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Early Childhood Education Teachers' Use of Teaching Learning Resources in the Implementation of Play-Based Activities within the Hemang Lower Denkyira District of Ghana

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Abstract

The main purpose of this study was to assess ECE Teachers' use of teaching learning resources in the implementation of play-based activities within the Hemang Lower Denkyira District. The study adopted the qualitative research approach. The case study design was adopted for this study. Semi-structured interview guide and observation checklist were the instruments utilized to collect data from ten (10) participants, nine (9) professional Early Childhood Education Teachers and one (1) District Early Childhood Coordinator for this study. The purposive sampling was used in selecting the participants for the study. The data were analyzed thematically with the help of Taguette, an online qualitative analysis software. The findings of the study revealed that, Early Childhood Centres do not have audio materials like Bluetooth speakers for oral and listening activities. The study also found that, most schools have no access to electricity and so lack television set and computers to aid in audio-visual lessons. Lastly, it was revealed from the study that, most Early childhood teachers used improvised materials instead of realia to enhance first hand experiences of learners. The study hence recommends that; The Stakeholders of education such as; Parent Association (PA), School Management Council (SMC), Headteachers, Teachers and the Mission units should resource Early Childhood Centres with enough, varieties, and developmentally appropriate play resources/materials and equipment to facilitate play-based pedagogies at the early childhood centres. It could be concluded from the study that; teachers' ability to meaningfully use TLRs in their lessons and to create the necessary environment and opportunities for their children to have access to the TLRs and to manipulate them is central to the successful implementation of play-based pedagogy. Therefore, relevant resources/materials such as Audio, audio-visual and concrete materials are to be provided to promote play-based pedagogies at the early childhood centres.
Keywords: Play-based, Resources, Teaching, Learning and Early Childhood Education.

1. Introduction

Play over the few years has gain recognition as a tool for teaching and learning in early childhood settings. Fröbel (1899) Felt that play was a way in which children gain insight into their world and as a means of creative self-expression. Learning through play provides the most natural and meaningful process by which children can construct knowledge and understandings, practice skills, immerse themselves naturally in a broad range of literacy and numeracy and engage in productive, intrinsically motivating learning environments (Harley and Reese, 1999). The use of TLRs is indispensable in the provision of play-based pedagogy in ECE centres. The professional manner in which the teacher uses Teaching and Learning Resources (TLRs) and the opportunities children get to have contact with the TLRs, likewise, plays an important role in ensuring quality learning in ECE settings (Papadakis *et al.*, 2018; Yavuz and Güzel, 2020). Teaching and learning resources have been described in many ways by different authors, educators, and curriculum planners. Teaching and learning resources (TLRs) are alternatively known as instructional media, instructional resources, teaching aids or learning aids in various contexts in several educational materials or documents (Akuamoah-Boateng *et al.*, 2004). TLRs are those materials used in the classrooms or workshops for instruction or demonstration purposes by learners and teachers. These may include traditional materials such as chalkboards, text books, handouts, charts, slides, overheads, real objects, flash cards and videotape or film, as well as newer materials and methods such as computers, DVDs, CD-ROMs, the Internet, and interactive video conferencing (Ibeneme, 2000). TLRs afford children the opportunity to have hands-on experiences, which increases and develops their knowledge (Kisitu, 2008). Research affirms that sincere knowledge and productive understanding are achieved through manipulating appropriate TLRs. Dewey, (1966 as cited in Oppong (2021)). This means that better knowledge and skill acquisition by early childhood learners can be developed through hands-on activity or learning

by doing (Yavuz and Güzel, 2020). This highlights the need to examine teaching and learning resources that ECE teachers use to facilitate play-based activities in teaching and learning in the Hemang Lower Denkyira District.

1.1. Statement of Problem

Every person learns by receiving information through the sense organs such as the ears, eyes, nose, tongue and skin (Nkuuhe, 1995 as cited in Anini (2011)). TLRs are needed to create an appropriate environment for effective learning. While much teaching has traditionally relied on the pupils' hearing and seeing, the modern trend emphasizes the use of all the senses – hearing, seeing, smelling, tasting and touching. Again, research suggest that any TLRs used in the classroom should provide the pupils with the opportunity to learn through all or most of the five senses (Nkuuhe, 1995 as cited in Anini (2011)). Study by Tamakloe *et al.* (2005), suggest that, it is important for teachers to be conversant with the materials, equipment or resources which are taken to the classrooms or those that have been procured. This knowledge will ensure that teacher knows what resource(s) are needed for specific lessons or activities, and that they are readily available. When implementing play-based pedagogy, the teacher must make sure to select a variety of TLRs that fulfil a function which is relevant and when used, those resources must emphasize particular points raised in the lesson more effectively than can be emphasized without those resources. Similarly, Oppong (2017) supported that teachers' ability to meaningfully use TLRs in their lessons and to create the necessary environment and opportunities for their children to have access to the TLRs and to manipulate them is central to the successful implementation of play-based pedagogy. The findings led to a suggestion that teachers and providers of ECE should ensure that TLRs are made available and accessible to learners to interact with. Teachers should also devise innovative ways of creating and developing TLRs from their locality. Moreover, they should encourage and promote children's active interaction with the TLRs, as this is a sure way of achieving learning.

