

Inclusive Classroom Arrangement and the Development of Social Skills in Early Childhood Care and Education

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Abstract

This study, carried out in Calabar Metropolis of Cross River State, sought to find out the relationship between classroom seating arrangement in inclusive Early Childhood Care and Education (ECCE) centre and the development of social skills in ECCE learners. The study specifically examined the relationship between traditional, horseshoe and cluster seating arrangements and children's social skills variables of cooperation/teamwork, speaking, and listening. It adopted descriptive survey design, and was guided by three hypotheses. The population of the study comprised of 3,832 ECCE learners from the 45 public ECCE centres in the two local government areas of Calabar Metropolis. Simple random sampling technique was used to select a sample of 105 learners for the study. A 27-item 5-likert scale questionnaire titled "Class Room Seating Arrangement and Pupils' Social Skills Development Questionnaire" (CSAPSSDQ) was used to gather data. Pearson product moment correlation coefficient (PPMC) was used for the testing of the three null hypotheses. The result showed a significant relationship between the variables of classroom seating arrangement and those of social skills in ECCE learners. Based on the results, it was recommended among others that government and ECCE centre owners should provide adequate classroom and desk for ECCE learners.

Keyword: Inclusive, Education, Cooperation, Teamwork, Horseshoe, ECCE

Introduction

Education involves the use of both formal and informal approach to train an individual from birth throughout life, with the aim of making him/her contribute maximally to the growth and development of himself and the society at large (Nnamdi, 2006). Education socializes man, develops and equips him with skills that will enable him

adapt and survive in his challenging environment. Education is a powerful tool for enhancing sustainable social, economic, political and cultural development of a people and the society (Ndifon, 2014).

The Nigerian Educational system begins with the basic education which encompasses the early Childhood Care Education (FRN, 2004). Basic education, according to Universal Basic Education Commission (UBEC, 2004), is the education given to children between the ages 0-15 years. Basic education is an approach to compliance with the World Conference on Education for All (EFA), the United Nations' Convention on the right of the child, and UN Sustainable Development Goals (SDGs).

Sustainable development is the development that meets the needs of the present without compromising the ability of the future generation to meet its own needs. It is the practice of maintaining the process of productivity indefinitely by replacing resources used. Children are the common basis for all dimensions of sustainable development, as a child of today is the adult of tomorrow. Underpinning the importance of children, it is therefore necessary that beyond sheer survival, children should have a right to thrive, develop to their full potential and live in a sustainable world. The Child Right Act was a deliberate policy to enhance the development of the full potentials of children. The Sustainable Development Goals (SDGs) recognizes the children as agents of change. In the UN seventeen (17) SDGs, Early Childhood Care Education (ECCE) is included in goal four (4). The goal states that nations should "ensure inclusive and equitable quality education and promote life – long learning opportunities for all;" the goal 4 further states that by 2030, all girls and boys should have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.

Early Childhood Care Education (ECCE) is the holistic care and education given to children between the ages of 0-5 years. According to the Federal Republic of Nigeria (FRN, 2004), Early Childhood Care Education is the education given in an educational institution to children prior to their entering the formal primary school. It is the embryo of the whole education system; early Childhood Care Education which is an integral part of the Nigerian Universal Basic Education (UBE) is to be provided by Government free; it is compulsory, universal and qualitative. The purpose of ECCE as enshrined in the National Policy on Education (FRN, 2004) are:

- a. Effect a smooth transition from home to home to school.
- b. Prepare the child for the primary level of education.
- c. Provide adequate care and supervision for children while their parents are at work.
- d. Inculcate social, moral norms and values.

- e. Inculcate in the children the spirit of enquiry and creativity through the exploration of nature, environment, art, music and the use of toys.
- f. Development of a sense of co-operation and team spirit.
- g. Stimulate in the child good health habits.
- h. Teach the rudiments of numbers, letters, colours, shape etc.

Early Childhood Care and Education (ECCE) is a programme aimed at the physical, cognitive, emotional, moral and psycho-social development of children. It is aimed at a holistic development of children irrespective of their sex, background, culture, religion, disability or challenges and health status. To develop psycho-socially, develop cooperation and team spirit as enshrined in the National Policy on Education (FRN, 2004), the Nigerian children from diverse cultural background must be accommodated in an inclusive school environment for inclusive education.

