered approaches and they understand it well (KII with Teacher, Mion)

Another teacher also indicated that:

—Play-based assist in learning concepts, through the play. For instance, when you want to teach a concept like nouns, pronouns and adjectives, what you do is that you asked them in a form of a play to touch anything in class and this introduces them to the concept of nouns. This helps the children pick the concept fast (KII with Teacher, Mion)

Another teacher confirmed this view that the *child plays a part and by the end he or she will know what he or she did as well as what others contributed in the lessons so they can easily remember the things they learnt* (KII with Teacher, Kumbungu). The headteachers affirmed the views expressed by the early grade teachers. The views expressed by the headteachers indicates they were particularly satisfied with play-based learning because it helps the children to learn better. Here are some excerpts

-Children understand concepts when there is effective use of play through singing, rhyming and dancing. Children by this can easily understand and retain concepts^{||} (KII with Headteacher, Mion)

Another headteacher shared this view —*Play makes learning easy, fun, and kids grasp the content very fast* (KII with Headteacher, Yilo Krobo).

Affirming the comments made, a headteacher at Kumbungu indicated that —*As the child involves in physical activities, the child develops the concept by himself which enables him or her to understand it better* (KII with Headteacher, Kumbungu).

He continued —*Children easily understand the concepts since they personally take part in the activities the teacher takes them through*^{||} (KII with Headteacher, Kumbungu).

The above participants' responses implied that integrating play gives children the space and independence to explore the ideas that interest them with the aid of teaching and learning resources. Again, teachers utilise the teaching and learning resources to extend teaching beyond abstract concepts. This helps the children to understand whatever they are been taught. Besides, children appreciate learning environment equipped with developmentally appropriate materials and fun-filled activities. They desire to learn new concepts within such an environment. The data revealed that play-based learning easily help children understand these new concepts they explore.

Improvement in enrollment and attendance

The interview data revealed that play-based learning has improved the level of enrollment and attendance in the public schools. Participants from both intervention and non-intervention schools shared similar views on how play-based learning has increased enrollment and attendance in their schools. A headteacher explained:

Apart from helping teachers and learners, on the part of parents, they have become more active in participating in the school's activities where they tend to praise us with motivating words. They get the opportunity to witness some of the indoor and outdoor activities and they are satisfied by what we are doing. There was this parent who came to see the ward and was shocked at how the child who doesn't talk at home is busily engaged with activities with other colleagues. Now, enrollment has shot up, parents make sure their wards are in school every day (KII with Headteacher, Akuapem South).

Another headteacher shared this view and detailed his personal experience

.....Beautification of our classroom, now parents come to our schools and they are excited. Our schools now are nicer than private schools. Last term, a parent brought three of her children here and she told me that they were in the private school and if I can quote her, their classrooms are not nice at all when I came here the place is nice, so I have brought all my kids here (KII with Headteacher, Akuapem South).

The responses of some of the teachers confirmed this...

It is really having a positive impact on the teaching because the pupils are always expectant of the new games they will learn from the lesson and this whips upo their interests in the lesson such that even when it's ending, they don't want you to end it. It has also resulted in increased attendance at school because they don't see learning to be something of a challenge or something to be dreaded but rather a fun activity (KII with Teacher, Suhum).

The play-based approach to learning comes with benefits such as making lessons interactive and interesting for learners. Most especially, in this school, it has reduced drastically pupils' absenteeism (KII with Teacher, Akuapem South).

It also motivates children to come to school because children like to play and if they know that when they come to school they will play and learn, they will love come to school so it motivate them to come to school (KII with Teacher, Kumbungu).

Play-based learning improves enrolment, because pupils are happy when they are taken through play activities in the school (KII with Teacher, Yilo Krobo). Children are enrolling more and staying in school because they want to play (KII with Teacher, New Juabeng).

The responses of both the headteachers and the teachers suggested that play-based pedagogy has contributed immensely to enrollment and attendance. They believe parents of early graders have begun to appreciate play-based learning and the learning environment in public early grade centres, hence, they have enrolled their children. Again, the learners have developed interest in the activities that occur in the school and do not miss school.