However, study suggested that TLRs are not readily available at ECE centers and so the children could not interact with them which hindered the learner's accessibility and active interaction with them (Oppong, 2021). The findings further revealed that interaction could not feature prominently in the provision of the ECE due to the unavailability and inaccessibility of TLRs. Again, the study revealed that most schools lack the needed TLRs and play items to make learning and the free play period more meaningful. Although, some materials were available in some ECE centres in that study, they were in very few quantities and were fixed and so the teachers just made reference to them without the learners having the opportunity of touching or manipulating them. Also, a study in Ghana revealed that, play use in teaching and learning has not been regular, and play materials are not readily available (Abdulai, 2014). Based on the findings of Oppong (2021), the implication is that, unavailability or inadequate TLRs can hamper learners' opportunity to have practical experience of what is being taught. Again, possible factors resulting in teachers' limited use of play for teaching and learning could be due to inadequate in-service training on how best to incorporate play into instructional practices to the merits of the learners, limited time allocations, as well as space and insufficient play resources for play activities (Putch and Ali, 2013). With the foregoing discussions, the problem here is that while research affirm the important role of TLR's in the Ghanaian ECE centers, it has failed to present considerably on how ECE teachers utilize these resources to facilitate play-based activities in teaching and learning for the benefit of the learners, despite the emphasis of the Ghanaian early childhood curriculum to be provided through play (NaCCA, 2019). This study therefore examines teaching learning resources that ECE teachers use to facilitate play-based activities in lesson delivery in Hemang Lower Denkyira District.

1.2. Purpose of the Study

The purpose of the study was to assess ECE Teachers' use of teaching learning resources in the implementation of play-based activities within the Hemang Lower Denkyira District.

1.3. Research Question

How do ECE teachers use TLRs to facilitate play-based activities within the Hemang Lower Denkyira District?

2. The Use of Teaching and Learning Resources during Play-Based Activities

Teaching learning resources (TLRs) are objects in the learning environment that complements or facilitates understanding of a concept (Van Zyl, 2012). Ibeneme (2000), opined that TLRs are those materials used in the classrooms or workshops for instruction or demonstration purposes by learners and teachers. These may include traditional materials such as chalkboards, text books, handouts, charts, slides, overheads, real objects, flash cards and videotape or film, as well as newer materials and methods such as computers, DVDs, CD-ROMs, the Internet, and interactive video conferencing. Research shows that, every person learns by receiving information through the sense organs such as the ears, eyes, nose, tongue and skin (Nkuuhe, 1995). TLRs are needed to create an appropriate environment for effective learning. While much teaching has traditionally relied on the pupils' hearing and seeing, the modern trend emphasizes the use of all the senses – hearing, seeing, and smelling, tasting and touching, (Nkuuhe, 1995). Anini (2011), indicates, any TLRs used in the classroom should provide the pupils with the opportunity to learn through all or most of the five senses. Tamakloe *et al.* (2005), posit that it is important for teachers to be conversant with the materials, equipment or resources which are taken to the classroom or those that have been procured. This knowledge will ensure that the teacher knows what resource(s) are needed for specific lessons or activities, and that they are readily available. When using play-based pedagogy, the teacher must also make sure to select a variety of TLRs which appeal to other senses than that of hearing. Again, in selecting TLRs, the teacher

must make sure that they fulfil a function which is relevant and when used, those resources must emphasize particular points raised in the lesson more effectively than can be emphasized without those resources. Similarly, Oppong (2021) supported that, teachers' ability to meaningfully use TLRs in their lessons and to create the necessary environment and opportunities for their children to have access to the TLRs and to manipulate them is key to effective lesson delivery and quality learning outcomes. According to Kisitu (2008), TLRs afford children the opportunity to have hands-on experiences, which increases and develops their knowledge. Evans et al. (2000), argued that children below the age of eight, in particular, learn best when they have materials/resources they can manipulate. (Dewey, 1966) posits that sincere knowledge and productive understanding are achieved through manipulating appropriate TLRs. This means that better knowledge and skill acquisition by early childhood learners can be developed through hands-on activity or learning by doing (Yavuz and Güzel, 2020).

