

Developing Literacy And Numeracy In Early Childhood Education In Ghana: The Role Of Traditional Ewe Play Games

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Abstract – There is the need for the training of Early Childhood Education Teachers to appreciate and exhibit the integration of indigenous knowledge in the teaching and learning process. This paper aims to create the awareness in the society that the time to encourage and support Early Childhood Educators to use indigenous knowledge in facilitating themes and concepts in the classroom is ripe. This knowledge is common in our Traditional Ewe Play Games hereafter called TEPG. The integration of traditional play games in teaching and learning at the Early Grade Level is one sure means of arousing learning interest in children. Traditional play games, sustain their interest towards learning and opens up multi- sensory learning behavior in them. Educational benefits of traditional play games cannot be overemphasized. Indigenous plays allow a multisensory spectrum of scaffolding, assessment and responsive feedback for coaching. The paper suggests that when Pre-service Teachers are properly trained to acquire the knowledge and skills in the use of indigenous play games at their training levels, they would be well equipped to facilitate the Pre-tertiary Education Curriculum hence producing functional citizens for the nation. This qualitative research adopted exploratory design to collect data through observation, interview and available literary materials. Descriptive approach was used to analyze the data.

Keywords – Traditional Ewe Play Games (TEPG), modification, pre-service teacher, literacy, numeracy.

I. INTRODUCTION

The adoption, modification and integration of play games in educational practices as teaching and learning approach is the focus of this paper. World Bank report on education (2019) in Sub-Saharan African countries is dubbed *Ending Learning Poverty: What will it take?* This report bemoans the low level of literacy proficiency among primary school learners. The report suggests that the progress made so far in reducing learning poverty is far too slow to meet the aspirations of SDG 4. It estimates that by 2030 about 43% of children at age ten will still be learning-poor. The report laments that teachers in many countries are not providing the types, sequences, and amounts of instruction students need to acquire literacy skills. Betéille and Evans (2018) suggests that a good pre-service education program is one effective approach towards equipping pre-service teachers with content, pedagogical and managerial knowledge and skills to become effective teachers. One key area that needs attention during pre-service training would be teaching methodologies that foster life-long learning. Teachers are expected to be trained with both traditional and non-traditional skills of imparting knowledge before they join the teaching profession. Traditional skills include content and pedagogical knowledge while non-traditional skills include being able to foster socio-emotional skills among children. Promotion of collaboration and social activities among students increase their involvement and participation in team learning. Trajkovik, Malinovski, Vasileva-

Stojanovska, and Vasileva (2018) suggests that when students share their own ideas and respond to others' reactions their level of thinking and understanding deepens. Due to a strong connection between culture and learning, educators are expected in the 21st century to use culturally responsive pedagogy to facilitate learning. It also aims at encouraging community and family engagement in educating the child (Ford, Stuart & Vakil, 2014). Educational properties embedded in TEPG when effectively modified and facilitated, can turn the classroom into creative environment for academic interaction hence promoting creativity and life-long learning. By this effort, the classroom becomes an extension of the home; a play-based learning environment. Better collaboration between teacher and learner, home and school would be achieved and learning outcomes improved. However, play seems to have taken a backseat in early grade classrooms to teacher-directed instruction. This unproductive practice is based on the belief that play does not effectively prepare children to perform well on standard-based assessments (Kekesi, Donkor, Aburampah & Torkonyo, 2019:505). Several challenges account for the non or less use of play as teaching approach by teachers. Notable among them is the lack of motivation by teachers to use play to facilitate concepts and themes. Teachers need to demonstrate to children that they care for them by participating in their play activities. By using play, children's learning abilities and emotional well-being will be transformed and promoted. Informed by the gap, the paper intends to answer the following research questions;

1. What educational properties are available in Ewe Traditional Play Games?
2. How can Ewe Traditional Play Games be used to facilitate literacy and numeracy in an Early Grade Classroom?

