

Influence of Teachers' Classroom Leadership Behaviour on Secondary School Students' Cognitive Development in Cross River State, Nigeria

DR. (MRS) JOSEPHINE USHINYIN UNDE¹, MRS. EMILIA E. OKON²

^{1,2}Cross River State College of Education, Akamkpa, Cross River State.

ABSTRACT: The study was conducted to determine the influence of Teachers' classroom leadership behavior on students cognitive ability in Cross River State, Nigeria. Three (3) research questions were formulated to guide the study and relevant literature was reviewed. A survey research design was adopted which made use of a sample of one thousand, two hundred and sixty senior secondary school students from 36 sampled schools across three educational zones in the state using multistage sampling technique; two research instruments (a questionnaire and pre-post cognitive ability test) were employed for data collection, a reliability coefficient of 0.78 was established, using mean score and standard deviation to answer the research questions. The findings of the study revealed that a classroom environment where teachers exhibit highly appropriate leadership behavior is more promotive of cognitive ability in learners, than where the teachers exhibit autocratic or laissez-faire leadership behavior. One of the recommendations was that, teachers should show interest in learners affairs, be objective or moderate in their leadership qualities.

KEYWORDS: classroom teachers, leadership behavior, and learners cognitive development.

INTRODUCTION

Man is a conscious, rational being whose consciousness and rationality is developed through social interaction. The classroom setting, interactive decision making refers to decisions made during the act of teaching.

The teacher is seen as constantly assessing the situation, processing information about the situation, making decision about what to do next, taking responsibility in his/her actions or decisions, guiding action on the basis of these decisions, and observing the effects of the action on the learners (Clark, 2009).

Learners and teachers interact with one another for a number of reasons and on a continued basis throughout the school period. Henson (2014) observed that teachers influence learners by the kind of social atmosphere they establish in their classrooms, and by patterning of their interactions with individual learners. It is believed that the teacher is more influential than any one else in the setting of the classroom climate with the teachers leadership behavior as the central determinant.

Leadership here means the ability to cause others to be engaged in worthwhile activities towards the attainment of lesson objectives, confidence building in the learners, appearances and social relationships.

Teachers' classroom behavior in this context means any teachers decision, and or action which in the context of classroom interaction help to shape classroom learning and behavior of the learners, including influence on cognitive development among learners.

Perhaps, many school drop-outs who have taken to anti-social behavior must have done so because of some unacceptable acts, remarks, comments or statements once made by their teachers in the past during teaching-learning encounters.

Teachers' decision and actions that help shape the classroom environment and invariably influence learners' cognitive ability and achievement motivation are influenced by their beliefs, dispositions (Bassey, 2006) and teachers stance (Barner and Sapona, 2011) as well as their general personality traits (Uba, 2015).

Classroom environment must be designed to support intellectual risk taking, and foster intrinsic motivation so that learners will be creative, and self-directing in their learning.

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Creating and managing such environment is central in the work of teachers (Ushie, 2010). Teachers also have to create the right attitudes in the learners, viewing their own leadership function as an enabling activity; establishing the conditions and interacting with learners, in ways that enhance their learning (Froyen, 2013).

Skinner (1969) and Helmholtz (1934) see learning as an association between stimulus and response perception, where most factors that determine behaviour lie in the environment. According to these researchers, a given act is followed by an experience that is consequence of the act; what the individual sees as consequence that alters his/her behaviours. Similarly, Nwankwo (2016) stated that teachers who exhibit democratic or autocratic classroom leadership behavior, and other role behaviours during classroom interaction may inadvertently be exposing their learners to behavior patterns which they imbibe to the good or detriment of themselves or the larger society.

Some teachers unwillingly embarrass, ridicule or hurt the learners to the extent that feelings of inferiority arise. Many students dropout of school because they simply cannot tolerate more failures, and poor social relationships from teachers and peers. Generally, a learner who develops poor cognitive ability and self-worth due largely to teachers' negative role behaviours in the classroom becomes frustrated, anxious and loss of self-confidence and may venture into violent behavior in and outside the school environment.