Inclusive Early Childhood Care Education (ECCE) is emphasized in the 2030 agenda (SDGs), as stated in Goal four (4) of SDGs. Inclusive education is a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, culture and reducing exclusiveness from education and within education. Inclusive education is aimed to facilitate learning, culture and reducing exclusion from education and within education. It is aimed to facilitate learning environment where teachers and learners embrace and welcome the challenges and benefits of diversity. In inclusive education, all learners no matter their differences should be accommodated appropriately in the same learning environment (Obani, 2012). Inclusive early childhood environment is an environment where all children irrespective of their religion, culture, disabilities are cared for (Ndifon, 2014). Inclusive school environment tends to include rather than exclude, to integrate rather than segregate, involve most, if not all the teachers instead of a few, to recognize, adopt and where necessary effect changes in the whole society (Spungin, 2009). Inclusive education has the tendency to reduce, if not completely eliminate, fear among children. This is achievable as a result of the social interaction that is allowed among learners and teachers of divergent characteristics (Abang, 2003). Inclusive education enables children to gain confidence in themselves and promote social behaviours like cooperation and team work (Abang, 2003).

An inclusive classroom is that which is designed to accommodate, without bias, all manner of learners; it is essentially the opposite of a special classroom where learners designated as “special needs” are accommodated. Learners spent more time in the classroom; seating arrangement influences social skills in learners (Barth, Dunlap, Dane, Lochman & Wells, 2004). The physical space of the class, in addition, influences cognitive, physical, emotional and psycho-social development of learners especially at the foundation level of Early Childhood Care Education (ECCE).

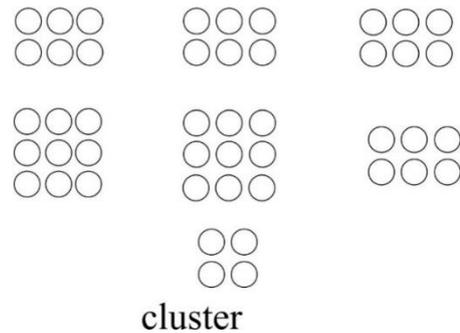
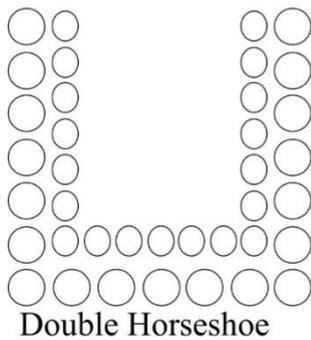
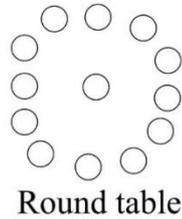
In considering the position of seats in the classroom, Denton (2002) asserts that the physical wellbeing of the learners, their ages, sex are taken into consideration. Those who take what seat in a traditional classroom setting are considered based on their heights, body sizes, hearing and visual abilities and physical needs. This of course is against the principles of inclusive education as learners are expected to be allocated seats without prejudice. Classroom seating arrangements should provide equal opportunities for all manner of learners to learn without encumbrances. Classroom seating arrangement helps to stimulate academic and social development of learners (Mariola, Yronne, Eliane & Antonius, 2016).

Classroom seating arrangements are a main part in a teacher's plan for classroom management. Not only do the teachers need to consider the physical arrangement of the room but also the nature of the learners involved (Roinds & Gensemer, 2017). The consideration in arranging the physical environment of the room is so that learners could easily interact with themselves and the teacher in the process of teaching and learning, and also to enhance efficient teaching and learning process. A good classroom arrangement should be that which would enable the teacher to walk round the room without the students moving their desk. To enhance this, the Federal Republic of Nigeria (FRN, 2007) specified that "an ECCE classroom should be spacious enough to accommodate not less than 35 learners and two caregivers". Teachers need to take into account that learners' seats should not hinder their interaction with them and their roommates.

The physical setup of a classroom space is significant in developing learners socially. Instructional communication theory suggests that the seating arrangement can impact on how the instructor communicates with learners, and how learners interact with one another, both of which can influence speaking and listening (Harvey & Kenyon, 2013). Roinds and Gensemer (2017) in their survey of classroom seating arrangements, identify the following classroom seating arrangements:

- Traditional seating which consists of seat fixed in rows. The learners face the teacher while their backs face one another.
- Roundtable seating arrangement which consists a single large table in the center and learner's desk surrounding it in a circular form.
- Horseshoe seating arrangement: This arrangement is also called semi-circle arrangement. As the name implies the seats are arranged in a semi-circle form facing the instructor's desk.
- Double horse shoe which involves an inner and outer horse shoe.
- Cluster seating arrangement where seats are arranged in clusters. A cluster consisting of four or five chairs in one table and each cluster facing one another.