II. THEORETICAL BACKGROUND

Huizinga (1949:1-2) a classic play theorist opines that play is a cultural phenomenon that both humans and animals share. Play is more than a mere physiological occurrence or a psychological reflex. In play there is something "at play" which transcends the immediate needs of life and imparts meaning to the action. Play constitutes a training of the young creature (learner) for the serious work that life will demand later on. Play is voluntary and takes place within its own proper boundaries of time and space according to fixed rules and in an orderly manner (p.13). Vygotsky (1978:102-103) highlighting how children learn project the social constructivist theory. The assumption of the theory encourages social interaction among peers as an appropriate strategy of learning. Games, simulations and problem-solving activities are identified as examples of classroom practices in this theory. In play children perform actions of imagination in an imaginary situation. They create voluntary intentions. They form real-life plans and pursue voluntary motives in play. This is what makes play the highest tool of pre-school development strategy. The theory states that children do not only practise what they already know but also learn new things. In Vygotsky's cultural-historical theory, play is an important part of early childhood. Vygotsky believed that play promotes cognitive, social, and emotional development in children (Scharer, 2017:63). The oral transmission strategies in plays drive children to practice what they already know and learn new things as they perform various activities in play. The theory of learning by doing propounded by Dewey (1938) stipulates that the child interacts with the environment to adapt and learn. Accordingly, classrooms are expected to be representatives of real life situations. The classroom should have the opportunity to allow and support children to participate in learning activities interchangeably and flexibly in a variety of social settings. Play games is one social interactive activity that encourages learning by doing sometimes using simulation and real situations.

III. METHODOLOGY

The paper is a qualitative research with uses exploratory design to collect the data. Observation and interview were used to collect primary data. The secondary data was solicited from research papers. According to Stebbins (2011) the focus of exploratory design is to gain insight and familiarity with basic details, settings and concerns of research problems that has little or no research details at their stage of investigation. It helps to generate new ideas and assumptions about the research problem. Due to its scope less number of respondents are used but has the potential to generate a large volume of data. The data for this paper was collected mainly between February 25th and July 10th, 2020. During the period basic school learners were at home due to the COVID 19 pandemic. The children engaged in various forms of traditional play games with their peers and elders. The researchers observed children play some of these games in villages in Ziope Traditional Area. The people of this area speak Avenor dialect of the Ewe language in the Volta Region of Ghana. Materials and concepts described in the games are glossed into English. The researchers interacted with parents and gathered further information in addition to what was observed during children's active play time. Researchers observed all the WHO COVID 19 prevention protocols by wearing face mask and keeping at least one meter distance between the game participants during play and same was observed between the respondents during interview sessions. Some of the data was also solicited from secondary sources to confirm the names of the play games and their descriptions.

IV. LITERATURE REVIEW

Right to Play (2020) maintains that different types of play give children the opportunity to learn different things. In the classroom, games help children to actively engage in their lessons, enhancing their learning. Play ignites passion for learning by providing resources that make learning and life-skills development active, engaging and fun. Outside the classroom, they play through performance, music or dance to gain critical life skills. Play instils positive values in children and develops healthy behaviour. It allows for self-expression and creates space for dialogue through art, role play, drama and performance. Play is a child-led and self-directed activity (<https://www.righttoplayusa.org/en/our-work/#:30/10/2020>). For a wholesome psychocognitive functioning of a child, Manyara and Murungi (2018) observed that motor development of young children is a powerful pivot that drives cognitive abilities in their formative years. Early gross motor abilities have been associated with several cognitive processes that are fundamental for academic learning: processing, speed and memory. Traditional play games and songs are generally effective no cost strategies that parents, caregivers and older siblings use to teach not only appropriate norms and values but also various concepts taught by teachers in Kenyan schools. Children acquire fundamental social and emotional skills for life long living through play games (Mweru & Murungi, 2013:496-497). Movement is one dominant component of all Ewe traditional play games. Movement has been observed to be an integral part of the play games. It is either a light movement of fingers in drawing, picking, use of the arms in throwing and catching, legs in pushing or rigorously by using whole body in running, pulling, jumping, dancing etc. When children perform the art of movement in play games, they act out the social context of meaning of words and sentences. The traditional play games are cultural specific and rich in the development of the linguistic competences of young children. A good mother tongue acquisition is a better foundational tool, for literacy, numeracy and science. Traditional play games support free manipulation of the indigenous language forms available in the environment. In effect, development of literacy skills such as phonemic awareness, vocabulary, comprehension, prosody and writing are ensured vide play. The resultant application of these language skills enhance bridging from the first language to the second language smoothly with less difficulty (NaCCA, 2019:v). Manyara and Murungi (2018:254) compare language development benefits in play to other instructional strategies by saying children use more words and complex sentences during play than they do in other types of classroom activities. Their practice of age appropriate language in play is likely to promote communicative competence. Children who engage in traditional play games at home and also access same form of games as learning strategies in school will acquire a wide stock of vocabulary. They would also understand grammatical structures as well as linguistic conventions for easy listening, speaking, reading and writing. This will result in producing good communicators, effective collaborators, critical thinkers, lifelong learners and problem solvers for the nation (NaCCA, 2019:vi-x). Singer, Singer, D'Agostino and DeLon (2009:286) found make-believe games to be effective to help a child expand vocabulary and link objects with actions, develop object constancy, learn strategies for problem solving and develop divergent thinking ability. In effect, these role play games develop the child for future adult life to propel the society towards peaceful coexistence, economic emancipation and self-reliance. Play supports children's ability to role-play, reflect before acting, the ability to show empathy, and development of their emotional understanding and self-regulation. Cooperation, negotiation, problem-solving, group work, and getting along are also simulated in children's play even without adult intervention. Both learner-initiated and teacher-guided play are important to children's social and academic development (Kekesi, et al., 2019). Eberle (2011:19) maintains that play educates us broadly and deeply early and throughout our life. At the very beginning of our lives, we learn language in game-like interchanges with fluent speakers. Later we sharpen our vocabularies with wordplay. We explore the concepts of number and sequence in games. We tune our ears to songs, chants, and rhymes. We play with our sense of space and train our appreciation of color with finger paints. A good number of Ewe play games are accompanied by relevant play music which makes them drama oriented. To sum up the educational merits of traditional play games, Vasileva-Stojanovska, Vasileva, Malinovski and Trajkovik (2015:2) argues that the introduction of traditional games into the learning activities enhances motivation in all the components of instructional pedagogy promoting:

- sustainable attention by ensuring active participation of all the learners in the game based learning activities,
- relevance by utilizing familiar playing activities to achieve the newly set up learning goals,
- confidence by providing a relaxed environment in which students have control over the actions needed to achieve the objective,
- satisfaction, which is an intrinsic attribute of the games offering positive feelings of equity, unity, vividness, fairness, that can be effectively used during the learning activities.

The Pre-service teacher factor

World Bank report estimates that by 2030 about 43% of children at age ten will still exhibit a high level of learning deficiency. The report laments that teachers in many countries are not providing the types, sequences, and amounts of instruction students need to acquire literacy skills. The report further suggest that children improve their literacy proficiency when taught first in the language they speak. Betéille and Evans (2018) suggests that a good pre-service education program is one crucial step towards equipping teachers with content, pedagogical and managerial knowledge and skills to become effective in their delivery. This presupposes that during the training stage, the pre-service teacher is equipped with indigenous knowledge in play games in the language of instruction. Mweru and Murungi (2013:497) observed that many schools in developing countries are faced with various support challenges including the lack of resources needed during classroom instruction. This lack of resources has usually affected learning outcomes of learners resulting in pupils' failure to understand various concepts taught in schools. As a result undesirable performances are recorded in national and international examinations. However, resources needed for play games are readily available in local communities. Schareer (2017:62) laments:

many prospective ECE teachers I have worked with (especially ones teaching kindergarten and elementary grades but also some prospective preschool teachers) hold the preconception that play is something they can allow children to do between blocks of instruction, something that children will do unprompted and that does not need their input, something that gives teachers or educators time to do other things. These prospective teachers' idea of play was either centre time (playing house, blocks, reading corner) or outdoor play (playground time). I found that even when these prospective teachers learn about the benefits of learning through play, they still worry about parental opposition to playtime in the classroom and that playtime will take away from their ability to complete their curriculum.

Eberle (2011:19) bemoans the contemporary society that we deliberately do not set out to learn by playing. The aim of an Early Grade Education in the 21st century should be focusing heavily on the renewed agenda of the development of the 4Rs; **R**eading, **wR**iting, **aR**ithmetic and **cR**eativity (T-TEL, 2019:1-12). This agenda aims at producing functional citizens for the future of the world. The use of creative pedagogy is necessary in providing classroom practices that require innovative teachers equipped with relevant teaching approaches. One sure way of targeting this objective is harnessing both human and cultural resources in training the pre-service Early Childhood Education Teacher (ECET) in the pedagogical knowledge and values in the traditional games of the language of instruction (LOI). The linguistic community of the school is rich in vocabulary, low cost and no cost resources to ensure teacher learner interactions focusing on achieving positive learning outcomes. The desire to break away from the usual mode of teaching to encouraging healthy interactive classrooms has become necessary due to increasing complexity of learning needs of children. These approaches support scaffolding learners' progress in their learning process. Creating instructions to facilitate creative learning is achieved by producing creative teachers to function appropriately in the school environment.