The implication of this is that, the success in the teaching and learning process through PBA could be influenced by the resources/materials made available to support it and the direct ways in which these resources/materials are used. Therefore, inadequate TLRs could compromise the quality of play-based pedagogy in an ECE centre. This goes to emphasise that in Ghana, a teacher could be specifically trained in the use of play-based pedagogy and is ready to practice what is learnt through the training, yet, could be constrained by the resources made available to facilitate interactive teaching and learning process (Oppong, 2021). This notwithstanding however, Oppong (2017) argues that teachers' ability to meaningfully use TLRs in their lessons and to create the necessary environment and opportunities for their children to have access to the TLRs and to manipulate them is central to the successful use of play-based pedagogy. If, for instance, TLRs are available but only the teacher is allowed to handle them during the teaching and learning process, it can be said that TLRs have been used but without necessarily being accessible to children to bring about quality learning outcomes. Hence, availability and accessibility of TLRs are important towards the use of play-based pedagogy. Thus, learners' ability to engage and interact with the TLRs is pivotal to the use of play-based pedagogy at the ECE centres (Papadakis et al., 2018; Papadakis et al., 2020). Arguably, the kind of perception some stakeholders have about the role of TLRs in relation with PBA in ensuring holistic development of learners can influence its use (Kekesi et al., 2019; Oppong, 2021). It can be argued that stakeholders view about a concept, for example, will influence the effort they put into using, defending or presenting it (whatever the case may be). Thus, if stakeholders are of the opinion that TLRs with active learner involvement is paramount to ECE provision, then they will endear themselves to providing the needed TLRs and allowing learners to manipulate them for effective use of play-based pedagogy (Yavuz and Güzel, 2020). However, when these teaching and learning materials are not available, the teacher can improvise with alternatives that can aid effective teaching and learning through PBA (Nantwi, 2019). According to Ghana Education Service Handbook on TLRs, improvisation is the use of material, which is readily available in the environment in place of the original materials, which are not available or are expensive, delicate or sophisticated to bring about the same learning effect.

Improvisation is one option for ensuring effective teaching and learning. Improvisation therefore refers to a substitute for the readymade or imported materials (Ibeneme, 2000). Aina (2012), believes that teachers must utilize the discarded resources/materials around them to improvise teaching aids for effective teaching and learning through the use of play-based pedagogy. As Opoku-Asare (2004) asserted, the local environment abounds with a variety of raw materials and discarded resources that teachers can improvise for effective teaching and learning. Non-availability of TLRs should therefore not hinder effective teaching and learning through play-based pedagogy in ECE centres. This makes it imperative for teachers to use locally available materials to make their own teaching and learning for effective teaching and learning. That notwithstanding, there are inadequate teaching and learning materials/resources at ECE centers and that has affected the use of play-based pedagogy (Okongo et al., 2015). This was followed by a recommendation that adequate teaching and learning resources should be provided to ensure effective use of play-based pedagogy and more funds to be allocated for procuring teaching and learning materials in order to cater learners' individualities.

2.1. Theoretical Framework

The study employed Vygotsky (1978) socio-cultural theory. The sociocultural theory of human learning describes learning as a social process where culture is a primary determinant of knowledge acquisition (Kurt, 2020). Nagel (2012) argues that sociocultural theory "reflects the view that learning and development is not just a process of increased mental sophistication but is also mediated through social and cultural interactions. Bates (2019) on the other hand opined that, through socio-cultural theory, "knowledge and interactions are constructed through social interactions with family, friends, teachers, and peers. According to Leonard (2002), "sociocultural theory focuses on the causal relationship between social interaction and individual cognitive development." From the above definitions, one could attest to the fact that Socio-cultural theorists believe that learning happens as a result of social interactions and takes place within a specific cultural context (Bates, 2019; Nagel, 2012). The sociocultural theory also explains that children develop their ways of thinking by internalizing the thought patterns of others. In socio-cultural theory, learners and teachers form relationships in the classroom to help the learner learn. The relationships help facilitate social interaction and active participation in the learning tasks. Learners learn through observation, listening, and talking through their tasks. Social interaction is the ability of the child to interact with peers, adults, and or the environment. Play is a social activity that is relevant to children's lives, engage their natural curiosity, and serves as a means that helps children to reach their possible level. One activity that takes place in school where there is much social interaction is play. The play has been the work of every child since time memorial and it is beneficial for children to be allowed to play since it helps them to engage their natural curiosity. Every play activity is based on the beliefs and attitudes of a given group of people within a particular cultural context. This attests that children learn

their beliefs and culture through play-based activities. Study proves that social interaction is key to play activities (Vygotsky, 1978). Thus, whenever there is a play activity, there is some kind of interaction that goes on between peers, or adults and the environment in which the play is taking place. In the context of the teaching and learning process, when play-based activities are used, learners can establish relationships between themselves and their teachers which in turn foster interaction and active participation in the learning. That is, whenever play-based activities are used in the classroom, the cultural background of the learners is being taken into considerations for effective learning to occur. It is believed that, when early childhood learners are taught in their cultural settings, they can conceptualize the concept for effective understanding. Play-based activities, on the other hand, involve learning through playful, exploratory, and engaging activities that are relevant to the child's interests and needs.