A diagram of the seating arrangements described above is shown thus:



Seating arrangement could affect learners' social skills positively or negatively. Social activities in Early Childhood Care Education (ECCE) includes teamwork, cooperation/collaboration, group discussion, talking and listening, play, self-expression, among others (FRN, 2004). Other social activities involve division of labour, face to face interaction, assignment of roles to learners, group processing and group reward (Tom, 2013).

The traditional classroom setup minimizes learner-learner communication but places focus on learner-teacher interaction, only the learners in the front row could interact freely with others (Roinds & Gensemer, 2017), and more behavioural problems occur at the back row of the traditional classroom seating; the arrangement at the back row does not encourage group work or projects (Harvey & Keyon, 2013). Contrarily, Koki (2000) asserts that traditional classroom arrangement encourages play among young learners as children can stand and exchange seating positions when necessary.

According to Koki (2000), students' desks do not touch each other but line up in rows and columns to allow for easy movement and interaction between students-students and students-teachers. Roinds and Gensemer (2017) ascribe behavioural problem in a traditional classroom seating to poor managerial skills of the teacher. They assert that the teacher needs to quickly map out social interactions between and amongst learners so they know their roles in the classroom. They need to decide which learner can handle which role, be it at the back or front row of the classroom. According to Roinds and Gensemer (2017), the learners in a traditional classroom are in a perfect interactive arrangement if the teacher is monitoring the class. Since the learner are all facing the class and can see the board, overhead projector, screen and other instructional aids, it becomes easy for the teacher to monitor the learners and bring out the desirable behaviours in them (Nnamdi, 2006). For pupils to achieve a comprehensive, well-round education, integrated teamwork on several rows and columns of a traditional classroom, the teacher needs to be up and doing (Tensen, 2005). According to Tensen (2005), consistent and effective use of social skills in teamwork is more likely to occur when the traditional classroom is properly managed by the teacher.

The horseshoe or semi-circular classroom arrangement is said to encourage group discussion, group work and collaboration among students (Roinds & Gensemer, 2017). The "U" shape seating arrangement allows for free movement and interaction among instructor-students and student-student; it encourages students' self-expression and cooperation in group work (Koki, 2000). In the semi-circle arrangement, because there is an opening in the front, learners can come out to demonstrate whatever is being taught and the teacher can walk along the horse-shoe freely to guide the learners (Kagan & Kagan, 2013). The horseshoe arrangement allows the teacher and the students to freely share their different views and ideas in the class. Students freely walk round the class to ask questions, interact with one another and to demonstrate what they are taught (Kagan & Kagan, 2013). In this arrangement, Harvey and Kenyon (2013) assert that the teacher can easily see each student and they can see him/her and the instructional aids. The philosophies of teachers using this arrangement can be direct instrument, child-run or collaborative. In this arrangement, the philosophy could be implemented in the classroom, as it allows for flexibility of instructional strategy (Ajayi, 2001). Because all students can see each other in the horseshoe seating arrangement, they can have debates and group discussion among themselves, they can give ideas on how they want to do any activity and the seating arrangement could probably accommodate the activities (Ajayi, 2001). The semi-circle seating if not effectively managed could be bad because the teacher would have a hard time meeting the students one-on-one; this is because seats are very close to each other and the seats take up almost the entire classroom leaving small space for display (Roinds & Gensemer, 2017).

Cluster seating arrangement is one of the best for learners, especially in terms of students' group work or project since the learners are already seating in groups. The seats are arranged in groups of four to five learners each forming a cluster (Harvey & Keyon, 2013). This is one of the seating arrangements recommended by the Federal Government of Nigeria for ECCE. The early learners are to sit on a child size chair, four or five surrounding a table to enhance group work, play and learners-learners interaction (FRN, 2004). Roinds and Gensemer (2017) describe cluster seating as arrangement where the classroom is scattered around with cluster, so that each cluster would be far apart enough to allow the teacher walks freely in the class without bumping into students' desks or chairs, while inspecting the groups or clusters. It encourages group work and cooperation amongst teachers-students and students-students. Since play-way instructional strategy is more appropriate for early learners and cooperative learning is recommended, the cluster seating arrangement becomes the best classroom seating arrangement for the pre-primary classes (FRN, 2004). Cluster seating encourages social life amongst learners (Koki, 2000).

