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**Pedagogical Content Knowledge of Early Childhood Education Pre-Service Teachers in Teaching Psychosocial Skills Across the Kindergarten Curriculum In The Volta Region, Ghana**

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**ABSTRACT:** *The purpose of this study was to examine pre-service early childhood educators pedagogical content knowledge in teaching psychosocial skills across the kindergarten curriculum in the Volta Region of Ghana. Descriptive survey design was used for the study. A mixed method approach was adopted. Purposive sampling was used to select 4 colleges out of seven colleges in the 18 districts for the study to avoid selecting a college that do not pursue B.ed in early childhood education. Sample of 140 final year pre-service teachers pursuing a degree in early childhood education in colleges in Ghana, who have completed their macro teaching practice programme was employed using census and simple random sampling. Questionnaires were administered after which ten were reselected for the interview session. Data was analysed using means, standard deviation and narratives. The study revealed that pre-service teachers had enough knowledge to achieve two goals of the curriculum and also not much attention has been given to psychosocial skills of the kindergarten curriculum during the preparation of pre-service teachers. Pre-service teachers also had enough knowledge in the use of observation and conversation among others. A thorough examination of the kindergarten curriculum by pre-service teachers during supported teaching in schools and macro teaching practice before getting into the teaching field was recommended.*

**KEYWORDS:** Early childhood teachers, kindergarten curriculum, pedagogical content knowledge, psychosocial skills.

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## **INTRODUCTION**

Early childhood education plays a significant role in the introduction of basic learning skills, which are vital for their subsequent formal education at all levels. Children who have had kindergarten education have the advantages of less likely to repeat classes, drop out of school; and are less likely to be assigned to special need classes (Owusu et al, 2022). Quality early childhood education leads to higher achievement scores; higher completion rate in subsequent years of education; low correlation between such children and criminal activity (Owusu et al, 2022). Teaching any subject, however, is a highly complex cognitive activity in which the educators must apply knowledge from multiple domains. Early childhood educators with differentiated and integrated knowledge may have a greater ability than those whose knowledge is limited and fragmented. Teaching is a process of delivering

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knowledge between teachers and learners. This process involves planning, implementation, evaluation, and feedbacks to produce effective teaching which will consequently lead to effective learning in the classroom (Noh, Ajmain & Rahman, 2017).

Research on teachers' subject-matter knowledge indicates that many kindergarten educators lack conceptual understanding of their subject-matter and it seemed much had not been done to correct the problem (Kankam & Aboampa, 2016). They intimated that having strong subject-matter knowledge is essential for a teacher, but it is not sufficient for effective teaching. Kankam and Aboampa added that although there were compelling evidence to suggest that, there had been a lot of positive changes for children in Ghana since the Early Childhood Care and Development (ECCD) policy was enacted, the current teaching practices, however, are limiting the development of children's cognitive capital and habitus needed for effective functioning in present and future social, economic and political fields and, therefore, children's learning and teacher identity development in Ghana have to be re-imagined for rapid transformation to occur.

They further added that early childhood educators are expected to know how to teach subject-matter and also be aware of other factors like the curriculum, learners, teaching techniques and strategies that might influence their teaching (Rowan & Ball, 2005). The pedagogical knowledge base of early childhood educators includes all the required cognitive knowledge for creating effective teaching and learning environments. Pedagogical content knowledge is viewed on a continuum, with educators acquiring more of it through appropriate training and experience. The key hope from an educational enterprise and improvement perspective is that the gains in teacher pedagogical content knowledge may lead to learning gains in learners' achievement. A kindergarten teacher with better content knowledge who knows how to teach the subject to a specific audience is expected to create learners gains over a less prepared or a less experienced teacher.

Gasteiger, Bruns, Brunner, Sprenger (2020) identify seven knowledge domains for early childhood educators: namely, subject-matter knowledge; general pedagogical knowledge; pedagogical content knowledge; knowledge of learners and learning; curriculum knowledge; knowledge of educational contexts; and knowledge of educational philosophies, goals and objectives. According to them, a teacher should know the content, pedagogy, curriculum, and how they interact. They further intimated that one of the most important aspects of being an early childhood teacher is to know how to create a conducive learning environment to facilitate learners understanding of a particular concept and to contribute to their intellectual development. Gasteiger et al. (2020) named this kind of knowledge "pedagogical content knowledge." They further explain pedagogical content knowledge as "the ways of representing and formulating the subject that makes it comprehensible to others" (p. 9). They stated that this includes teachers' knowledge about specific topics that might be easy or difficult for learners and possible conceptions or misconceptions that they might have related to the topic.