Several make-belief plays can be modified from adult real live activities and adopted to teach various themes and concepts in the Early Grade classrooms. Scharer (2017:67-68) suggests that imitation of museum in the classroom helps to teach arithmetic concepts like, counting, sorting, record keeping, statistics, calculating change and balance during sale of tickets and wrist bands. Such literacy skills as writing, reading, drawing, vocabulary are also developed. Social skills like collaboration, problem solving, presentation of alternative solution to problems etc are developed when children develop museum artefacts and exhibit them. In this regard, role playing of museum practices including, production and exhibition of artefacts, receiving and processing visitors at the reception. Restaurant duties help the child to learn literacy and numeracy skills. Role playing these adult duties fosters flexible opportunities for healthy communication, peer collaboration, peer problem solving and turn taking among children and prepares them for life.

Challenges of using play as a teaching approach

Teacher motivation is one key factor affecting the use of play to facilitate concepts and themes. This important aspect of child growth and development requires well motivated teachers for their full participation in children's activities. The motivation factor is a global issue that need to be looked at by all Early Childhood Development Education stakeholders (Manyara & Murungi, 2018:254). Some early grade teachers in the classrooms may not have adequate knowledge of the traditional plays hence not interested in their use to facilitate learning in the classroom. Hygiene needs of teachers are not fully catered for in many schools. Play involves use of dirt prone materials and activities. Teachers need to change into play costumes before and during play instructions. The inability of schools to provide essential play materials demotivate teachers from using play instructions to teach in the classroom. Another challenge is the packed nature of the instructional time table for schools. The curricular time table is handed down to the teacher by MoE/NaCCA/GES. The teacher has no responsibility of modification to integrate play instructions.

The teacher is constrained by time and fidelity of implementation. Play instruction is a time consuming enterprise by nature. Learners must play and enjoy play to their satisfaction to motivate their readiness to participate in the next episode.

Play requires time and space to function. Most of our classroom set ups cannot support play activities. Societal perception about play is one disadvantage of its use in the classroom. Society expects children to display pure academics fostered through rote learning. Many parents and guardians frown upon traditional play and may not support children to learn by doing in the domain of traditional play games. Teachers face parental opposition to playtime in the classroom arguing that playtime will affect their ability to complete their curriculum (Schareer, 2017:62). One other challenge has to do with the language of instruction. In some of the classrooms, the teachers are not speakers of the LoI which accommodates the play hence cannot encourage its integration as a teaching approach.

The role of teachers in the use of play as a creative pedagogy.

In schools, teachers are expected to provide adequate play materials for children's play using their fine and gross motor skills. The teacher is also expected to participate in children's play appropriately and timely. Teachers are expected to create Play Learning Environment (PLE) that supports effective engagement of the learner devoid of unnecessary interruption by non-playing mates. During active play time, the total being of the learner becomes fully and usefully activated for academic work through play. The teacher, in the facilitation of Play Based Learning enterprise acts as a co-learner. Teachers need to research into the indigenous play games available in the culture of the school society. This equips the teacher in the domain of material, language, rules, costume, time and support where applicable. This directs the teacher in effecting relevant and appropriate modifications necessary in executing the play game to facilitate educational concepts in the classroom.

V. FINDINGS

Materials, rules and modification of three TEPG namely; **adifɔɔ**, **papa kple dada** and **tolovi** are analyzed to demonstrate their educational properties that would be applicable in the classroom.

Play 1: Adifɔɔ (Pebble picking)

Materials/playing space: The object used to play this game is mainly **nefi** (palm kernel). Pebbles can be improvised or any other seed of the size of palm kernel is applicable. Five palm kernels are needed; one of which is identified as the head pebble. It is usually bigger than the others. An open space where two or more participants can sit is required to play the game. Pebbles picking can be a helpful method for introducing mathematics to youngsters. Some of its practices are intended to encourage counting and help to explore the physical characteristics of the stones, such as shape, size and weight. A pebble has something special-the way its smooth form fits into the palm. Pebbles are also interesting to explore with their range of textures. They would probably have used natural objects such as small pebbles when learners first began to count, and it seems appropriate to introduce them as a resource for early grade learners as they develop this valuable ability. For many other mathematical operations, including sorting, weighing and exploring shape, pebbles, can also be used effectively (MA Education, 2015).

The game:

The game is played by two or more competitors. The first person to play the game is determined by the competitors. It has four stages of play.