4.9.2 Challenges to play-based learning

The main challenges expressed by all the participants were mostly related to either the lack or inadequacy of teaching learning resources. Some differences between the concerns expressed by the teachers and headteachers could be attributed to variations in the social-cultural contexts in which they operated and the level of support they receive from existing education innovators. Some views expressed by teachers in schools in rural and extremely deprived areas suggest that in most cases they are under-resourced materially and lack the proper infrastructure to facilitate play-based learning. The data gathered also shows that schools in the urban and peri-urban areas are quite attractive and better resourced than the rural and extremely deprived areas, however, the conditions does not still permit for an effective play-based learning due to inadequacy of play materials. It seemed that the headteachers were helpless and shared the sentiments of the teachers. Several themes relating to the challenges to play-based learning emerged from the data. These include:

- ✓ Inadequate TLRs
- ✓ Overpopulated classrooms
- ✓ Lack of maintenance and repair culture
- ✔ Time consuming
- ✓ Security and safety
- ✓ Limited training
- ✓ Absence of education innovators in several areas

Inadequate TLRs

The majority of responding teachers and headteachers highlighted issues relating to the lack/inadequacy of teaching and learning resources. The TLRs challenges reported by teachers and headteachers in rural-and-extremely-deprived and urban-and-peri-urban areas were similar but unaccommodating for schools in rural and extremely deprived areas. Here is what a teacher in a rural area in non-intervention said —*The challenge is about the materials that I will use, lack of materials that is what I have been facing and it makes teaching difficult* (KII with Teacher, New Juabeng).

Another teacher confirmed:

It is not difficult to use play but we need a lot of materials like TLMs and textbooks because it involves play. But because of the limited resources in the school, learning on the part of the learners takes a lot of time compared to those in the city (KII with Teacher, Akuapem South).

Another headteacher shared this view — Unavailability of some of the resources such as manila cards, classroom and other materials needed to deliver lessons^{II} (KII with Teacher, Mion). Similarly, a teacher in a rural community at Mion also recounted that — The materials as I said is a challenge, some of the games we can't get them. And those games are very important. So, if you can't get the material, how do you do the game^{II} (KII with Teacher, Tolon).

One of the headteachers in rural areas confirmed the challenges expressed by the teachers. He mentioned that —*Sure, there are challenges based on the environment we find ourselves in. The environment is not strategized for teaching and learning, because we don't have most of the teaching and learning materials' '* (KII with Headteacher, Mion).

The comments from the teachers and headteachers in the rural and extremely deprived areas suggest that they lacked basic teaching and learning resources such as manila cards, legos, wooden blocks, and counters. The availability of these instructional materials could assist teachers in successfully implementing play-based learning among early learners. They attribute this challenge to the deprived nature of the communities in which they find themselves. Whereas the participants in rural and extremely deprived areas believed their environment limits them from accessing teaching and learning resources, the teachers and headteachers in the urban and peri-urban areas also believed teaching and learning resources are inadequate to implement play-based learning. However, their concerns suggest they need some special TLRs which are appurtenances of learning in urban areas. For example, a teacher complained that:

You know I will definitely talk about TLM because under normal circumstances you said we should use play base over here they are still young so at least something like Television or something could have been here for you to play but we don't have them (KII with Teacher, New Juabeng).

Another teacher also indicated that:

The first challenge is the lack of resources. Though teachers make resources it is not everything that can be made by teachers due to the durability. For example, with the self-registration centers for learners, we were taught by Sabre to use Manila cards and sachet water packaging which was less expensive. But as time went on these got worn out and we had to find more durable ways which were using fabric. But getting funds for the purchase of the cloth was an issue (KII with Teacher, New Juabeng).

A headteacher in a peri-urban area in the Akuapem South affirmed that: —*There are inadequate TLRs for all KG learners to interact with* $\|$ (KII with Headteacher, Akuapem South). Another headteacher added the materials to be used to effectively teach the KG learners are not available to the teachers (KII with Teacher, Kumbungu).