Ukpong (2000) noted that individuals may differ in the way they perceive a particular stimuli (including classroom teachers), resulting in different behavioural responses which can be attributed to the perceivers need and novelty of the stimulus object (including the teacher). The learners emotional stability, achievement motivation and cognitive ability would be low if perception about the classroom teacher is one who is fun of ridiculing and criticizing learners best efforts in the class. Lindgren and Henry, (1976) also stated that some teachers have become cold and controlling as contrasted with warm/permissive (being harsh, inflexible, hostile in class) affecting learners cognitive ability and their achievement motivation generally, or rigorous and dynamic teachers as contrasted with dull and Quiet type (being stimulating, excitable, gives support and knowledgeable) affecting learners attitude/readiness towards school work positively.

STATEMENT OF THE PROBLEM

Observation over the years has shown a highly disturbing trend of low level of cognitive development/abilities among senior secondary school students in Cross River State, Nigeria. (Isangedighi, 2007).

This observed trend has continued to pose serious concern to the government and parents as well as other education stakeholders. Education stakeholders are worried because poor academic achievement motivation and cognitive abilities of learners usually lead to increased school dropouts, increased examination malpractice, truancy, lack of desire for achievement and a general downward trend in qualities of our secondary school products.

In response to the situation, some studies have been carried out and the need to address factors such as Home, School environment and facilities stressed. Besides, governments have tried to organize workshops aimed at improving teachers' professional skills and ethics.

In spite of all these, the problem of poor cognitive ability of a secondary schools students especially in the study area has persisted (Isangedighi 2007). It is in this regard that the researchers have decided to determine the influence of teachers' classroom leadership behavior on students cognitive ability in Cross River State.

AIMS AND OBJECTIVES OF THE RESEARCH STUDY

The overall aim of this research work is to determine the influence of teachers' classroom leadership behaviour on secondary school students' cognitive ability in Cross River State, Nigeria. The following specific objectives are formulated to guide the study:

- Determine the influence of Teachers' classroom democratic leadership behaviour on students cognitive ability.
- Determine the influence of Teachers' classroom autocratic leadership behavior on students cognitive ability.
- Determine the influence of Teachers' classroom laissez-faire leadership behavior on students' cognitive ability.

Research questions:

The following research questions guided the study:

1. To what extent does teachers' classroom democratic leadership behavior influence learners cognitive development.
2. To what extent does classroom teachers autocratic leadership behavior influence learners' cognitive development.
3. To what extent does classroom teachers' laissez-faire leadership behavior influence learners cognitive development.

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Scope of the study

This study is limited to secondary schools in Cross River State, Nigeria. Therefore, any generalization of the results should be done in context of Cross River State or any geopolitical area having similar characteristics.

However, the study is limited in scope to two (2) variables namely; classroom teachers leadership behavior and students cognitive development.

REVIEW OF RELATED LITERATURE

Teachers classroom democratic leadership behaviour and students cognitive development.

Learners and teachers interact with one another for a number of reasons and on a continued basis throughout the school day. As there is usually only one or two teachers particularly in the secondary school per subject to respond to the need of a number of learners, their time, and leadership behavior is in great demand (Isangedighi, 2007).

Demike (2007) and Isangedighi (2007) emphasized that one major characteristics of a classroom teacher is his/her leadership role, and that the teacher is more influential than anyone else in the setting of the classroom climate with the teachers leadership behavior as the central determinant.

Democratic leadership behavior is one which is characterized by positive and cordial classroom atmosphere, where there is free exchange of ideas and insights. The teacher also make attempts to initiate, and to maintain forms of behavior that are permissive, accepting and supportive (Lindgreen and Henry, 1976, Danies 2005).

Green (2004) in his research studies found that learners taught using democratic principles and discussion method had the best scores, showed greater comprehensive evaluation of themselves in terms of totality of cognitive abilities, qualities, values and judgments, as well as need for achievement.

Berry and Johnson (2005) commenting on teachers democratic leadership behavior in the classroom and influence on cognitive development of the learners stated that successful leadership in meaningful human affairs in the classroom is possibly the most important aspect of teaching, since instructions that lead to achieving learning objectives depend on how the teacher performs in the leadership area. Also, according to Ushie (2010), learners who work under proper leadership behavior of the teacher tend to like their studies, tend to strive for self-enhancement and making others form good opinion of them.

Teachers' classroom autocratic leadership behavior and students cognitive development

In the classroom setting, interactive decision-making refers to decisions made during the act of teaching. The teacher is seen as constantly assessing the situation, processing information about the situation, making decision about what to do next, taking responsibility in his/her actions or decisions, guiding action on the basis of these decisions, and observing the effect of the action on the learners. (Ushie, 2010).