Fig 1: Stages of playing Adifɔɔ (Pebble picking)

Stage	Name of stage	Number of pebbles			
		1	2	3	4
1	Oɔenke				
2	Ovee				
3	Otɔe				
4	Onee				

At stage one, the playing competitor loudly says “*Odenke*” (one) and throws the palm kernels or pebbles onto the ground. The head pebble is picked by the player. The player throws the head palm kernel into the air and quickly picks one of the palm kernels on the ground and catches the head onto it with the same hand. He then drops the head pebble he picks from the ground aside and repeats same step till the other three on the ground are picked in turns. He collects the five palm kernels in his hand again. He says “*Ovee*” (Two) at stage two and throws them on the ground skilfully and creatively such that they are grouped into a pair and a three or into two pairs and one. The player then picks the head palm kernel to keep two pairs on the ground. He throws up the head palm kernel and briskly picks a pair of the two pairs on the ground and catches the head onto it. He repeats the step for the remaining pair. At stage three, the player says “*Ote*” (Three) and throws the five on the ground to have a pair and a three. This time he picks the head to have one and a three on the ground. He throws the head kernel up and briskly collects the three and catches the head onto it. He drops the three, throws the head again and quickly pick the one and on the ground then catches the head onto it. At stage four, says ‘once’ “*Onee*” (Four) and throws them onto the ground and pick the head pebble, leaving four palm kernels on the ground. He throws the head up and briskly collects the four at a go and quickly catches the head onto it to make five in his palm. The head pebble is the most needed and active material during the play.

Rules:

Only the head pebble must be used as the playing object by all players.

At the specific stage, one must collect the number of pebbles he is playing from the ground.

The player must always catch the head pebble onto the number he is playing.

If one misses the playing number he is declared “*ku*” (dead/lost the playing right) and transfers the playing right to the next competitor to play in turn.

The other is ‘**the rule of touch**’. A player’s fingers must not touch any of the palm kernels he is not picking. If it does, the player dies (lost the playing right). It is optional

Modification: The game can be modified to teach word reading. The number of letters and or syllables in a word requires the kind of modification to suit the word the teacher wants to teach.

Development of literacy: phonological awareness (a component of reading), syllabification, chunking, blending which are all reading strategies can be developed using this play. From a basket of words, learners can compete for words having the number of pebbles. It also helps to develop automaticity of word recognition and attack (*reading*).

Development of numeracy: counting, grouping, ordering, subtraction and addition (*arithmetic*).

From the play the learners perform various activities numerically and it becomes part of their arithmetic building competency:

1. Recites numbers in order of magnitude.
2. Sometimes matches numerals and quantity correctly.
3. Counts objects and beginning to count beyond 10.
4. Counts an irregular arrangement of at least ten objects.
5. Categorise objects according to properties such as shape and size.
6. Orders two items by weight
7. Uses familiar objects and common shapes to create and recreate patterns.

Development of Science: Teacher can briefly create the awareness of gravitational force, distance, size and speed in this activity.

The teacher’s role:

Teacher must consult the local school community to acquire requisite knowledge about the game; name, materials, rules, how to determine a winner etc. Teacher collaborates with learners to provide the appropriate no cost and low cost materials available in the school environment in required quantity guided by the enrolment of the class. Teacher groups learners according to learning needs to ensure effective collaboration. The teacher must identify an aspect of the game that teaches a particular skill/concept. Use his/her pedagogical knowledge to integrate the playing of the game into the teaching and learning process.

Crosscutting issues: Although the play does not discriminate against gender such that boys and girls can play, it has a slight issues with inclusivity where amputated learners cannot be active players. However they can however be observer participants or referees.

Core competencies developed: Collaboration and communication, personal development and leadership are developed through this play.

Development of Values and attitudes: The play has the propensity of developing in the learners the values of turn taking, endurance, honesty, conceding defeat, group work, fairness etc.

Development of skills: Fine motor skills, good hand-eye-mind coordination.

Play 2: Papa kple Dada (Father and Mother)

This is one type of make-belief or imitation game. It is by structure a role play game (Amlor, 2016:67). In this game, children imitate and mimic daily human activities performed by adults including social, political, religious, economic and household activities in various forms. In groups children perform traditional gender roles on play grounds. A miniature home set up is improvised such that all participants have a role to play. Girls imitate traditional female roles by engaging in household chores such as cooking food in pieces of broken pots, bowls and tins. Other activities are bathing, feeding and cuddling dolls or pieces of wood assumed to be newly-born babies. The boys role play male roles as husbands, elders, chiefs and imitate how the men folk undertake traditional vocations like farming and hunting. They also perform child upbringing roles by punishing wayward acts by other members of the simulated society.