Overpopulated/—unfriendly classrooms

Some teachers reported having "**unfriendly**" **classrooms** due to the large class sizes/ number of early graders especially at the KG level. In some schools the lack of trained teachers has demanded the need to merge two classes (KG1 and KG2 or P1 and 2). This makes it difficult for early grade teachers to manage overpopulated classes ... some between 70-80 pupils. –It is even more challenging when a pregnant early grade teacher is tasked to manage a classroom without a teaching assistant. Participants expressed their views on how an overpopulated classroom has been implementing play-based learning. A teacher from Tolon shared the view by explaining that:

Looking at our environment, some of the games needed a large area of space. So that those who are to perform the games will have their space and those that will observe will also have place for that. Or if you want to group them, all the groups cannot be in that particular space so they have to be spaced in order to help them do the activity (KII with Teacher, Tolon).

Another teacher also remarked that:

Sometimes space. Because it is not all the time that the classroom can serve as a place for doing a particular game or activity. And here too they don't have enough space and the children are many. Because here, if my class should come out to this place, some of them will be standing in the sun (KII with Teacher Tolon).

It was articulated by a teacher that —*The classroom is not spacious and the children are many* so we cannot add more learning centres for the learners^{||} (KII with Teacher, Akuapem South). A teacher at Kumbungu also pointed out that –*Some of the play-based activities need* space to be performed, the small space of the classroom makes it difficult for us to use some of the play-based activities^{||} (KII with Teacher, Kumbungu). A headteacher in the same District confirmed that —*large class size makes it difficult to control pupils during play-based learning*^{||} (KII with Headteacher, Kumbungu). She continued –*some teachers combine two classes, and it is too large to implement play-based learning* (KII with Headteacher, Kumbungu).

Data from the participants reveals that overcrowded classrooms negatively affect the teaching-learning process. It creates difficulties for both for teachers and learners. Teachers spend most time addressing misappropriate behaviours during play-based activities and cannot pay attention to each of the learners.

Lack of maintenance and repair culture

The head teacher interviews show that the provision of play-based resources is sometimes in disrepair. A head teacher said that -I wasn't given any money by the NGOs to repair the facilities when they break down. When I informed parents and community members, they told me to use my money to do it because the government pays me. But I will not use my personal money to do so because none of my children is schooling here (KII with Headteacher, Northern Region).

Time consuming

Teachers in some intervention schools complained of having to **spend more time** in the preparation of early learning materials for their classes (on average 30 minutes to one hour). According to a KG 2 teacher —*I spend more time marshaling the grown-up students to help me develop simple TLRs. Sometimes, I use the entire week to prepare different kinds of TLRs and have less energy to teach them. If the school had enough TLRs, I would not have been wasting time to do these things*.

Security and Safety

Headteacher interviews show that some schools have **inadequate cardboard and padlocks for classes,** which pose security threats for play-based learning resources in intervention schools across the Northern and Eastern regions.

-....my school lacks a night watchman. Some community members break into the classrooms to smoke Indian hemp. They tear posters and books in the classrooms to wrap Indian hemp while some use them as toilet rolls. Because of this, my early grade teacher does not want to prepare Teaching Learning Materials for the school anymorel (KII with Headteacher, Eastern region).

Interview results with early grade teachers indicate that a key challenge of play-based approaches is the **lack of changing room for teachers**. A female teacher state that

-the GES council requires all government school teachers at the pre-tertiary level to wear -Kaba and slit to school. I abide by the regulation always but the lack of changing rooms in my school makes it difficult for me to change my dress to participate in appropriate out-door play-based activities with early graders. So, I limit my teaching to only indoor activities. I hope that you will not blame me but that is the best I can do (KII with Headteacher, Eastern Region). Headteacher interviews show that some schools lack proper cardboard and padlocks for classes, which pose security threats for play-based learning resources in intervention schools across the Northern and Eastern regions. A head teacher remarked that —My school lacks a night watchman. Some community members break into the classrooms to smoke Indian hemp. They tear posters and books in the classrooms to wrap Indian hemp while some use them as toilet rolls. Because of this, my early grade teacher does not want to prepare Teaching Learning Materials for the school anymore! (KII with Headteacher, Eastern region).