According to Isangedighi (2007), the teacher is the leader and the executive of the class he teaches. In playing leadership role, some teachers are autocratic while some are democratic.

In autocratic classroom leadership behavior, the teacher is the sole active agent in the teaching/learning process while the learners are mere passive receivers of information.

Henson (2004) and Ushie (2021) all noted that authoritarian modes of dealing with others especially in the classroom setting is characterized by attempts to dominate, direct and set limitations to the behavior of others. They emphasized that this could result in creation of high anxiety, stress, loneliness and poor cognitive development on the part of the learners and increased likelihood of isolation, poor relationships and feeling of emptiness.

Walter (2016) argued that a teacher who posses a dominant aggressive leadership quality is autocratic and a terror to his/her learners. Such teachers according to the researcher is rigid and do not encourage learners in independent activities, foster negative attitudes and cognitive development. Also, their learners show increased tension, hostility and have greater chance of having later problems and difficulties in social adjustment and achievement motivation.

Hall (2007) found out relationship between autocratic leadership of teachers and cognitive development of learners. According to him, the greater the hostile, impulsive, inflexible, harsh, and rigid attitudes of the teachers, the more learners become pas sive listeners and are engaged in off task behaviours. The researcher also stated that, because of the greater spatial distance resulting from the teachers classroom autocratic leadership behaviours, learners' need to set realistic goals, have confidence in their ability to handle specific problems and seek feedback on academic performance reduced drastically.

The research investigations by Miller and Rowan (2006), Ebong (2008) and Asagwara (2017) all emphasized that classroom environment filled with tension, frustration, anxiety and hatred is not conducive for both the teacher and the learners nor is it

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conducive for learning. Specifically, Ebong stated that such classroom environment creates fear, anxiety and tension on the learners leading to emotional upset for such learners, ego-identity crises in the learners, as well as poor cognitive development.

Teachers' classroom lazier-faire leadership behavior and students' cognitive development

In classroom learning activities, the role of the teacher as the authority figure in the class is fundamentally important, the teacher is the one who has the responsibility of controlling and evaluating learners, which implies that classroom activities depends essentially on teachers variation in the exercise of his rights and authority (Isangidighi, 2007). Some teachers carryout such responsibility so well that everything goes on very smoothly, while in other classroom situations, there is chaos and loss of control. Berry and Johnson (2005) commenting on teacher's leadership in the classroom and influence on cognitive development of the learners stated that teachers who exhibit lazier-faire leadership behaviours do provide minimal direction during the classroom interaction, provide limited guidance to learners and allow low level of feedback mechanism resulting in poor cognitive development of the learners. This fact is supported by Ushie (2021) when he stated that lazier-faire teacher attitude in the classroom interactive process shows non-leadership behavior; the consequences of the classroom attitude/behavior of the teacher according to the researcher leads to:

- Poor improvement in learners academic achievement resulting from poor cognitive development
- Lack of confidence in themselves and in performing any school task.
- Low self esteem on the part of the learners
- Lowers the school standards because of low value of the products (school learners).
- May create emotional happiness or mood in the learners based on the classroom situation
- May create rowdiness or chaos in the classroom.

Further studies on lazier-faire attitude of classroom teachers and learners academic achievement by Heckhausen (2007), reveal that, such teachers are not dynamic, show non-challent attitude during classroom interaction, do not care about whether learners are attentive or not, attend classes, nor do their assignments, and does not care whether there is boredom and confusion during classroom interaction or not etc.

The researcher however noted that good teacher practices and classroom organization, especially leadership behavior should be positively related to learners achievement motivation and fundamental necessity for teachers instructional success.

RESEARCH DESIGN

The study adopted a descriptive survey design. It is appropriately when a study is directed towards individuals and their opinions. This was considered ideal because as Abugu and Eze (2008) stated that descriptive survey research gathers data at a particular point in time with the intension of describing the nature of existing contributions, identifying standards which existing phenomenon can be compared. In fact, it is employed to obtain a picture of the existing conditions in a particular situation at the time of investigation.

AREA OF THE STUDY

The study area is Cross River State, Nigeria. Its capital is Calabar with a total land mass of 21,156km² and a projected population of 4,604,446 people. The state comprises of five major ethnic groups namely: Efik, Yakurr, Ejagham, Bette and Bekwara. Educationally, the state has five Tertiary Institutions with many public and private primary/secondary schools established across the three senatorial zones. Cross River State is also rich in cultural heritage, forest reserve areas within Boki, Akamkpa and Oban also in Akamkpa.