2.2. Conceptual Framework

Figure-1. Conceptual framework on ECE Teachers' use of Play-based activities

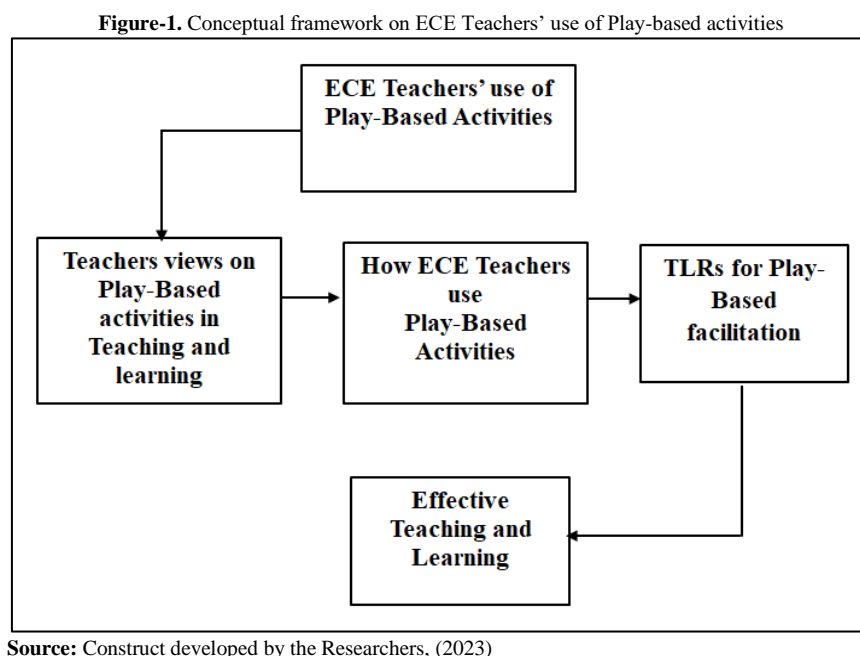**Source:** Construct developed by the Researchers, (2023)

Figure 1, shows the relationship between the variables in this current study. From the framework, the ECE Teachers' use of play-based activities involves teachers' understanding of play-based in teaching and learning, how ECE teachers use play-based activities and TLRs for play-based facilitation. Teachers' understanding of play-based activities in teaching relates to how ECE teachers use play-based activities and TLRs for play-based facilitation at ECE centres. This means when ECE teachers have good understanding of play-based activities in teaching, it would influence how they use play-based activities in teaching and the use of TLRs to facilitate play-based activates at the ECE centres which further leads to effective teaching and learning.

3. Methods and Instruments

The philosophical underpinning of this study was based on interpretivism. Using Qualitative approach, the study employed Descriptive Case Study Design. A descriptive case study was chosen as it is structured to help identify emerging patterns based on a solid theoretical framework (Tobin, 2010). The Case study research scientifically investigates into a real-life phenomenon in-depth and within its environmental context such as an individual, a group, an organization, an event, a problem, or an anomaly (Burawoy, 2009; Stake, 2005; Yin, 2014). The purpose of descriptive case study is to describe a phenomenon in its real-world context (Yin, 2014). The selection of a descriptive interpretation of the findings was chosen with a desire to ensure transparency into the research data and provide the reader with as much explicit detail of the interviews as possible to portray the experiences of the participants clearly and accurately. Similarly to Winter (2005), the purpose of this study was to develop a deeper comprehension of the perceptions regarding this concept from insider perspectives. The researcher used descriptive case study to provide descriptive details on ECE teachers use of TLR's to facilitate play-based activities in teaching and learning in the Hemang Lower Denkyira District of the Central Region of Ghana. The researcher through interview and observation explained how the participants involved made the available resources accessible to learners during play-based activities in teaching and learning. Through this way made the researcher to reveal unfamiliar cases in the study familiar and also expressed in common language about ECE teachers use of TLR's in play-based activities in Hemang Lower Denkyira District. Amidst this pitfall for this study design, the illustrative case study was chosen to enable the purpose of the study to be achieved. The target population was all the 282 public early childhood education teachers and the District Early Childhood Coordinator in the Hemang Lower Denkyira District. The total number was 283 (Hemang Lower Denkyira District Education Directorate, 2021). The accessible population was all the 52 early childhood education teachers in the Hemang East circuit including the District Early Childhood Coordinator (Hemang Lower Denkyira District Education Directorate, 2021). In establishing a sample size for qualitative studies, Malterud et al. (2016) recommends 6-8 data sources or sampling units as sufficient when