Limited training

Limited training on play-based learning was another theme that emerged from the study. Most teachers in the non-intervention district claimed they have neither received any training nor have had any training avenues for play-based learning. Here are examples of a few excerpts to help —*I have no training avenues that are available for me in the teaching of learners with play-based pedagogies* (KII with Teacher, Yilo Krobo).

Another teacher added that —we have not heard any workshop about $it\parallel$ (KII with Teacher Tolon). A teacher also said that —I have insufficient training on how to prepare play materials \parallel (KII with Teacher, Yilo Krobo).

Interview results with early grade teachers indicate that a lack of changing room for teachers affects effective play-based delivery. A female teacher states that —*the GES council requires all government school teachers at the pre-tertiary level to wear —Kaba and slit to school. I abide by the regulation always but the lack of changing rooms in my school makes it difficult for me to change my dress to participate in appropriate out-door play-based activities with early graders. So, hmmm, so I limit my teaching to only indoor activities. I hope that you will not blame me but that is the best I can do (teachers in the Eastern region)*.



Figure 14: Lack of school room and furniture for early graders and teacher in Yendi

4.9.3 Ways to address the identified challenges

Provision of Teaching and Learning Resources by the Government

The need for the government to provide TLRs was emphasized, pointing to the significance of teaching and learning resources to play-based learning. The interviewees drawn from intervention and non-invention Districts, Northern and Southern belts, rural and urban areas shared a similar recommendation. For example, one teacher remarked:

Play-based learning is all about resources which means using a variety of materials to vary the lessons for the learners to enjoy so the government should provide them (KII with Teacher, New Juabeng).

I will also recommend that all materials used by the K.G and lower primary are provided by the government (KII with Teacher, Kumbungu).

The identified challenges can be addressed by providing or making TLMs available, also, materials that can be used in play-based approaches should be provided (KII with Teacher, Kumbungu).

Another teacher added —If we were to have the equipment from the government, will make them happier than for me to be standing and singing^{||} (KII with Teacher, New Juabeng). A headteacher added, —government needs to provide some of the materials for teaching^{||} (KII with Headteacher, Akuapem South). In the same vein, a teacher remarked that: —The government should provide appropriate textbooks, computers, projectors and accessibility to free Wi-Fi for pupils to research online^{||} (KII with Teacher, Yilo Krobo). Similarly, a headteacher added —more play-based materials should be provided by the government in order to make teaching essays'^{||} (KII with Teacher, Yilo Krobo).

Participants believe they were more likely to be successful in implementing play-based learning in the schools if the Government through the Ghana Education Service supplies them with adequate teaching and learning resources.

Assistance from education innovators

One of the major ways that emerged from the interview data was related to education innovators. From the responses gathered, both teachers and headteachers indicated that education innovators are beneficial and could help them in overcoming the challenges they face in the implementation of a play-based curriculum. Thus, it is their wish that these innovators come to their aid. For example, a teacher remarked that:

we have this thing that they put songs on it, pen drive and those things they have to share some for us so that we can have more songs and then when the program is going on like I'm doing now, there will be recordings that when you come to the classroom you can use it at there are things you learn and can't remember. The children love and are interested in those things because they decide to be attentive when they see new things in the classroom so it will help them a lot. Sabre can help us with plenty of things (KII with Teacher, New Juabeng).

Another teacher added that —For the materials, if any NGO can help us. Especially Right to Play. If they can provide some of the materials that are needed in some of the activities or the game, I think it will be better (KII with Teacher, Tolon).