Materials for the game: Mainly waste materials; empty cans, broken pots and plates, head gears, torn footwear, sticks, used artificial hairs, etc. To be sincere, the materials are dictated by the roles to be played hence this study cannot exhaust the list.

Rules: The game is not rigidly governed by any structured principles to be observed as social life revolves mainly around social norms. These norms are encouraged during this type of play. A participant should not reject or refuse to play a role assigned to him or her. Exhibition of group tolerance, respect and commitment is encouraged by all (Amlor, 2016).

Modification: Depending on what theme/sub-strand the teacher is facilitating, this play can be modified to support the teaching of the specific concept. Personal hygiene for instance can be facilitated by creating a simulated home in the classroom where learners are bathing, cutting overgrown nails, trimming hairs at the salon, sweeping, washing of dishes etc. A project work to desilt choked gutters and clearing bushy areas in the school environment can be taught in pretend games. This kind of games are common in African societies. They help to promote social development of the children instilling high sense of self-control, tolerance, critical thinking, collaboration and the ability to exhibit good performance skills similar to what their parents do. It is common to see children performing leadership roles in these plays as chiefs, elders, church leaders, teachers, hunters, linguists etc. Lessons drawn from this indigenous play games also enhance the use of different societal skills that prepare children towards future adult life (Lancy, 2007; Amlor, 2016).

Development of literacy: children develop oral language skills including listening and speaking. They develop mother tongue vocabulary which fosters second language acquisition. Vocabulary is one of the major components of reading which can be developed through various play games. As children interact as a whole family or community to imitate adults – children roles, language becomes the vehicle that drives their acts to completion. Children through these role plays develop various lexical vocabulary of the various themes they explore in the play. Songs which accompany some of the roles are good sources of language development. Language of commerce is developed when children act as buyers and sellers in a market scene or shop scene during the make believe play.

Development of numeracy: counting of money in buying and selling, ordering of family members by age, identifying the quantity of materials needed for an activity etc. (*aRithmetic*).

The teacher's role:

Teacher selects the various themes in relation to the sub-strand to be facilitated through the role play. Creating a learning theatre in the classroom or in the school environment is a duty of the teacher prior to the facilitation of the play. Teacher groups learners according to learning needs. Teacher has to develop the role sheets in advance.

Crosscutting issues: Pretend play does not discriminate against gender such that boys and girls can play since there are socially challenged parents and children in the society as teachers, nurses, doctors, lawyers, drivers etc.

Core competencies developed: Collaboration and communication, personal development and leadership.

Development of Values and attitudes: parenthood, turn taking, endurance, honesty, group work, fairness etc.

Development of skills: Fine motor skills, good hand-eye-mind coordination.

Play 3: Tolovi (push and measure)

Tolovi is played by both sexes. It can be played by two to five competitors. It is played using one toviku (tovi seed). Any round object can be improvised for the purpose. To play the game, a sandy field is needed. A circle is drawn and the players sit around it. The toviku/playing object is placed at the centre of the circle. The first player is determined through a kind of toss. The player curves the first finger and pushes the toviku forward. The toviku rolls on the ground and finally settles. The distance covered is measured by span. Two or three fingers are used to rule lines from the circumference of the circle to the point the playing object stops. A second player takes the turn to play, measure and draws the lines. This process continues in turn. When it comes to the turn of the first player, he/she extends the line from where it ended earlier. The process continues till a winner is determined. After a number of pushes, the total distance covered is measured for all by a referee/observer. A person who has the longest distance is declared the winner.

Rule: Only one playing object is used by all players; individual players must not use their own playing objects. A player must not intentionally cheat to win the game. A player who feels he/she is being cheated must not exit the game but report to the referee/observers.

Modification: The main arithmetic concept embedded in this play game is counting and measurement. Other social concepts include accuracy, vigilance, turn taking and tolerance. The main literacy skill fostered by the play game is writing and drawing. However, the game can be modified to facilitate, reading. The number of hand counts can be equated to a number of sounds/letters/syllables in a word. A learner after measuring the number of hand counts looks for a word that has same number of sounds/letters/syllables according to the teacher's instruction. The learner identifies the word and decode the word. Such words can be arranged along his line during the play. After the game, the words can be rearranged to form a sentence, phrase or a short story.