Statement of Problem

Classroom seating arrangement simply involves the consideration of the school administrator(s) placing the learner's desk in an acceptable position to enhance effective curricula and extra-curricula implementation. The physical setup of the classroom space done after considering many variables all geared toward effective teaching and learning. Social skill is one of the key areas of development in early learners which is often neglected. More attention is given to cognitive, emotional and physical domains of learner than psycho-social. The focus of this study is to examine the relationship between physical classroom arrangement in an inclusive school system and the development of social skills in young learners of Early Childhood Care Education (ECCE).

Objective of the study

The main objective of this study is to examine the relationship between classroom seating arrangement and the development of social skills in Early Childhood Care Education (ECCE) learners. Specifically, the study is to:

- 1) Examine the relationship between traditional classroom seating arrangement and the development of cooperative/teamwork in ECCE learners.
- 2) Find out if there exists any relationship between Horseshoe classroom seating arrangement and the development of speaking skills in ECCE learners.
- 3) Determine if there exists any relationship between Cluster classroom seating arrangement and the development of listening skills in ECCE learners.

Hypotheses

To guide the study, three null hypotheses were formulated thus:

Ho1: There is no significant relationship between Traditional classroom seating arrangement and the development of cooperative/teamwork skills development in ECCE learners.

Ho2: There is no significant relationship between Horseshoe classroom seating arrangement and the development of speaking skills in ECCE learners.

Ho3: There is no significant relationship between Cluster classroom seating arrangement and the development of listening skills in ECCE learners.

Methodology

A descriptive survey research design was adopted for the study. A descriptive survey design involves the collection of data using questionnaire for the purpose of describing and interpreting existing conditions or quality regarding a given population (Anaekwe & Ozogbo, 2006). Three null hypotheses were formulated to guide the study. The study was carried out in Calabar Metropolis of Cross River State which comprises of two local government areas, Calabar Municipality and Calabar South. The population of the study comprised of 3,832 ECCE learners from the 45 public ECCE centres in Calabar metropolis.

Data was collected using a 27 item researchers-made questionnaire titled “Classroom Seating Arrangement and Pupil Social Skill Development Questionnaire (CSAPSSDQ)”. The questionnaire was made up of sections A and B. Section A was an introductory section which concerns with the respondents’ demographic information while section B was to elicit responses on classroom seating arrangements and social skill development. Specifically, 10 items sought responses for a traditional classroom arrangement and cooperative/team work in learners, 7 items for Horseshoe and speaking skills in learners and 10 items for cluster seating arrangement and listening skill in ECCE learners. The instrument was face validated by 3 experts from Early Childhood Education, and Test and Measurement Department. A reliability test using 20 ECCE learners outside the study area was made and analysed with Cronbach Alpha yielding a coefficient of .81; this instrument was therefore adopted for the study. A five-point modified likert type rating scale of excellent (E), very good (VG), Good (G), fair (F), poor (P) weighted 5, 4, 3, 2 and 1 respectively was used for analysis, and Pearson Product Moment Correlation coefficient (PPMC) was used for testing the three null hypotheses.

Presentation of results

The data collected were analysed with Pearson product moment correlation statistics (PPMC) at .05 level of significance.

Ho1: There is no significant relationship between traditional classroom seating arrangement and the development of cooperative/teamwork skill in ECCE learners.

Table 1: Pearson product moment correlation of the analysis of the relationship between traditional classroom seating and the development of cooperative/teamwork skills development in ECCE learners

N=105	$\sum x \sum y$	$\sum x^2 \sum y^2$	$\sum xy$	Df	r-cal	r-tab	α
A(x)	2020	39050					
			31182	103	0.62	0.164	0.05
A(Y)	1615	25016					

From table 1, the calculated value (r-cal) at 0.05 level of significance and 103 degree of freedom (df) is 0.62. This suggests a positive correlation between traditional classroom seating arrangement and development of cooperative/teamwork skill in ECCE learners. Hence, the result is statistically significant. We therefore reject the null hypothesis one and conclude that there exists a significant relationship between traditional classroom seating arrangement and development of cooperative/teamwork skill of ECCE learners.