Kandjinga and Kapenda (2022) proposed several key elements of pedagogical content knowledge as: knowledge of representation of subject matter; understanding of learners' conceptions of the subject and the learning and teaching implications that were associated with the specific subject matter. General pedagogical knowledge for teaching strategies; curriculum knowledge; knowledge of educational contexts; and knowledge of the purpose of education. According to the author, knowledge of classroom management involves maximizing the quantity of instructional time, handling classroom events, teaching at a steady pace, maintaining clear direction in lessons; knowledge of teaching methods involve having a command of various teaching methods, knowing when and how to apply

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each method; knowledge of classroom assessment entails; knowledge of different forms and purposes of formative and summative assessments, knowledge of how different frames of reference (Kandjinga and Kapenda (2022).

The harmonization of all types of early childhood educator's knowledge might yield effective teaching practices. However, a teacher does not immediately achieve that harmony among all types of knowledge that would facilitate their teaching practices as well as enhance their learners' learning. It requires continuous efforts to be able to balance content, learners, curriculum, educational goals, and assessment tools (Kilic, 2009). Pedagogical content knowledge is essential in establishing such balance because the knowledge of content, learners, and curriculum is embedded in that knowledge (Ness-Newsome, 2013). Although pedagogical content knowledge is assumed to be developed as early childhood educators gain more experience in teaching, pre-service educators should know about it and try to make sense of it through their methods courses and field experiences during supported teaching in schools in order to be ready for their first year of teaching. Studies of pre-service teachers' knowledge and skills related to teaching have revealed that methods courses and field experiences are likely to contribute to the development of pedagogical content knowledge to some extent (Ball, 2008). The acquisition of appreciable levels of this knowledge is primarily dependent on what a teacher education programme or curriculum offers and exposes pre-service teachers to. This provides a background for pre-service teachers to better conceptualise, understand and relate with various experiences during their macro teaching practice. For early childhood pre-service educators, this is very critical, considering the role they play in the formative life or early years of a developing child. Developing children's psychosocial skills is considered very critical to their total development. This affords them the opportunity to develop positive self-concept and confidence; appreciate and understand themselves and others; relate positively with others; make group and individual decisions and solve problems; and cope with emotions (CRDD, 2004).

According to Durlak and Weissberg (2011) a growing body of research supports the belief, held by many early childhood professionals, that young children's peer relationships are important for their development and adjustment to school. Preschool-aged learners who have positive peer relationships are likely to maintain positive peer interactions in grade school, while children who have a hard time getting along with age mates in the preschool years are more likely to experience later academic difficulties and rejection or neglect by their elementary-school peers (Durlak & Weissberg, 2011). Without the skills to play constructively and develop friendships with age mates, children become excluded from opportunities to develop additional and more complex skills important for future peer interaction (Noh., Ajmain, & Rahman, 2017). The close link between psychosocial activities and education is highlighted by Nicolai and Triplehorn (2003) who recommend that for many children in conflict affected areas, schooling, whether formal or non-formal, is the main means through which support can be provided. This has critical implications for teacher training to develop classroom management skills, basic knowledge of child development and child-friendly pedagogic techniques, as well as providing children time and space for recreational and expressive activities.

Raha (2019) intimate that although PCK is assumed to be developed as teachers gain more experience in teaching, it is believed that pre-service teachers should possess some level of it and improve upon it while gaining experience in the field during supported teaching in schools and macro teaching practice. It is therefore, expected that those pursuing early childhood education in teacher education, colleges and universities are exposed to adequate PCK in psychosocial skills since it is one of the six core components of the early childhood education programme in Ghana. Psychosocial development is

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considered one of the most significant aspects of the development of children. It involves the development of emotions, temperament and all other characteristics borne out of experiences with parents and significant others in the environment of the growing child (Lahmann & Al-abbadi, 2015). Principally, psychosocial development is considered a premise for the development of other domains of an individual child. Development and expression of various emotions are tied to brain maturation and cognitive development, including the development of self-awareness. This suggests that children's intellectual, social and emotional development seem to have a relationship with their development of psychosocial skills which is also known to have implications for adult life. The development of relevant psychosocial skills in children, however, is heavily dependent on the kind of attention provided by parents, caregivers or kindergarten educators (Lahmann & Al-abbadi, 2015).

In the last few decades, changes in the global economy influenced by industrialization in the Americas, Asia and Europe, on one hand, and economic depression in Africa, on the other hand, has brought in its wake the need for working female spouses who traditionally took care of children at home. This has necessitated the need for non-parental child care which has consequently fueled the introduction of kindergarten education in most parts of the world including Ghana. The provision of attention and the development of psychosocial skills in children, which focuses primarily on the development of the affective domain, are now left in the hands of caregivers and kindergarten educators who act as "surrogate parents" (Kankam & Abroampa, 2016). It is therefore, important that this kind of service is provided by well-trained caregivers and early childhood professionals if kindergarten learners are to maximize the benefits. It is on this score that higher educational institutions such as some colleges of education and universities in some countries including Ghana have introduced programmes in early childhood education to provide pre-service teachers with the requisite skills and competencies to support children's learning for holistic development.