In addition, a headteacher mentioned that —there should be provision of spacious classrooms by the NGOs^{II} (KII with Headteacher, Akuapem South). Another headteacher added —Schools that lack furniture must be supported by NGOs^{II} (KII with Headteacher, Kumbungu). Similarly, a headteacher shared this —Though you have told me about your company, I don't know much about it but I will recommend that you visit us more often and help us get appropriate and more teaching and learning resources^{II} (KII with Headteacher, Akuapem South).

5.0 Conclusion, recommendations and lessons learned

5.1 Conclusion

Generally, early learning education innovators are providing support and assistance to government schools in Eastern and Northern regions of Ghana. The assistance helps District Education Directorates, headteachers and teachers to improve teacher professional development in relation to early learning pedagogical instruction, promotes locally developed TLRs and play based pedagogy and create improved conditions for effective teaching and learning activities. Teachers in the intervention schools have better knowledge of play-based pedagogy and can easily apply this knowledge in their classroom lessons. This has impacted positively on learners who are more confident and engaging in their learning. Non-intervention schools were not able to apply play-based pedagogy easily or creatively during classroom observations. Overall, teachers preferred and enjoyed using play-based pedagogy compared to other traditional instructional strategies (teachers and head teachers across both intervention and non-intervention schools). The findings also suggest that play-based pedagogy increased children's ability to question, build confidence, take initiative and explore their learning environment.

Integration of Play-based Pedagogy

The conclusions drawn from the integration of play-based pedagogies are:

- All participants across the two (2) selected regions from both the intervention and non-intervention districts displayed appreciable knowledge on the meaning of play-based learning in early childhood education, although at varying levels. Whereas the degree of knowledge on play-based learning displayed by most of the participants can be described as -good or -excellent, a few of the participants showed little knowledge on the topic.
- The source of the knowledge on play-based learning varied and depended mainly on the type of district in question, whether the district was an intervention or nonintervention district. Interestingly, even among these categories, the responses were quite nuanced. In the intervention districts, the participants had received training from Sabre Education and Right to Play as well as a number of other innovators. In the non-intervention districts, the participants relied on either the training received from other innovators other than Right to Play and Sabre Education, training as part of their formal education at their respective Colleges of Education or as part of the training workshops organized by the Ghana Education Service (GES) during the sensitization of teachers at the introduction of the Standard-Based Curriculum. This important variable tremendously impacted their knowledge of play-based and the type of pedagogy they employed.

The responses from the Northern Region were quite different as it showed a reversal of the trend established in the Eastern Region. This ought to be investigated during the quantitative phase of the data collection exercise. A few of the responses from the Northern Region were however in conformity with the trend established in the Eastern Region. Overall, however, the participants in the intervention schools in the two districts, especially those in the Eastern Region, displayed a good command on knowledge on play-based learning and pedagogy.

- The perceptions held by participants on the use of play-based pedagogy in early childhood learning were by far good, and even great. Majority of the participants expressed positive views about the relevance of play-based pedagogies in early childhood education. The responses ranged from improvementsof cognitive, social, and physical development of the learners. There were no variations in the responses recorded across the two regions, whether they were in reference to an intervention or non-intervention district. However, despite commending the utility of play-based pedagogies, some of the participants lamented some challenges associated with the use of that approach. Some of the challenges enumerated include the strategy being time consuming, energy supping, lack of TLRs to facilitate its use, no or inadequate infrastructure to support its use and, lack of knowledge of the pedagogy. A few expressed the desire to be trained in the pedagogy by the innovators in the district so that they could employ it in their lessons.
- The attitude of the participants towards play-based learning was gleaned from their usage or non-usage of the strategy and the impact that the training received has had, especially on gender, social and physical inclusion, and the learning of children with SEN. Whereas most of the schools in the intervention districts employed all or a greater number of the play-based pedagogies, including the modern or sophisticated methods such as jolly phonics, think-pair-share, Know-Want-To-Know-Learn (KWL), most schools in the non-intervention districts in the Northern region mainly employed the basic or traditional methods such as rhymes, songs, role play or dramatization. The responses from some non-intervention schools in the Eastern Region revealed a different trend where some of these schools employed a medley of the modern or sophisticated as well as traditional or basic strategies. In all, the majority of the participants did not know the KWL approach and those who professed they knew and use it could not provide enough proof to support their claim as the responses they gave suggest quite clearly that they had no idea about the method.
- The majority of parents in the intervention schools in both regions were impressed by the usage of play-based pedagogies by teachers in delivering lessons.