VI. DISCUSSION OF FINDINGS

The study found that the pre-service teacher need to be trained to acquire the knowledge and skills of traditional play games. The training would fascinate the teacher to appreciate the integration of play into classroom activities. This mandate lies at the onus of the college tutor to integrate play based learning activities into teaching the pre-service teacher at the college level. During teaching practice the pre-service teacher is expected to demonstrate the integration of play into teaching activities. The college tutor should make conscious efforts to provide responsive feedback to the pre-service teacher and also provide coaching services about the integration of play into the teaching activities. The reflection aspect of the coaching process would ensure mastery of the knowledge and skills of learning through play. The pre-service teacher who is well trained in this direction would use the knowledge in teaching and learning activities in the basic education classroom.

It is also observed that TEPG can be used to facilitate literacy and numeracy at the early grade levels and beyond. Observing play 1, a teacher can use it to teach word reading. Learners can be supported to identify five letter words, say; "akutu". At stage one of the play, learners can identify the various phonemes as / a k u t u /. The learners at stage two can easily blend these phonemes to form syllable [a ku tu]. They can then blend the syllables [a + ku + tu] to form the word [akutu]. This process of separating the five letter word into its composite letters and syllables are demonstrated as the number of pebbles at the various stages of the play. In the activity, the head pebble is identified as the initial sound performing active role in the process. The teacher can modify the play to accommodate the number of letters and syllables in the particular word to be taught. In teaching numeracy one can use the play to teach counting and sum of numbers.

Target word: a k u t u

Stage 1: 1 2 3 4 5 [1 + 1 + 1 + 1 + 1]

Stage 2: a ku tu [1 + 2 + 2] = 5

Stage 3: aku tu [3 + 2] = 5

Stage 4: a kutu [1 + 4] = 5

grouping and regrouping.

Later, the play can be used to teach factors of numbers.

The knowledge gain from the play activities empowered the learners to perform the activity in the figure below:



The figure above would help the child develop various competencies now (numeracy) and later (arithmetic thinking).

Understanding size, shape, and patterns, ability to count verbally (first forward, then backward), recognizing numerals, identifying more and less of a quantity, understanding one-to-one correspondence (i.e., matching sets, or knowing which group has what number of elements)

Number Sense: This is the ability to count first forwards correctly. The ability to see relationships between numbers, including adding and subtracting, is a more nuanced skill linked to number sense. They were counting with their teacher: "One, two, three, four, five, six...". Number sense is a set of skills that help children to work with numbers. Understanding definitions such as more and less, and bigger and smaller. Understanding symbols representing numbers and making comparisons of numbers.

Representation: By using terms, images, symbols, and objects to make mathematical ideas "real" (like pebbles). The teacher asked students to carefully set out four plastic plates and four plastic cups: "You can come to a party with your whole family!" Assuming that their family consisted of four members, learners would be able to apply this knowledge to the number of plates and cups they wanted. Naturally, children are visual and can construct associations between numbers and a depicted entity. To explain a relationship, using representation or pictures allows the use of mathematics real to the mind of a child.

Spatial Sense: Kids will call this "geometry" later in school, but it incorporates the concepts of form, scale, space, location, direction and movement for toddlers. For children, in relation to the people and things around them, spatial sense is mainly about their awareness of themselves. In their art and craft activities, encourage children to use shapes. Try to teach them how to diagonally fold a square piece of paper and to cut to create two triangles along the fold. You may also allow them to use their cut-out shapes to create an image.

Measurement: This scientifically uses units like inches, feet or pounds to find the length, height, and weight of an object. Time calculation (for example, in minutes) also falls under this skill aspect. Playing in the classroom or playground with bits and pieces, such as old crab shells, leaves and pencils, offers opportunities to incorporate vocabulary for measuring. As children play with everyday objects, terms such as measure, taller than, shorter than, wider than, narrower than, length, volume, weight, area, centimeter, meter, inches, feet, yards (choose according to location), heavier, lighter can be used. (Refer to play 1)

Estimation: This is the ability to make a reasonable guess about something's volume or size. For small children, this is really hard to do. By teaching them the definition of terms like more, less, larger, smaller, more than, less than, but can be supported through plays.

Pattern: Patterns are objects that repeat in a logical way: numbers, shapes, pictures. Patterns help kids learn to make assumptions, understand what's next, communicate logically, and use thinking skills. It was found that the capacity of children to detect mathematical patterns, more than other abilities such as counting, may predict later mathematical achievement. Again, it was found that pattern recognition can differ greatly between people: we have all seen kids who organize objects in radial patterns or make reflective symmetry constructions, while others pay little attention at all to patterns (Gifford, October, 2017).