homogeneous samples are selected in qualitative research. Also, Lincoln and Guba (1985) recommended between 10 and 20 participants in interview studies. Hence, the sample size of a total of ten (10) participants, nine (9) professional Early Childhood Education Teachers from the Hemang East Circuit and one (1) District Early Childhood Coordinator in the Hemang Lower Denkyira District were selected to maximize understanding of the phenomenon. Purposive sampling technique was used to select the sample for the study. The purposive sampling used by the researcher involved selecting participants based on his or her own judgment of the population to participate in a study (Atkinson, 2012; Black, 2010). Considering the topic under study, homogenous sampling techniques was used to select participants for the study. The homogenous sampling involves individuals, groups, or settings that all possess similar characteristics or attributes (Omona, 2013). A report from the Education Directorate of Hemang Lower Denkyira District shows that, the district has 14 professionally trained ECE teachers posted to the Hemang East Circuit (Education Directors' Report, 2021). Therefore, the participants were chosen because they have received professional training in early childhood education, they have taught early childhood learners for about three (3) to seven (7) years, and have received in-service training on the use of play-based activities in teaching and learning. This means the participants selected for the study had specific characteristics (Onwuegbuzie and Johnson, 2004). Hence, total number of ten (10) participants including one (1) ECE coordinator who possess same characteristics as the teachers and for the fact that, she works closely with them. The semi-structured interview guide and observational checklist were utilized in collecting data for this study. In determining the trustworthiness of this study, credibility, transferability, dependability, and confirmability were used to authenticate the reliability of the study (Lincoln and Guba, 1985). The data were analyzed thematically. The analysis of the data was done with the help of online qualitative software, Taguette. Using the Taguette, the researcher highlighted quotes and phrases from the interviews that were significant to the study.

4. Results and Discussions
4.1. Results on ECE Teachers' Use TLRs to Facilitate Play-based Activities

The third research question sought to assess Teaching and Learning Materials that ECE teachers use to facilitate play-based activities in Hemang Lower Denkyira District. Teaching and learning resources (TLRs) are those materials used in the classrooms for instruction. The use of TLRs is indispensable in the delivery of play-based pedagogy in ECE centres. Teachers' use of TLRs in play activities and the opportunities children get to have contact with the TLRs play an important role in ensuring quality teaching and learning in ECE settings. During the interview, participants were made to share their views on ECE teachers' use of audio-tape in lesson delivery; ECE teachers' use of other materials aside audio materials; Children's' accessibility to appropriate materials; The various learning centres in the classroom; Kind of environment conducive for PBA; and ECE teachers' use of PBA in the absence of original learning materials. From the interview, a number of issues were brought to light from the responses of the participants and have been interpreted in the sub-themes below.

4.1.1. ECE Teachers' Use of Audio-Tape in Lesson Delivery

In order to use play-based pedagogy at the Early childhood education, the teacher must involve variety of TLRs which appeal to the senses of the learners especially their hearing. Participants responded to the ways ECE teachers' use of audio-tape in lesson delivery. Their knowledge ensured that participants use variety audio-tapes as resource(s) are readily available and accessible for specific lessons or activities. Some participants remarked that:

> During the literacy time, mostly, I use it. Because of the rhymes, when we are doing our sounds, we use our audios, so that we can play the sounds to them whiles they learn out of it. When am having numeracy lessons too, I play the rhymes to them, rhymes about counting, about shapes, about colours, so when they are used to those kinds of songs, immediately you raise the song they sing along and whiles they are singing, they are learning as well. (TP1)

Similarly, this participant commented this way:

> "For instance, when am teaching dancing, I can't use my mouth to sing for learners to dance along, I also use audio-tape machine like the Bluetooth." (TP2)

Again, this participant explained her point this way:

> "As you observed, I don't have the Bluetooth machine so I always use my phone, when am teaching phonics, I use my phone to play the music and sounds for children to listen and sing along." (TP4)

In relation to the audio tape use, the coordinator established that:

> Hardly, because they usually use materials that are manipulating. Those that the kids can hold and feel. But audio tapes came in some time ago with radio learning apart from that when it comes to usual early childhood development and education, audio tape isn't found in our classrooms. No! (CP)

Figure-4. Use of Bluetooth Audio-tape in Lessons

Source: Picture captured by researcher during field study, (2023)