Mccubbins (2004) however, reports that early childhood education curricula have become more academic, suggesting that there is an over emphasis on the development of the cognitive to the detriment of the affective which is heavily influenced by the development of the psychosocial skills in children. This has introduced a rigid formal learning into the content of programmes contrary to child development principles (Sackey, 2009). Logically, early childhood education programmes that pre-service teachers are taken through must provide them with relevant competencies and expertise tailored to meet the demands of the various components of the early kindergarten curriculum prescribed for the nation for which in Ghana's case the development of psychosocial skills in early learners is key. It is therefore, important to find out whether the former is consistent with the latter. For instance, teacher education programmes should equip pre-service teachers with competencies in the use of highly interactive teaching strategies and assessment procedures. The use of effective instructional techniques lies at the heart of engaging learners and instruction in early childhood education. Teaching early learners requires the use of developmentally appropriate strategies that are interactive in order to generate varying affective elements. Wertheim and Leyser (2002) argued that teachers with high self-efficacy were more likely to concentrate on individualized instruction and to adapt teaching practices more readily by employing varying instructional strategies like role play, dramatization, simulation etc. Besides, such teachers work with smaller groups with more ease and flexibility and also spent more time with learners. Zumwalt (2012) calls authentic assessment. He asserted that teachers' ability to do authentic assessment requires the use of informal and everyday tools such as observation, conversation, listening to children's opinion about themselves among others. Though, these are meant for teachers to gather relevant information about children progress, they lend themselves to interactions between teachers and early learners which help in developing a psychosocial skill, since feedback is

embedded in assessment practices. Wertheim and Leyser (2002) explain that with regard to feedback patterns, high-efficacy teachers offer more reward for appropriate responses and persist longer with longer with learners who are slow by providing necessary props. These may engender positive self-esteem, confidence, honesty and openness in early learners.

In Ghana, psychosocial skills are supposed to be taught across the kindergarten curriculum across the country. This means that kindergarten educators must be well equipped to develop these skills in early learners by providing them with relevant opportunities when teaching language and literacy, numeracy, our world our, creativity, among others to enable them imbibe such values. The researcher's personal interactions and observation during macro teaching practice supervision of pre-service teachers indicates that many kindergarten educators teaching and learning instructions and assessments appears to be cognitive development oriented. The question is, in 21st century Ghana, what is Ghana doing to train pre-service early childhood teachers to be equipped with psychosocial skills to teach children to become useful citizens who can fit and function well in the society and also help with the developmental efforts of the country? Further, it seems almost all studies conducted on teachers' pedagogical content knowledge so far focused on components that promoted the development of the cognitive domain. This has thus, necessitated an examination of the pedagogical content knowledge of pre-service early childhood educators in the teaching of psychosocial skills across the kindergarten curriculum which maybe primarily responsible for the generation of values and attitudes for developing the affective elements in early learners.

### **Purpose of the Study**

The study was designed to explore pre-service early childhood educators' pedagogical content knowledge in implementing psychosocial skills across the kindergarten curriculum in the Volta Region of Ghana. It sought to examine the extent to which the bachelor of education (early childhood) programme provides pre-service teachers with the requisite competencies and skills that could be used to generate various affective elements across the kindergarten curriculum for early childhood learners to imbibe. Therefore, the following research questions were generated:

1. What level of content knowledge do pre-service teachers' have in the teaching of psychosocial skills in the kindergarten curriculum?
2. How adequate is pre-service teachers' knowledge in the use of interactive techniques in teaching psychosocial skills across the curriculum?
3. How adequate is pre-service teachers' knowledge in the use of assessment procedures in teaching psychosocial skills across the curriculum?

### **METHODOLOGY**

The study was a descriptive survey that explored pre-service early childhood teachers' pedagogical content knowledge in implementing psychosocial skills across the kindergarten curriculum in the Volta Region of Ghana. This design enabled the use of both quantitative and qualitative approaches to generate enough data for the study, validate and interpret using systematic principles (Creswell, 2017). The design helped to generate enough relevant data to provide answers to the broad and complete range of research questions and also generated stronger evidence for corroboration of findings and conclusion. All final year early childhood education pre-service teachers of public colleges in the Volta region of Ghana constituted the target population. Accessible population was the pre-service teachers pursuing a degree in early childhood education from four colleges purposively selected from the eighteen (18) districts in the Volta Region.