Inclusion (Gender and Children with Special Education Needs)

- A considerable number of teachers interviewed in the intervention schools revealed that they had received some form of training in gender and inclusion. Although this component seemed to be embedded in the training modules of most innovations, some schools marked as intervention districts that had received training from their respective innovations, had teachers and head teachers indicating that they had not received any training on gender and inclusion.
- Teachers shared some level of knowledge on gender issues though they were not in the majority. These teachers were mostly in the intervention districts with a few teachers with such knowledge being found in the non-intervention districts. This was interesting to note that though training had been provided, it did not directly reflect on their level of knowledge. Teachers may not have been aware about the entirety of gender inclusion, but they were able to demonstrate understanding of some aspects of it like the equal treatment for both female and male learners. Head teachers however

seemed to be well informed about the content of the training provided which seems to suggest that they were involved in the training as well.

- Overall, there were positive perceptions about gender inclusions from teachers who had some knowledge or had received training about it. Though teachers and headteachers did not have a complete understanding of the concept of gender inclusion, they had positive ideas about the little knowledge they had about it. Some teachers were able to share practical instances of gender inclusion in their lesson delivery. This was demonstrated through equal distribution of questions and roles during lessons delivery. Additionally, all learners were allowed to use any learning center that interested them irrespective of their gender, social or physical status.
- Moreover, the attitude of the teachers in relation to gender, physical and social inclusion, especially in relation to children with SEN has seen tremendous improvement across the districts. Both teachers and learners are now embracing children with SEN. The seemingly good news is that long-standing prejudices and discriminations based on gender have seen a drastic reduction, and entrenched traditions and taboos in some communities that overlooked the educational system are gradually fading away.
- On the issue of inclusion of children with SEN, most teachers indicated that they had no or just one learner with SEN in their classrooms and so did not have too much knowledge of how to handle learners with SEN. However, in the few instances where learners with SEN were present, teachers in the intervention schools were found to be making considerable efforts at including them in their lessons. Such efforts included providing special learning materials to accommodate the learning needs of the children with SEN in the class.

Influence of education innovators

There is enough evidence to conclude that among the education innovators identified to be working in the early learning space in the Eastern region, Sabre Education was well known and has made the greatest among early childhood teachers, headteachers, School Improvement Early Childhood Education Coordinators and Support Officers whereas in the Northern Region it is Right to Play.

Early childhood centres in intervention districts both in the Northern (Kumbungu and Tolon Districts) and Eastern Regions (Akuapem South and New Juaben Districts) have received a facelift through these interventions. Teachers in these schools have received training on how to teach with play-based approaches, implement the standard-based curriculum, how to develop teaching and learning materials, how to implement gender and social inclusion amongst others. Headteachers, early childhood education coordinators and some School Improvement Support Officers (SISO) received capacity-building training on how to effectively monitor and supervise teachers and learners and ways of making good use of the information received during these exercises. These interventions have greatly added to the quality of education given to early learners.

The impacts of these interventions are clearly seen from the study's findings as teachers reported that early graders are now more confident, smart, creative, and participatory than before. Early graders now enjoy the teaching and learning process a lot since most of the activities and materials employed are based on the interests and needs of the learners.

It is essential that all these contributions be sustained in the district and even scale up to other levels and districts.

Cost efficiency

- The section needs extensive investigation by the quantitative team.
- The cost of TLRs preparation needs to be taken into consideration. The cost of TLR preparation, hardware or equipment and cost of fabrication of play-based materials need to be considered.