4.1.2. ECE Teachers' Use of Other Materials Aside Audio Materials

Teaching and Learning Resources/Materials are needed to create an appropriate environment for effective learning. While much teaching has traditionally relied on the pupils' hearing and seeing, the modern trend emphasizes the use of all the senses – hearing, seeing, smelling, tasting and touching. The TLRs used in the classroom should provide the pupils with the opportunity to learn through all or most of the five senses. In response to ECE teachers' use of other materials aside audio materials, some participants commented this way:

> *Mostly, I use real objects. and if I don't get the real objects like fruits, vegetables, etc., at times, we bring in unreal one's and sometimes too we have charts that we use. They enjoy it, if you take them out. They also get attracted by real objects, charts and pictures in the classroom.* (TP4

Figure-5. Use of Visual Materials in Lessons

Source: Picture captured by researcher during field study, (2023)

Again, this participant elaborated that:

> *"Yes, just that, the materials are not enough as you observed but we manage them to make sure they depict what we want to portray."* (TP3)

To corroborate this, coordinator participant explained that:

> *We don't have the televisions, computers, even some of the schools have no access to electricity, and those that have access to electricity, they don't have it in the classrooms. Even, for the normal counters and those things they don't even get places to keep them, so we*

*have a challenge. As for those things like television and computers non have it. If they don't get the materials that they are supposed to get for play, they don't do it. (*CP)

4.1.3. Children's Accessibility to Appropriate Resources/Materials

In selecting TLRs for lesson, teachers must make sure that they fulfil a function which is relevant and when used, those resources must emphasize particular points raised in the lesson more effectively than can be emphasized without them. Availability and accessibility of TLRs are important towards the implementation of play-based pedagogy. In this regard, participants supported that, learners' ability to engage and interact with the TLRs is pivotal in using play-based pedagogy at the ECE centres. Here are what some participants shared:

"Yes, they have access to all the large posters in the class like; vegetable, fruits chart and then parts of the body. There are pictures of the various currency, just that, they can't take them out." (TP5)

Simply, this participant remarked:

*"Yes, they do. The materials are always at their disposal." (*TP2)

Again, this participant emphasized that:

"The materials are all age appropriate as you observed, and they are always at the reach of my learners. So, they get access to them anytime they wish." TP4

Also, the participant substantiated this way:

I give them free range, when you come to school early in the morning, you pick any library book you want, and then you read it yourself until I am also done with whatever I think I have to do or the preparation I have to make before lesson. So, it either you just take a story book and then you read it but when it is time for my activities, I just give every child the opportunity to handle any material I want them to use during the lesson. (TP5).

4.1.4. The Various Learning Centres in the Classroom

Teachers should also devise innovative ways of creating and developing TLRs from their locality. They should encourage and promote children's independent learning using the learning centres as a sure way of achieving learning. Some participants said that, they have shopping centres, book centre, market centres created in their classrooms to help the learners to manipulate the materials there. Also, most of the participants interviewed shared that, children have free access to the learning centres, because when they go there, it helps them work together as team. These are what participants had to say:

As I said, it depends on the lesson that am teaching, so, if it is about "home" I just direct them, they should go and play there, they should mention the names, everything, even they can even count it as long as they are playing with it, so it depends. I put them into groups, I divide them into three, one will go to the book centre, the other too will go to the shop centre, and if our focus for day is on the home centre, that's where I will concentrate, so after am done with the first group, they will just rotate within 10 to 15 minutes. (TP6)

Figure-6. Teacher and Pupils at Book centre

Source: Picture captured by researcher during field study, (2023)

Another participant remarked that:

Let take for instance, when we are treating money, children are allowed to visit the shopping centre, where they are engaged in selling and buying activities. Here, learners are guided on how to trade with real money. So, it helps them to grasp concept easily for effective understanding. (TP2)

Figure-7. Teacher and Pupils at Hair Dress centre

Source: Picture captured by researcher during field study, (2023)

Similarly, this participant commented that:

In the first place I have three centers as you observed, because of the size of the classroom, I don't want the place to be so congested, that is why I have three in my class. I give the children free access to the learning centres, because when they go there, I think it helps them to just come together in a team and have a team work, and then whatever they do there, I think it will help them have a fair knowledge of what they are supposed to get out of the lesson or my aim or goal for the day. (TP5)

Also, the coordinator participants related that:

Learning centres are very good because they help the kids to manipulate with materials there and all those things. They get to know what those materials are used for, they learn to use them on their own at their level, so I think it really helps them, and in the end enhancing play-based activities. (CP)

4.1.5. Kind of Environment Conducive for PBA

Creating a conducive learning environment encourages free play and safety of learners. Some participants shared their ideas that, incorporating play-based activities into lessons in a conducive learning atmosphere allowed young children to go out for a free play with little or no guidance. Some participants were of the view that, conducive environment must be one which is spacious for learners to move about. Some participant also stated that, a conducive learning environment must be attractive and free of dangerous objects. In relation to the kind of environment conducive for PBA, this participant responded this way:

The room should be spacious, so that the children will feel free to roam in the classroom. And there shouldn't be obstacles that will be hurting them or something like that. Ventilation is a problem. We also have light in the school but we don't have it in the classrooms for the children. (TP1)

Similarly, to the quotation of TP1, this participant clarified that:

The environment should be free of dangerous objects like blade and other things and it should be spacious for them to move around. Then, the environment too should be attractive. Yes, so that my learners will always feel welcome and safe. (TP4).