Purposive and census sampling techniques were employed for the study. The purposive sampling was used to select four (4) colleges out of seven in the 18 districts for the study to avoid selecting a college that does not pursue B.ed in early childhood education. The census sampling on the other hand, was used to select 140 final year pre-service teachers pursuing a degree in early childhood education, who had completed their macro teaching practice programme in the selected districts. In all, 140 pre-service teachers were selected for the study. They were final year (4<sup>th</sup>) pre-service teachers who were out for the first semester and had completed their practice of teaching in early childhood schools across the Volta Region. These pre-service teachers had return to campus for their second semester for post-internship seminars. They were, therefore, in better position to provide relevant information needed for the study. Questionnaires were administered to these students out of which ten were reselected from the already sampled population for the interview session. This is because, according to Creswell (2014), a small sample size should be used for qualitative face in mixed method to enable the acquisition of in-depth information from the respondents. The researcher took cognizance of the busy schedules of the pre-service teachers involved in the study and therefore, ensured that the questionnaire and interview data collection did not interfere with their regular activities. They were also given the opportunity to redraw their participatory services from the study at any time. Items in the questionnaire were close ended with some on a three-and four-point Likert-type scale. The responses from the questionnaire items gathered for quantitative data were coded 3, 2, 1 and 4, 3, 2, 1 (3=strongly agree; 2=somewhat agree; 1=disagree and 4=very adequate; 3=adequate; 2=inadequate; 1=not at all) and analysed using mean and standard deviation. Six females and four males were involved in the interview session.

The interview focused on the three major themes on which quantitative data were gathered. The researcher served as the moderator and posed questions consistent to the themes. All of the ten participants were given the opportunity to react to questions posed and listen to the views of others to enable them consider their own views accordingly (Wallen & Hyun, 2012). This helped in coming out with different perspectives to tease out varying opinions about the phenomena under study. The session lasted for four hours and was recorded with the consent of the pre-service teachers. Every interview session was started with an explanation about the purpose of the study. This was followed by a brief description of ethical considerations (i.e. confidentiality, anonymity and inform consent) and the fact that each interview session was going to be recorded using audio. At the end of every interview session, the audio-recorded interview was played to the participant and the transcribed interview was also sent to them to ensure their satisfaction and agreement with the content. Where a participant was not too comfortable with portions of the content, those portions were edited to the satisfaction of the participant. Participants were also given the opportunity to express themselves either in English or in the local dialect (Ewe or Twi). There was no need for an interpreter since the researcher comprehensively understood the local dialect.

With respect to data analysis, the researcher first translated the recorded interviews which were conducted in Twi and Ewe after which all the interviews were transcribed. In addition, content analysis, which breaks up text to unearth salient themes within it (Braun and Clarke, 2006), was used for the data analysis. With this procedure, the transcribed texts were read multiple times to identify patterns of similarity in relation to predetermined themes. This, however, generated enough qualitative data for triangulation and expanding of results from quantitative data.

## RESULTS AND DISCUSSION

### Level of Pre-Service Teachers' Knowledge in Teaching Psychosocial Skills.

This section sought to find out pre-service early childhood teachers' opinion about how much knowledge they think they would have acquired at the end of the 4-year degree programme to enable them assist kindergarten learners to exhibit various skills and values. The data has been presented in Table 1. With regards to adequacy of pre-service teachers' level of knowledge in teaching psychosocial skills, it came to light that pre-service teacher believed they will have enough knowledge to enable them assist learners to exhibit various psychosocial skills captured in the kindergarten curriculum. This was evident when the grand mean recorded 2.721. Also, appreciating self and others [M=2.87, SD=.446], developing self-confidence [M=2.82, SD=.384], skills of being responsible [M=2.74, SD=.517], skills in knowing and living with one self [M=2.66, SD=.558], however, seem to be the most achievable for pre-service teachers.

**Table 1: Level of Pre-service Teachers' Knowledge in Teaching Psychosocial Skills**

Skills and Values	SA F%	SHA F%	DA F%	M	SD
Skills in knowing and living with oneself	95(67.8)	41(29.3)	4(2.9)	2.66	.558
Self-appreciation and appreciating others	122(87.1)	15(10.7)	3(2.1)	2.87	.446
Self-confidence	115(82.1)	25(17.9)	-	2.82	.384
Decision making skills	94(67.1)	39(27.9)	7(5.0)	2.64	.602
Coping with emotions	86(61.4)	50(35.7)	4(2.9)	2.60	.573
Skills of being responsible	108(77.1)	27(19.3)	5(3.6)	2.74	.517

Key: SA-strongly agree; SHA-somehow agree; DA-disagree

In other to confirm and validate respondents' responses to the level of pre-service early childhood teachers' knowledge in teaching psychosocial skills, an interview session was conducted. Pre-service teachers during the interview session provided the following responses when asked the extent to which they felt they will be able to get kindergarten learners to develop psychosocial skills. Interestingly, one of the PSTs commented that;