Effectiveness of play-based learning

This section highlights major findings to draw conclusions on the effectiveness of play-based learning. The following conclusions are drawn:

- All participants drawn from the eastern and northern regions, intervention, and nonintervention, extremely deprived, rural, peri-urban and urban believed that play is the primary vehicle for optimal growth and development in at the childhood stage. In their views, play-based learning allows children to use their creativity while developing their imagination, dexterity, and physical, cognitive, social, emotional and linguistic skills. The responses from the teachers and headteachers did not show any distinct difference in views shared. Again, there were no differences in the opinions shared by participants on the urban-rural classification scale. Irrespective of their geographic and socio-cultural context, the teachers and headteachers believed playbased learning is beneficial.
- The participants from both intervention and non-intervention districts believed playbased pedagogies have significantly improved lesson delivery. This approach to learning provides teachers with the opportunity to extend lesson materials which makes lessons interesting, and easy and enables teachers to easily express concepts. Moreover, many teachers and headteachers interviewed in all the study sites held the view that play-based learning facilitates the understanding of concepts among early graders. It was reported by the participants that, involving children in play-related activities stimulates them to explore materials they are presented to which helps in concretizing abstract thought. However, the pedagogy is useful and effective under conditions such as availability of adequate teaching-learning resources and relevant teaching aids.
- Whereas play-based learning has been important, the participants reported the challenges they face integrating the approach into their teaching. The challenges identified include inadequate teaching and learning resources, limited training, and overpopulated classrooms. There were few variations in the challenges shared and these differences are attributed to variations in the geographic and social-cultural contexts in which the participants are found. Teachers in schools in rural and extremely deprived areas are under-resourced materially and lack the proper

infrastructure to facilitate play-based learning. The schools in the urban and periurban areas were better resourced than the rural and extremely deprived areas. However, they did not have adequate materials to make play-based learning successful. The concerns from participants within rural and urban areas in relation to TLRs were appurtenances of learning in urban areas.

At present, USAID/FHI-360 Transition-to-English Plus Program (T2E+) is being implemented within most public schools within the intervention and non-intervention districts to promote literacy. It advocates that pupils in kindergarten through primary three should be taught reading and writing in their local language. The participants in the study expressed that the program gradually expose the learners to the English language, before shifting to English as a medium of instruction in the upper primary and beyond. They argued that T2E+ program is very useful because it gives the children some sense of cultural identity, facilitates learners' active participation in the teaching and learning process and also enhances easy understanding of concepts. Again, they believed most of the sounds learnt in the local language are transferrable to English language, hence using L1 as a medium of instruction is invariably beneficial to the learners.

However, there is also an implementation of Jolly Phonics program within the same districts in which T2E is being rolled out. With the Jolly Phonics program, the teachers use English language as a medium of instruction for delivering curriculum content which opposes the T2E program. The teachers and headteachers expressed that, Jolly phonics is an effective way to teach children how to read and write and since its introduction, there has been a significant improvement in reading and writing skills among early graders. Nonetheless, the teachers expressed that the dissension between the T2E+ and Jolly Phonics is causing much confusion in their class since they do not know which of the innovations to adopt wholly.

Rural and extremely deprived areas

- ✓ Intervention schools showed lower numbers of trained teachers in general in their classroom
- ✓ Fewer Teaching Learning materials
- ✓ They are not getting support from the capitation grant (lower population to their urban counterparts)
- ✓ Classrooms are not well secured which deters teachers from developing and/or buying TLMs

5.2 Recommendations/Implications

Based on the findings of the study, the following recommendation are proffered

5.2.1 Government/Policy

- The Government of Ghana through the Ghana Education Service should supply schools with adequate teaching and learning resources to successfully implement play-based learning.
- The SISOs, ECE coordinators and other supervisory officials should be empowered and provided with logistics to enable them to supervise teachers and help where the need to be.

5.2.2 Approaches for scaling up

• It is recommended that the Government of Ghana, the Ministry of Education, and other NGOs should come on board to continue from where Sabre Education and RTP have reached to scale up and to sustain what has been done.