To corroborate, the coordinator participant remarked this way:

Safe environment, spacious and with all the materials that teacher would need for particular topics should be available. Of course, the teachers should be emotionally stable before

coming to the classroom, because if the teacher gets offended, it will affect the children too.
(CP).

4.1.6. ECE Teachers' use of PBA in the Absence of Original Learning Resources/Materials

The Teaching and Learning Resources afford children the opportunity to have hands-on experiences, which increases and develops their knowledge. The success in the teaching and learning process through PBA could be influenced by the resources/materials made available to support it and the direct ways in which these resources/materials are used. Almost all participants improvised for play based activities in the absence of original learning materials. Some participants shared that:

> *I make sure I give out the TLRs for them to self-select their own, the one that they feel like using to play, it is available for them, though we don't have enough but the little that I have improvised, I give them out for them to use, and I make sure am there to support them as a guide, immediately they ask for something and some is there, I make sure I give it to them, so that they don't hurts themselves whiles they are playing.* (TP1).

Figure-8. Teacher's Improvisation of Visual Materials for Lessons

Source: Picture captured by researcher during field study, (2023)

Also, another participant commented that:

> *"I improvise, sometimes I ask the children to bring some of the things, and other ones too, I either provide or draw them if we are not getting the real objects."* (TP4)

Correspondingly, the coordinator participant further explained that:

> *"Well, they do, with improvisation, sometimes you go out you pick some materials, sometimes you are able to draw with your own hands and other things. But if you are supposed to use something like TV, and it's not available, it means, that particular lesson will not come on"* (CP).

Results from the researcher's observation in relation to ECE teachers use of TLRs to facilitate play-based activities revealed that, most of the participants used PBA to captivate learners' attention during lessons. Some of the participants too are simply unfamiliar about the kind of play-based activities they have to integrate into their lessons for effective learning. It was revealed from the observation that, majority of the participants do not use reading books for read aloud and decodable reading activities. Also, during observation, the researcher found that, participants organized and used materials in playful learning situations for the benefit of learners. Aside this, few participants used relevant conversational posters for prediction activities during introduction stages of lessons. Again, it was revealed that, almost all participants made materials and other resources accessible for all learners during lessons and were involved in children's play. From the participants' classrooms environment, it was observed that, most of the classroom environments were spacious and well arranged to allow free movement during play-based activities.

Again, findings from the observation in relation to audio-tape use in lessons showed that, few numbers of participants used Bluetooth speakers for oral and listening activities during lessons. However, few participants used story books to aid story telling activities. In addition to this, the observation indicated that, only one school had a television set in the classroom to enhance learners' audio-visual and literacy activities during lessons. Also, it was observed that, during literacy and arts lessons, some participants used drawing books, crayons for tracing and colouring activities including words and sentence cards for "find me game" during literacy lessons. In furtherance, the researcher observed that, there were empty cans, boxes and countable like Bottle tops, sticks, and straws that were used by the participants for numeracy lessons. Contrary to the above, it was observed that, most participants used improvised materials instead of realia to enhance first hand experiences of learners. Again, almost all participant did not have sand tray for learners to practice writing activities. From the observation again, most ECE centres in the Hemang Lower Denkyira District had learning centres created in their classrooms for miniature and pretense play activities. Lastly, the researcher observed that, some ECE centres had age-appropriate play equipment and manipulatives for fine motor activities. Nevertheless, all ECE centres observed had no play equipment within their playground for gross motor activities. The study observation reflected in the responses given by the participants during the interview sessions.