The people are engaged in diverse occupations for livelihood most of which are farming, business, fishing among others. Cross Riverians are pluralistic in spoken/written languages ranging from Efik, Ejaham, Bekwara etc.

Population

The population of the study comprised of all senior secondary two (2) students in all public secondary schools in Cross River State. The estimated population is 16,550 students drawn from 308 public secondary schools across the state for the 2023/2024 academic session (statistic division of PPSSB, Calabar 2023).

Sample and sampling technique

Stratified random sampling method that is multi-stage was adopted. This method was employed because of the heterogeneity of the population and for fair representation of all elements/subjects in the sub-groups and also to increase statistical precision or reduce sampling error.

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Schools in the state were first stratified based on educational zones, followed by local government areas. By simple random sampling, five local government areas from each education zone (Calabar, Ikom and Ogoja) were selected giving a total of fifteen local government areas in which schools were located. Eighteen (18) co-educational senior secondary schools were selected according to the basis of stratification. Also seventy (70) students were randomly selected from each school to give a total of 420 subjects (students) per zone and 1,260 students as sample size.

Research instrument for data collection

The research instrument used for data collection in this study was a questionnaire titled; Teachers Classroom leadership behavior questionnaire (TCLBQ). The questionnaire had four (4) sections with a total of 40 items, designed to elicit responses that were clear enough to indicate subjects opinion about their teachers. Also, an oral interview was conducted with some of the subjects. Finally, a pre and post cognitive test was carried out to ascertain any difference between the two.

Validation and reliability of the research instruments

The instruments were subjected to preview and independent expert judgement for face and content validity. The reliability of the instrument was achieved. It was first trial-tested with a sample of 100 respondents who were not part of the sample of the study. The reliability of the instrument was further achieved using Cronbach Alpha method with a co-efficient of 0.78 which revealed that the instrument was reliable. Also, the instrument was administered by the researchers with the help of research assistants. Means and standard deviation were used to answer the research questions.

RESULTS

Research question 1: To what extent does teachers' classroom democratic leadership behavior influence learners cognitive development

Table 1: Analysis of mean scores of influence of teachers democratic leadership behavior on learners cognitive development.

S/N	Items (My Teacher)	Mean	STD	Decision
1	Advices students to always read their books	30.04	0.93	Agree
2	Is always willing to change his/her decision	3.91	0.75	Agree
3	Presents his/her lessons properly	3.71	0.97	Agree
4	Does not motivate students to learn	2.46	1.08	Disagree
5	Is often angry towards his students	2.64	1.18	Disagree
6	Does not assist learners who need help	2.34	1.08	Disagree
7	Encourage students to do their school assignments	2.53	0.96	Agree
8	Makes classroom conducive for learning	2.59	0.88	Agree
9	Very accommodating	2.79	1.00	Agree
10	Allows for feedback during classroom interaction	2.54	0.99	Agree
11	Is helpful	2.60	0.92	Agree
12	Check students assignment always	2.51	0.92	Agree
	Grand (Total) mean	2.77	0.93	Agree

The analysis in table 1 which sought to find out the views of the respondents about impact of teachers' classroom democratic behavior on learners' cognitive development rated all items above a mean score of 2.50 with grand mean of 2.77: this implies that the respondents (students) sees a classroom teacher who exhibits democratic leadership behavior as being friendly, orderly, listen and addresses students academic challenges, encourages students to study, makes classroom environment conducive for learning, etc.

Research question 2

To what extent does teacher's classroom autocratic leadership behavior influence learners' cognitive development

Table 2: Analysis of mean scores of influences of teacher's classroom autocratic leadership behavior on learners' cognitive development

S/N	Items (My Teacher)	Mean	STD	Decision
13	Is authoritarian	3.07	0.81	Agree
14	Is always aggressive in class	2.51	0.98	Agree

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15	Likes to control others	2.62	0.96	Agree
16	Shows love to learners	2.56	1.04	Disagree
17	Often abuse learners in class	2.58	1.04	Agree
18	Does not help learners with lesson problem	2.59	0.92	Agree
19	Carry along all learners while teaching	3.48	1.04	Disagree
20	Encourage learners to study well	3.47	1.02	Disagree
21	Is impulsive on the learners	3.46	1.06	Agree
22	Help learners to develop learning strategies	3.43	1.03	Disagree
23	Is helpful	2.50	1.00	Disagree
24	Fail most of his learners	2.61	0.94	Agree
	Grand mean	2.79	0.94	Agree

Items 13 – 24 in table 2 sought to identify from the respondents the impact of teachers' classroom autocratic behavior on learners cognitive development. It was discovered from the finding derived from the responses that, respondents rated all items above a mean score of 2.50 except items 24.