Problem solving: There is more than one path to the answer to the ability to think about a dilemma, to understand. It means finding an answer using previous experience and critical thinking abilities. Teachers can encourage the problem solving of children by offering expanded learning time blocks, rearranging classroom spaces to foster teamwork, and presenting a range of resources for use by children (Britz, 1993).

The study also found that play games can be used as an assessment strategy in the classroom. For the purpose of developing a functional citizens for the nation, assessment in education is expected to be procedural, continuous, regular and timely. Assessment

is expected to be multisensory and not limited only to the pen and paper (memory and recall). The focus of assessment must be geared towards application of knowledge, demonstration of skills acquired and learned. Play is one teaching strategy that has inbuilt assessment mechanisms. Arithmetic concepts can be assessed through make believe play games that involve, counting, measurement, buying and selling etc. Literacy (reading and writing) assessment can be assessed in plays focusing on prosody, oral language and songs. Assessment in the form of project works can be organized in plays where all learners are actively involved. Plays ensure higher learner involvement and participation in assessment. Assessment as learning (AaL) can start from collection and assembling of play items and costume. Assessment for learning (AfL) can occur when learners take up and switch various roles in a particular play. Assessment of learning (AoL) is fostered when learners use play games to resolve real life challenges in society, ie, settling of disputes amicably as parents, group leaders and chiefs. Others include performing such traditional plays during communal labour, festivals and community celebrations to entertain the society and sensitize the society on a specific phenomenon etc.

Plays can also support assessment at the early grade levels. Plays are used to engage the attention of the class while the teacher concentrates on individual learners to assess them in turns. In a classroom where a teacher is conducting Annual Status of Educational Report (ASER) – a reading test, play can be used to engage the other learners in class to prevent interruption of the assessment process.

We found out that play is one of the indigenous cultural knowledge forms that is universal to the globe. Objects used in play are found commonly in the environment and are mainly accessible without cost. For instance the materials (palm kernel or pebble) used in adifofo is available in every household making it possible for easy organization of the game. To integrate play into the classroom practices requires the purposeful readiness of the instructor. Parents and learners would be ready to support the teacher to collect these free learning resources and use. Parents and other education stakeholders would be available to support the teacher to prepare some of the teaching resources for the classroom use. In most Ewe communities, parents feel appreciated when teachers approach them for support in preparing materials for TEPGs in teaching and learning activities. They feel involved and would be ready to help. Members of the local community would be readily available as resource persons to train the teacher on knowledge of play; materials, terms, rules, costume etc.

VII. CONCLUSION AND RECOMMENDATIONS

It is observed that there is a conscious paradigm shift towards the use of creative pedagogy in the classroom. One strategy of creative pedagogy is the use of traditional play games. The play based instructions support multisensory approach to learning.

Play, when carefully modified and used in a play learning environment is a sure vehicle to ensuring acquisition, understanding and application of knowledge to real life situations.

The best educational stage where play can best be used to introduce learners to practicum of multisensory learning is the early grade level. Children at this grade have tender brain and motor abilities that must be developed and shaped so they become functional citizens for nation building.

One sure consideration in achieving mother language instruction is to train the pre-service teacher in the use of indigenous knowledge to facilitate literacy delivery in the classroom. It is apparently incumbent on Colleges of Education specializing in ECE programs and the Universities who have ECE departments to invest their time and other resources into research in the educational values of traditional plays games. The research findings would in turn inform review of their curricular in training the pre-service ECE teacher who is well equipped with play based learning strategies before graduation. This teacher can apply the skills and pedagogical knowledge to teaching through play to enhance multisensory learning.

Informed by the conclusion above, we suggest the following recommendations;

1. Stakeholders in Early Childhood Education and parents should avail themselves to educate teachers in the knowledge of traditional play games during Professional Learning Community (NaCCA, 2019:43-47). Community members can volunteer to support teachers as resource personnel in the use of play in the instructional activities in the classrooms.
2. Through in-service training, head teachers and School supervisors are expected to encourage ECE teachers to develop positive perception towards play as an instructional strategy (Kekesi, Donkor, Aburampah & Torkonyo, 2019:515). NGOs in education are encouraged to invest in workshops that aim at building the capacity of ECE teachers in traditional play games and their integration into the creative pedagogical spectrum for teaching.

3. The mentoring universities of Colleges of Education can also review their curricular to accommodate traditional plays, games and songs as an examinable semester course. This approach would encourage equipping the pre-service teacher for the literacy classroom.

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