*I think that some of the topics themselves will make it possible for the children to develop some of these things. Especially, a topic like parts of the body in our world our people. Also, I feel that most of us will be able to teach this so that the children can know the parts of the body, appreciate their usefulness and others [ECPSTs-1].*

*Another early childhood pre-service teacher emphatically shared a similar view that; The macro teaching practice we just came back from finally has at least taught some of us that, learners need to be encouraged and appreciated even when they make mistakes or not doing well. Teachers don't have to shout on them or label them since it may kill their confidence and this will affect their future work [ECPSTs-3].*

Early childhood pre-service teacher 5 articulated that;

*Even when teachers use role play and dramatic play in their lesson delivery, it may help KG learners to cope with emotions, take responsibilities both at school and at home of their action. This may happen*

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*when after the dramatized play or the role play is well discussed and explained well among learners and is guided by the facilitator.*

The verbatim responses from the pre-service teachers indicated that, they sounded confident that they will be able to help learners demonstrate psychosocial skills. This is considered a very positive sign, since it appears, pre-service teachers are poised to assist learners. A sophisticated revelation that emerged from the responses is that these early childhood pre-service teachers do not appreciate the complexities involved in getting learners to acquire such skills and assimilate the values they come along with. For instance, the response from PST 1 suggests that as the topic mentioned is taught learners will automatically come to appreciate themselves. This kind of understanding early childhood pre-service teachers have seems quite superficial. The implication is that, some of these topics in the kindergarten curriculum might be taught without recourse to these skills and values. The signal this sends is that in spite of pre-service teachers' confidence, it appears they are still deficient in what it takes to make early learners exhibit the various psychosocial skills they require. Further, a critical study of the degree programme pre-service teachers are taken through reveals scanty information on experiences that will equip them with skills to enable them facilitate learning for children to acquire psychosocial skills. The exceptions are 'appreciation of self and others and 'Self-confidence' under two of the courses, which probably explains their competence in that area. A study of the kindergarten curriculum, however, discloses a variety of such activities and experiences. A thorough study of the kindergarten curriculum during preparation for macro teaching and practice of this final year pre-service teachers would have enabled them to monitor closely what in-service teachers (mentors) do in this regard and emulate. The evidence gathered during macro teaching supervision indicates that PSTs do not possess adequate skills to enable them take early learners through activities and experiences out of which they would inculcate psychosocial skills or values and attitudes such as confidence, honesty, taking responsibility, coping with anger, fears etc necessary for their holistic development (NaCCA, 2019).

This finding seems to be in consonance with that of Forlow (2002) that most pre-service and in-service elementary school teachers lack the necessary skills for effective teaching of values. He further added that teachers say their preparation in various teacher education programmes lack adequate training in character education. This is quite a worrying trend since character, moral, values, education and the teaching of psychosocial skills are all geared towards equipping learners with attitudes that would enable children relate well with people and grow to become responsible adults. This implies that although pedagogical content knowledge is assumed to be developed as teachers gain more experience in teaching, PSTs should know about it and try to make sense of it through their method courses and field experiences during supported teaching in school and macro teaching practice in order to be ready for their first year of teaching. This is because the quality of skills and knowledge of a teacher have been identified as a factor that influence successful implementation of a curriculum (Kankam & Abroampa, 2016).

### **The Extent to Which Psychosocial Skills Can Be Taught in the Curriculum**

The objective of this section was to ascertain the extent to which early childhood pre-service teachers think they get learners to inculcate psychosocial skills as they teach each of the components of the kindergarten curriculum.



**Table 2: How Psychosocial Skills can be Taught in the Kindergarten Curriculum**

Components	TLE F%	TSE F%	NA F%	M	SD
Numeracy	78(55.7)	58(41.4)	4(2.9)	2.55	.592
Creative art	99(70.7)	39(27.9)	2(1.4)	2.71	.516
Physical development	86(61.4)	47(33.6)	7(5.0)	2.59	.623
Our world, our people	97(69.3)	40(28.6)	3(2.1)	2.68	.527
Language and literacy	90(64.3)	47(33.6)	3(2.1)	2.71	.651

Key: TLE-To large extent; TSE-To some extent; NA-Not at all

Data in Table 2 indicates that, to a large extent, early childhood pre-service teachers will be able to help learners acquire various psychosocial skills as they take them through the other five learning experiences that make up the kindergarten curriculum. This implied by the mean of means of 2.648. Ideally, as teachers take early childhood learners through these five experiences, they are supposed to involve learners in activities that would make them acquire the necessary skills, values and attitudes by integrating the experiences. The expression of the ability of pre-service teachers to do that is commendable. Although, they seem to be more prepared to assist learners acquire these skills through creative activities [M=2.71, SD=.516], language and literacy [M=2.71, SD=.651], Physical development [M=2.59, SD=.623], our world our people [M=2.68, SD=.527] and numeracy [M=2.55, SD=.592].