This implies that respondents see a classroom teacher with autocratic leadership behavior as being authoritarian, impulsive, aggressive in class, abusive, non-motivating and accommodating and above all does not care about learners need for achievement/cognitive development.

Research question 3

To what extent does classroom teachers lazier-faire leadership behavior (attitude) influences learners cognitive development.

Table 3: Analysis of mean scores of influence of classroom teachers lazier-faire leadership behavior on learners cognitive development

S/N	Items (Laizer-faire attitude)	Mean	STD	Decision
25	Does not care about noise-making in the class	2.84	0.98	Agree
26	His class is always rowdy	2.86	0.97	Agree
27	Very strict during teaching-learning	2.50	0.94	Disagree
28	Show interest in learners	2.75	0.96	Disagree
29	Stimulate learners decision to learn	2.50	0.95	Disagree
30	Can be dominative in classroom verbal instruction	2.81	1.00	Agree
31	Does not allow for classroom verbal interaction	2.90	1.08	Agree
32	Is very friendly	2.52	1.01	Agree
33	Does not promote positive cognitive development	2.58	1.02	Agree
	Grand mean	2.67	1.00	Agree

Data in table 3 revealed that all the items from 25-33 except 26 and 31 had a mean score of respondents ranging from 2.52 to 2.84 which were the criterion mean for Agree.

This implies that, the respondents see classroom teachers lazier-faire attitude as being one who does not care about learners interest, does not stimulate their desire to learn, does not allow for classroom verbal interaction, does not promote positive cognitive development of the learners etc.

Summary of findings

1. A classroom teacher who exhibits democratic leadership behavior is characterized by positive and cordinal classroom atmosphere where there is free exchange of ideas and insights. The teacher is interested in the task as well as those who are to achieve the stated objectives.
2. In autocratic classroom leadership behavior, the teacher is the sole active agent in the teaching-learning process while the learners are mere passive receivers of information.
3. In lazier-faire classroom leadership behavior, the teacher is perceived as being charlatan, not having interest in learners cognitive ability very often, complex in behavior having care-free attitude, and does not stimulate learners desire to learn, non-motivating, very funny in class etc.

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DISCUSSION OF THE FINDINGS

In table 1, the study clearly revealed the behavior that characterize classroom teacher democratic leadership behavior and the negative or positive impact on learners cognitive development. The findings agree with research results of Henson (2014) who found out relationship between democratic leadership of teachers and cognitive development of learners. According to him, a teacher needs to be warm, flexible, encouraging, initiative and responsible, coordinational and above all create conducive classroom atmosphere for learning (if he/she wants the lesson objectives to be achieved). This result also supports the views of Isangedighi (2007), Ebong (2008) and Ushie (2019) who posited that teachers classroom leadership behavior can affect the learners cognitive activities, their need or desire to achieve as well as their self-concept positively or negatively. According to them, the teacher is the boss and the decisive element in the classroom situation, he creates the mood, dictates the pace and his power to mold or to dissolve the person in the learner is elastic.

The study also revealed clearly in table 2 what constitutes the behavior of an autocratic teacher. This result agrees with Hall (2007) who found a significant relationship between autocratic leadership of teachers and cognitive development of learners. According to him, the greater the hostile and rigid attitudes of the teacher, the more the learners become passive listeners and are engaged in off-task behaviours.

The researcher also stated that because of the greater spatial distance resulting from the teachers autocratic attitudes learners need for achievement, need to set realistic goals, seek feedback on academic performance and confidence in themselves reduced drastically.

The result obtained in table 3 shows that, there are consequences of teachers' lazier-faire attitudes on learners' cognitive ability. In support of these findings, Isanghedighi (2007) and Ushie (2010) all emphasized that the totality of learners abilities, qualities, values and judgements, as well as need or desire to study will be eroded if their classroom teachers' behavior is persistently lazier-fair attitude.