5. Discussions on ECE Teachers' Use TLRs to Facilitate Play-Based Activities

Results of this study show that, the use of TLRs is indispensable in the delivery of play-based pedagogy in ECE centres. The results of the study emerged that, participants used audio-tape in lesson delivery. The study however discovered that; some participants don't have the bluetooth speaker machine so they always resort to the use of mobile phones especially during phonic lessons. Findings from the observation in relation to audio-tape use in lessons confirms that, few numbers of participants used Bluetooth speakers for oral and listening activities. Tamakloe *et al.* (2005), confirmed in his study that, when using play-based pedagogy, teachers must select a variety of TLRs which appeal to other senses than that of hearing. The study again revealed that, the materials used in play were not enough. Also, most schools do not have access to electricity; not to talk of televisions and computers to use in children's classrooms. In confirmation to this, the observation indicated that, only a class had a television set in a school to enhance learners' audio-visual and literacy activities during lessons. This study is in consonance with Tamakloe *et al.* (2005) which confirms that, in selecting TLRs, teachers must make sure that, they fulfil a function which is relevant and when used, those resources must emphasize aspects in the lesson more effectively. Also, Oppong (2021) indicated that, teachers' ability to meaningfully use TLRs in their lessons and to create the necessary environment and opportunities for their children to have access to the TLRs and to manipulate them is key to effective lesson delivery and quality learning outcomes.

Again, the study found that, participants used of real objects like fruits, vegetables, etc. are scares, they substitute with unreal one's and sometimes, charts. In connection to this study, study confirmed that, while much teaching has traditionally relied on the pupils' hearing and seeing, the modern trend provides opportunity for children to learn through all or most of the five senses–hearing, seeing, and smelling, tasting and touching (Nkuuhe, 1995).

Also, this study confirmed that, majority of participants supported learners' ability to engage and interact with the TLRs as pivotal in implementing play-based pedagogy at the ECE centres.

Study findings revealed that, learners have access to all the large posters in the class like; vegetable, fruits chart and body parts chart. In furtherance, the researcher observed that, there were concrete materials and manipulatives such as empty cans, boxes and countable like Bottle tops, sticks, and straws that were used by the participants for numeracy lessons. The findings of the current study can be related to the study by Oppong (2021) which pointed that, although some materials were available in some ECE centres but only in very few quantities and were fixed and so the teachers just made reference to them without the leaners having the opportunity of touching or manipulating them.

Again, this study emerged that, some ECE centres have shopping centres, book centres, market centres created in their classrooms to help the learners manipulate the materials there. Also, most of the participants were of the view that, those learning centres are always accessible to all learners in order to help promote teamwork and to enhance play-based activities. The findings of this study disconfirmed the findings of Lester & Russell (2008) which stated that, as a result, socio-dramatic play and domestic play, learning centres have been disappearing from early childhood classrooms.

In furtherance, this study emphasized that, conducive environment must be one which is spacious for learners to move about. The study found that, a conducive learning environment must be attractive and free of dangerous objects. Again, the study revealed that, a conducive environment must be safe, spacious and with all the available materials that teachers would need for particular lesson. Similarly, from the participants' classrooms environment, it was observed that, some of the classroom environments were spacious and well arranged to allow free movement during play-based activities. To confirm this study, according to NaCCA (2019), it is believed that learners learn better in a positive learning environment, where they feel emotionally and physically safe to enjoy learning.

Finally, this study's findings suggest that, almost all participants improvised for play based activities in the absence of original learning materials. Also, observation confirmed that, most participants used improvised materials instead of realia to enhance first hand experiences of learners. This statement from the current study can be corroborated with a study by Nantwi (2019) which confirmed that, when these teaching and learning materials are not available, the teacher can improvise with alternatives that can aid effective teaching and learning through PBA. Also, the study observed that, there were empty cans, boxes and countable like Bottle tops, sticks, and straws that

were used by the participants for numeracy lessons. This statement from the current study corroborates the study by Aina (2012) which emphasized that, teachers must utilize the use of discarded resources or materials around them to improvise teaching aids for effective teaching and learning. Similarly, Opoku-Asare (2004) also asserted, the local environment abounds with a variety of raw materials and discarded resources that teachers can use to improvise TLRs for effective teaching and learning.

Findings

- It was emerged in the study that most early childhood centres do not have audio materials like Bluetooth speakers for oral and listening activities.
- Again, the study found that, most schools have no access to electricity and so lack television set and computers to aid in audio-visual lessons.
- It was again revealed from the study that, most Early childhood teachers used improvised materials instead of realia to enhance first hand experiences of learners.

Recommendations and Conclusions

- The Stakeholders of education such as; Parent Association (PA), School Management Council (SMC), Headteachers, Teachers and the Mission units should resource Early Childhood Centres with enough, varieties, and developmentally appropriate play resources/materials and equipment to facilitate play-based pedagogies at the early childhood centres.

    The researcher again concluded that; teachers' ability to meaningfully use TLRs in their lessons and to create the necessary environment and opportunities for their children to have access to the TLRs and to manipulate them is central to the successful implementation of play-based pedagogy. Therefore, relevant resources/materials such as Audio, audio-visual and concrete materials are to be provided to promote play-based pedagogies at the early childhood centers.

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