The standard deviations recorded for the various five elements in the kindergarten curriculum from PSTs expresses are more homogenous. The implication therefore is that, the heart of the kindergarten curriculum which belief in nurturing honesty, creativity and responsibility, respect, equity, teamwork, truth and integrity etc. will be achieve to promote the optimal aims and objectives of the kindergarten education in Ghana, thus nurturing early learners to imbibe the necessary skills to compete globally to enhance the development of Ghana.

In order to confirm and validate respondents' responses from the quantitative data, an interview session was organised for PSTs. Members of the interview group provided the following responses when asked that they would have difficulties integrating some of these skills when teaching number work for instance. One of the ECPSTs commented that;

*Yes, senior as you know, it is possible to teach children some of these skills in all the five subjects or areas but I think sometimes it will be extremely difficult when teaching mathematics. For example, how will you teach them how to cope with their emotions when teaching them number line in numeracy [ECPST-7].*

Another ECPST9 shared a similar view that;

*Even if you check the syllabus, the section for the psychosocial skills, nothing has been provided for numeracy because they planners of the curriculum themselves are aware that it will be difficult for these children to acquire some of these values at their early stage.*

It was emphatically stated by one ECPST that;

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*Throughout my studies, the pedagogies taught did not equipped me with the skills needed to be used to help early learners acquire these skills in question and the curriculum also did not also state it explicitly [ECPST-10].*

The responses from the respondents revealed that, all the early childhood pre-service teachers agreed to these positions. Earnestly, a gleaning of the section on psychosocial skills, specifically, aspects on the various values that can be integrated during teaching across the five areas revealed that only 'getting along with others' has been ticked as an attitude that early learners can acquire through number work out of about fourteen values and attitudes. It is thus, obvious that though what the kindergarten syllabus covers may be suggestions, adequate information on activities and experiences early childhood learners can be taken through and values and attitudes they can acquire through the five areas have not been provided clearly (kindergarten curriculum 1&2, NaCCA, Ministry of Education, 2019).

Again, pre-service teachers, in the course of their training, might not have been exposed to the fact that all subjects and experiences learners are taken through provide them with some values and attitudes meant to develop their affective domain. The implication is that, novice teachers who will restrict themselves to the syllabus while on the field, such lapses may inhibit the effective implementation of the curriculum. Also, there is danger when tutors and mentors of the pre-service teachers fail to expose their learners to ascertain these experiences. This will affect the delivery of psychosocial skills and will lack the require pedagogies needed to imbibe learners. Herbert (2004) and Wood (2009) intimated in their studies that lack of pedagogical knowledge and skills of teachers who worked with early childhood setting was closely associated with learners delay in academic performance and achievement. Again, this causes serious disadvantage in the future work and careers of such children. This implies that, getting learners to acquire values and attitudes in various subjects require a lot of skill from the teacher. According to Halstead and Taylor (2000) this has generated a lot of controversy as to whether the subjects can legitimately be used. They, however, argue that when learners study subjects, they are inevitably introduced to, they imbibe the values implicit within them. The implication therefore is that, early childhood pre-service teachers should be provided the opportunities to instill values and attitudes. This can be drawn from the teaching of these subjects of which such opportunities can only be created when teachers have an understanding of content in subjects they teach.

### **Early Childhood Pre-service Teachers Knowledge in the Use of Interactive Techniques**

Data in Table 3 shows how adequate pre-service teachers' think they were prepared to use various interactive techniques in teaching psychosocial skills across the curriculum. The 7 items were generated from how adequate pre-service teachers' think they were prepared to use various strategy in teaching psychosocial skills across the curriculum in the Volta Region of Ghana. Similarly, themes, direct quotes and explanations were used to analyse the qualitative data. It could be elucidated from the data that an integration of psychosocial skills across the early kindergarten curriculum can be achieved through the effective use of varying interactive strategies.