CONCLUSION

On the basis of these findings, it was concluded that a classroom environment where the teacher exhibit highly appropriate leadership behavior is more promotive of cognitive development in learners, than a class where the teachers exhibit moderately appropriate and inappropriate classroom leadership behaviors.

RECOMMENDATION

1. Since it has been established in this study that teachers classroom leadership behaviours influences learners cognitive abilities, teachers should show interest in learners' affairs, be objective or moderate in leadership behavior, be a model and as a surrogate parent, play a helping role of being counselor, friend and a confidant. It is hoped that these good qualities of the teacher would help to raise the psychological health and emotional state of the learner, as well as his/her need for achievement.
2. Parents/guardians could contribute towards the right type of anxiety, self-concept and need to learn through timely provision of their educational needs.
3. Government should continue to promote in a regular manner the professional teacher re-training programmes so as to up-date teachers knowledge, professional ethics and conduct in classroom interactions.

REFERENCES

- 1) Abugu, E. & Eze, A. (2008). Psychological Test and Assessment Calabar. Unical Press.
- 2) Asagwara, C. G. (2017). Effective classroom management: An analysis of behavior problems, sources and intervention strategies. Classical journal of Research in Education 2(1). 8-15.
- 3) Baner, R. A. and Sapona, E. (2011). Socio-psychology, New York: free press.
- 4) Barry, B. A. and Johnson L. U. (2005) Classroom management theory and skills. London: Macmillan.
- 5) Bassey, B. A. (2006). Pupils evaluation of teaching effectiveness of academic staff in University of Calabar. Unpublished seminar paper presentation. Unical
- 6) Bassey, S. W. (2008) School quality variables, classroom interaction pattern and student learning process in mathematics. Unpublished Ph. D thesis. Unical
- 7) Clark, C. M. (2006) Teachers thinking. Research on Teaching concepts, findings and implications. California, Mcc. Publication, 231-236.

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- 8) Clark, C. M. (2009). Teachers Thinking. Research on Teaching concepts, findings and implications. California, Mcc. Publications, 231-236.
- 9) Davis, A. (2005). Social class influence upon learning. Cambridge: Harvard University press.
- 10) Domike, G. C. (2007). Teacher-pupils interaction patterns and science achievement. Unpublished Ph. D thesis, Unical, Nigeria.
- 11) Ebong, S. M. (2008). Foundation studies in Education. Ibadan, University press.
- 12) Froyen, E. C. (2013). Classroom organization and Management. Owerri. Inter. University press.
- 13) Green, D. R. (2004). Teaching methods and performance. J-Educational publications. California.
- 14) Hall, C. S. (2007). Theories of personality. New York; John Wiley.
- 15) Heckhausen B. (2007). The anatomy of achievement motivation. New York: Academic press.
- 16) Helmholtz. G. I. (1934). Classical theory of perception: New Jersey: Pretice-Hall.
- 17) Hens, K. T. (2014). *Secondary teaching*. A personal approach, Peacebook publishers.
- 18) Isangedighi, A. J. (2007). Child psychology. Development and Education. Calabar. Eti-Nwa Associates.
- 19) Lingdgren, A. C. and Henry, C. (1976). *Educational psychology in the classroom*. New York, John Wiley and Sons.
- 20) Miller, R. and Rowan, B. (2006). Effects of organic management on pupils' achievement. *Educational research journal*. 43(2) 219-253.
- 21) Nwankiro. O. C. (2016). *Psychology of learning*. The human perspective. Enugu: Fedinco press.
- 22) Skinner, B. F. (1969). *About behaviourism*. New York, Vintage books.
- 23) Uba, A. (2015) theories of personality. Ibadan: claverianum press.
- 24) Ukpong, E. M. (2020). The psychology of human growth and development and learning. UNICAL press.
- 25) Ushie, J. U. (2010). Teacher's classroom behavior and pupils self-concept and achievement motivation in CRS, Nigeria. Unpublished Ph.D thesis. UNICAL.
- 26) Ushie, J. U. (2019). Innovation and Quality education in Nigeria. A lead paper presentation; COEASU South-South Annual Academic conference FCE, Obudu; June 19th – 23rd, 2019.
- 27) Ushie, J. U. (2021). Teachers' verbal behavior and students' self-concept and achievement motivation in CRS, Nigeria. *International Journal of innovative Research and Advanced studies*. 8(9) Sept., 2021.
- 28) Walter, J. (2016). Teaching biological systems. *Journal of Biological Education*, 22, 87.