5.3 Key Lessons Learned and ongoing research areas for further investigation

Some of the key areas which need further investigation by ISSER in the coming quantitative phase of the research would help deepen our analysis of the value addition that early learning makes and play based approaches make in under-resourced schools. One of the key constraints found in the implementation of play based approaches was that there was overcrowding in classrooms and that teachers were not fully confident in using play based approaches in large classrooms.

In very under-resourced schools some teachers also refused using teaching learning materials for fear that the community members would take these out of the classrooms. In the context of pre primary schools in rural deprived and extreme deprived locations basic infrastructure is required to safely implement outdoor requirement and ensure that maintenance culture is created in the communities;

The quantitative team should look at the cost effectiveness of the play based approaches and how communities/districts and schools can contribute to ensuring that the conditions of learning are set up to better enhance these approaches;

- ✓ Cost of training, supervision and equipment per school (Northern and Eastern regions)
- ✓ Cost of intervention per school (Sabre Education and Right to Play)
- ✓ Data tracking sheet indicating the other interventions ongoing in each of the sampled schooled ---on teacher training experience with RTP and Sabre and other key providers (comparing to schools with Jolly phonics, Lively minds and USAID learning project)

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Annexes

Project	ucational innovators in the early learning space and their programmes Description of programmes
USAID/Learnin g – Early grade reading programme	 The project's main objective was to improve the reading outcomes at KG2, P1 and P2 levels in public primary schools targeting 1.1 million learners (USAID Ghana, 2017).
	✓ The program has a solid approach for teaching learners how to read using building blocks that include the introduction of letter sounds in syllabic formats to enable learners to read at their own pace and build confidence (FHI 360-USAID, 2020).
	✓ The project's reach covered 100 districts across ten regions.
	✓ Based on Ghana's Language of Instruction (LOI) policy from MoE, eleven approved Ghanaian languages were to be used as mediums of instruction at the KG through to lower primary levels, transitioning to English at P4.
	✓ Materials provided to teachers included a teachers' guide, alphabet strips, conversation posters, take-home readers and flashcard packs all in the eleven Ghanaian languages.
	✓ To carry out the project, a training delivery system was designed. A group of National Trainers (120) trained the district teacher support team (1000) who finally trained head teachers, teachers and curriculum leads at the school level.
	✓ To further solidify government's support and involvement in the project, district management and support teams (GES statisticians, EMIS supervisors, learning staff, MEL officials and circuit supervisors) were established.
	✓ To properly monitor the implementation and outcomes of the project, each district was tasked to produce a Reading Action Plan which clearly marked out the reading goals learners could work towards.
Lively Minds - Play schemes experience	✓ The program aimed at tackling existing challenges to ECE by first equipping marginalised mothers with knowledge in providing education to their wards through play and offering them skills in utilising locally sourced resources in creating educational games.
	✓ A critical feature of the program was scalability, and thus it was designed with a cost as low as possible, utilising readily available human and locally sourced resources (Amadu et al., 2019).
	✓ The program was implemented in treatment communities from October 2017 to July 2018 in forty treatment schools.
	 Local government officials were engaged to train and support community trainers.
	\checkmark These community trainers in turn coached and mentored the

Annex I: Other educational innovators in the early learning space and their programmes

	volunteer mothers in Play Schemes and supervised parents to adopt better parenting practices at home.
	✓ Officials from GES were provided with an orientation workshop, an introductory meeting with head teachers and PTA of selected schools for implementation, as well as the signing of an MoU clearly defining their specific roles.
	✓ Going through a rigorous five-day training session; teachers were coached in several modules including the essence of play in teaching and learning, play based pedagogy, effective classroom management and the training of volunteer mothers.
	The program offered training to approximately thirty to forty marginalised mothers in the utilisation of play schemes which employed learning through play for their wards.
Professional	
Learning	
Community	
(PLC)	
T-tel	
NALAP	
Volunteer	
teachers	

Annex II: Research instruments