**Table 3: Pre-service Teachers Knowledge in the Use of Interactive Techniques**

Interactive Techniques	VA F%	AD F%	IA F%	NA F%	M	SD	Key: VA- Very
Dramatization	69(49.3)	54(38.6)	17(12.1)	-	3.37	.693	
Role play	76(54.3)	57(40.7)	7(5.0)	-	3.49	.594	
Demonstration	71(50.7)	54(38.6)	11(7.8)	4(2.9)	3.37	.752	
Fieldtrips/Nature walk	64(45.7)	60(42.9)	12(8.6)	4(2.9)	3.31	.750	
Integrated approach	74(52.9)	49(35.0)	14(10)	3(2.1)	3.39	.755	
Cooperative learning	77(55.0)	41(29.3)	15(10.7)	7(5.0)	3.34	.863	
Discussions	67(47.9)	55(39.3)	15(10.7)	3(2.1)	3.33	.753	

adequate; AD-adequate; IA-Inadequate; NA- Not at all

Pre-service early childhood teachers expressed that they have very adequate knowledge in the use of interactive strategies and this was deemed impressive. This was evident when the grand mean score recorded 3.37. At the early childhood level, children are curious and explorative and would like to engage the resources available in their environment using their learning style such as auditory, visual and kinaesthetic (Raha, 2019). Teaching techniques must thus be interactive enough to provide opportunities for purposeful interaction to enable early childhood learners interact with themselves and other resources within their reach. Though, all the techniques lead themselves to interactive engagements, the extent of interactivity may depend on how well ECPSTs are equipped and use them appropriately to facilitate learning during instruction. The data seems to suggest that ECPSTs believe and are better prepared in the use of role play [M=3.49, SD=.594], integrated approach [M=3.39, SD=.755], dramatization [M=3.37, SD=.693], cooperative learning [M=3.34, SD=.863] and demonstration approaches [M=3.37, SD=.752]. This is quite surprising since nature walk and discussion are common techniques and seem more interactive and exciting for early childhood learners. The use of fieldtrips, however, might not be out of place but may be ECPSTs think it takes a lot of time and energy to plan and will require a lot of financial assistance and approval to implement such action.

When ECPSTs were asked during the interview whether they were taught interactive strategies in teaching early childhood learners during their years of training, one of them commented that;

*Oh yes, we were taught some of these techniques in most of the courses at the college and I also came to meet some of them here taught by my mentor. Some strategies like role play, dramatization, demonstration, brainstorming, think pair and share. So, I can use some of them well but I don't know about the integrated and cooperative approach as when and how to go about it. I will learn them soon from my ECE tutors and probably utube [ECPST-10].*

Another respondent shared a similar view that;

*Off course in speaking and listening, history and nature of early grade, teaching and assessing numeracy, child growth and development issues in early childhood education lecture we were taught [ECPST-9].*

ECPST 1 also articulated that:

*At the college we were taught but, on the field, I see nothing of such activities or techniques. The ECE teachers on the field told me they are not trained as early childhood teachers. They are only however helping.*

The foregoing expositions indicated that ECPSTs had a better idea and perhaps a fair understanding of the commonly used techniques than what was suggested by the quantitative data. This was confirmed by evidence gathered from the programme they have been taken through in their study. Beside these known techniques are important that ECPSTs are exposed to and should be made to explore the use of other techniques which are more engaging for early childhood learners. This will enable them interact better with and among themselves and the learning environment which will result in the acquisition of some of these values and attitudes.

These findings corroborate with that of Halstead and Taylor, (2000) who opened that the choice of teaching strategies or techniques in the early childhood context itself is value laden. Halstead and Taylor (ibid) added that other techniques which have usually been employed to influence learner's attitude and behaviour are, role play, drama, recreational activities, sports and games, simulation exercises, cooperative learning, project work, among others. It is thus important for early childhood pre-service teachers (ECPSTs) to understand the use of these tools bearing in mind their inherent skills, values and attitudes. The way content or knowledge is manipulated and exploited to enable learners acquire values is critical. For instance, apart from acquiring problem solving skills and being patient to go through various steps and approaches in arriving at solutions in numeracy and literacy, getting early learners to work in groups may also provide them an opportunity to learn how to cooperate with others and share ideas to find solutions to problems or achieve target set.

#### Pre-service Teachers Use of Assessment Procedures

This section provide data on the adequacy of early childhood pre-service teachers' knowledge in the use of assessment procedures to enable children develop psychosocial skills. The 9 items were generated from the adequacy of early childhood pre-service teachers' knowledge in the use of assessment procedures to enable early childhood learners developed psychosocial skills across the kindergarten curriculum in the Volta region of Ghana. Similarly, themes, direct quotes and explanations were used to analyse the qualitative data.