Ho2: There is no significant relationship between Horseshoes classroom seating arrangement and the development of speaking skills in ECCE learners.

Table 2: Pearson product moment correlation analysis of relationship between Horseshoes classroom seating arrangement and the development of speaking Skills in ECCE learners

N=105	$\sum x \sum y$	$\sum x^2 \sum y^2$	$\sum xy$	Df	r-cal	r-tab	α
A(x)	190	37020					
			34504	103	0.95	0.164	0.05
A(Y)	1515	48908					

From table 2, the calculated value (r-cal) at 0.05 level of significance and 103 degree of freedom (df) is 0.95. This means a positive correlation between horseshoes classroom seating arrangement and the development of speaking skills of ECCE learners. The result is statistically significant. The null hypothesis two is therefore rejected thus implying that there exists a significant relationship between horseshoes

classroom seating arrangement and the development of speaking skills of ECCE learners.

Ho3: There is no significant relationship between cluster classroom seating arrangement and the development of listening skills in ECCE learners.

Table 3: Pearson product moment correlation analysis of relationship between cluster seating arrangement and development of listening skills in ECCE learners

N=105	$\sum x \sum y$	$\sum x^2 \sum y^2$	$\sum xy$	Df	r-cal	r-tab	α
A(x)	1824	36867	47812	103	0.60	0.164	0.05
A(Y)	1672	4781					

Table 3 shows that the calculated value (r-cal) at 0.05 level of significance and 103 degree of freedom (df) is 0.60; this means a positive correlation between cluster classroom seating arrangement and the development of listening skill of ECCE learners. With this result, we therefore conclude that there exists a significant relationship between cluster classroom seating arrangement and the development of listening skills in learners.

Discussion of the findings

The result of analysis of hypothesis one revealed that there exists a significant relationship between traditional classroom seating arrangement and the development of cooperative/teamwork skills in Early Childhood Care Education (ECCE) learners in an inclusive classroom setting. This result is in agreement with Koki (2000) who asserts that traditional classroom seating arrangement encourages play among young learners as the arrangement does not prevent them from standing and exchanging seating positions. The result is also in congruence with Roinds and Gensemer (2017) who ascribed pupils' collaborative activities in traditional classroom to the managerial skills of the teacher or instructor. According to Roinds and Gensemer (2017), the learners in the traditional classroom arrangement are in a perfect touch with one another if the teacher is monitoring the class. Nnamdi (2006) in his study of classroom seating arrangement and pupil cooperation asserts that pupils can achieve integrated teamwork on rows and columns of a traditional classroom arrangement.

The result in hypothesis two indicates a significant relationship between horseshoe classroom seating arrangement and the development of speaking skills in ECCE learners in an inclusive classroom setting. The result is in line with Roinds and

Gensemer (2017) who assert that the “U” shape seating arrangement allows for free movement and communication among learners. The result is also in agreement with Kagan and Kagan (2013) who assert that horseshoe classroom arrangement allows teachers and the students to freely share their views and ideas in class; it encourages students to freely walk around the classroom and the instructor questions and demonstrates the topic of the day. These activities would encourage speaking in the learners.

The result in hypothesis three shows that there exists a significant relationship between clusters classroom seating arrangement and the development of listening skills in ECCE learners. This result is a pointer to the recommendations of cluster classroom seating arrangement in ECCE by the Federal Republic of Nigeria (FRN, 2004). The result is in line with Roinds and Gensemer (2017) who assert that cluster seating arrangement encourages students’ group work/project. In group work, students will interact and listen to themselves to achieve results. Koki (2000) agrees that cluster seating arrangement encourages play-way instruction strategy. This strategy involves learner’s language skills of listening and talking.

Conclusion

From this study, it was clear that seating arrangement in an inclusive Early Childhood Care Centres improves team-working of learners, speaking skills of learners and listening skills of learners in an inclusive ECCE system. It can therefore be concluded that classroom seating arrangement enhances learners’ social skills and fosters inclusion.

Recommendations

Based on the findings, the following recommendations are made:

1. Traditional seating arrangement should be effectively managed in an inclusive school system to promote social skills development in children.
2. Cluster classroom seating arrangement should be encouraged in ECCE centres.
3. Horseshoe classroom seating arrangement should be encouraged in ECCE centres.
4. Government and ECCE centres owners should provide adequate space and desk for children.

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