**Table 4: Pre-service Teachers Use of Assessment Procedures**

Assessment Procedures	VA	AD	IA	NA	M	SD
Children's opinion of themselves and their work to gather information about them	81(57.9)	49(35.0)	5(3.6)	5(3.6)	3.47	.734
Conversation with children in order to gather information from them to assist them	109(77.9)	20(14.3)	10(7.1)	1(.7)	3.69	.634
Observation of children in order to gather relevant information	103(73.6)	30(21.4)	7(5.0)	-	3.69	.564
Close interaction with children to elicit relevant information from them	90(64.3)	35(25.0)	14(10.0)	1(.7)	3.53	.704
Tasks setting for children to enable you gather information from them	76(54.3)	53(37.9)	9(6.4)	2(1.4)	3.45	.682
Children's appreciation of each other's work to assess them	65(46.4)	60(42.9)	10(7.1)	5(3.6)	3.32	.761
Checklist to gather information about Learners	78(55.7)	45(32.1)	16(11.4)	1(.7)	3.43	.721
Anecdotal records to gather information about children	76(54.3)	43(30.7)	16(11.4)	5(3.6)	3.36	.823
Tests to gather information from children in other to assess them	73(52.1)	49(35.0)	17(12.1)	1(.7)	3.39	.726

Key: VA-Very adequate; AD-Adequate; IA-Inadequate; NA-Not at all

Data in Table 4 gathered in respect to early childhood pre-service teachers' knowledge in the use of various assessment procedures generated a mean of means of 3.48 implying that they have very adequate knowledge of how these assessment procedures can be used in gathering sufficient information about learners to enable them make informed instructional decisions. In spite of this, it appears they are more conversant with conversing with children, observation and closely interacting with children, accepting children's opinion of themselves and their work as a means of gathering information from early childhood learners.

These are considered crucial if early childhood learners would have to develop values and attitudes like confidence, honesty, respect, love, appreciation of self and others. The comment from the qualitative data emerges that ECPSTs are familiar with the use of tools or procedures like observation and close interaction with children in eliciting relevant information which they favoured highly as reflected in the quantitative data. Early childhood pre-service teachers also knew about anecdotal records, test was rated lower. The evidence suggests that their programme of study did not reveal information on various procedures used in gathering information about children for them to be assimilated.

The danger associated to this, however, is that, teachers may resort to the use of conventional procedures like the use of tests and exercises which may not be appropriate for early childhood learners learning to ascertain authentic assessment. Though the new kindergarten curriculum (2019) suggests the use of informal techniques such as observation, conversation, and creative work (portfolio) and others through the creation of learner-centered classrooms, and the positioning of inclusion and equity at the center of quality teaching and learning. The use of differentiation and scaffolding, problem solving skills and inquiry, as teaching and learning strategies to identify the strengths and weaknesses of learners to enable teachers ascertain their learners' response to instruction. This finding corroborates that of Owusu et al. (2022) who asserted that in making assessment work among young children, teachers need to use observation-based assessment, criterion referenced assessment, checklist, running records, portfolios and record-keeping. This will therefore, help early childhood PSTs ascertain learners what learners can actually do.

### **Implication to Practice and Recommendations**

From the analysis of both quantitative and qualitative data and the analysis of the kindergarten curriculum documents, it came to light that; on completing the 4-year B. ED early childhood programme, pre-service teachers would have adequate knowledge to enable them assist early childhood learners to exhibit psychosocial skills in two out of the six goals which are skills in knowing and living with oneself and appreciation of self and others. It is not clear, however, that not much attention has been given to these psychosocial skills of the kindergarten curriculum developed by NaCCA [2019] during the preparation of pre-service teachers. The implication therefore is that, a lack of consciousness and understanding of what is expected of learners will result in teachers restricting themselves.

Again, concentrating on pure cognitive content that will enable learners read and write only do not conformed to the aim and objectives of the kindergarten education policy in Ghana. This result will affect the learner's total development and future career. It is therefore, recommended that an early childhood teacher education programme should be restructured to create opportunities for pre-service teachers to examine the goals of the various components of the kindergarten curriculum during supported teaching in school's engagements. The programme should equally explore ways by which

early learners can imbibe the values and attitudes implicit in them. Pre-service teachers were exposed to varying teaching and learning techniques but were more familiar with role play and integrated approaches. It is expected that early childhood pre-service teachers will be trained by the early childhood education experts to be able to use and apply appropriate techniques that are interactive and engaging. This is because they lend themselves more easily to the acquisition of values and attitudes as learners interact with their educational environment.

Various assessment procedures such as observation, checklist, running records, portfolios, were recommended for use by ECPSTs, however, they were more familiar with observation as procedures for gathering information from children. It is recommended that since at the early childhood level, authentic or performance assessment is more feasible, early childhood education programmes should provide ECPSTs with opportunities to practice the use of varying informal assessment techniques and tools within children's natural learning settings. This will enable them assimilate the development and evolution of behaviours, values and attitudes so as to provide relevant support for their future development. It is also recommended that, policy makers and educational stakeholders should help preservice teachers examine the kindergarten curriculum critically during their supported teaching in schools, macro teaching and post macro teaching before getting into the teaching field.

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