

Influence of Teachers' Personality on the Academic Achievement of Chemistry Students in Ekiti State, Nigeria

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ABSTRACT: *This study investigated the influence of teacher personality on the academic achievement of chemistry students in Ekiti State, Nigeria. The research design used was survey design of the descriptive type of research. The sample size of two hundred (200) respondents was sampled for the study using simple random sampling technique to select public secondary schools across Ado, Ikole and Ikere Local Government Areas of Ekiti State. The respondents were drawn from fifty selected secondary schools with two chemistry teachers being selected from each school. The instrument for data collection for the study was a self-structured questionnaire. The split-half method of reliability was used to ascertain the reliability of the instrument using Spearman Brown's form Pearson Product Moment Correlation statistical analysis. A coefficient of 0.99 was obtained. Frequency counts and percentage were used to analyse the demographic characteristics of respondents to answer the research questions while the hypotheses were tested using inferential statistics of Correlation statistical analysis. The findings of the study showed that there was a significant positive correlation between teachers' attitude and academic achievement of chemistry students; there was a significant positive correlation between teachers' method and academic achievement of chemistry students; there was a significant positive correlation between teachers' experience and academic achievement of chemistry students; and there was significant positive correlation between teachers' classroom management and academic achievement of chemistry students. Based on the findings of the study, appropriate recommendations were made.*

Key Words: *influence, teacher's personality, academic performance, chemistry students*

Introduction

In the contemporary nations, there has been an increasing emphasis on industrial, scientific and technological advancements because of the obvious effects of science and technology on today's world and the future. It is observed that scientific methods influence all human interaction and has a fundamental role in all countries' national growth, economic and scientific development. Thus, science education has been regarded as being central for knowledge economy and intellectual development especially in emerging societies. Due to greater importance of science and technology, schools have been encouraging students to learn science related subjects (Taştan, Davoudi, Masalimova, Bersanov, Kurbanov, Boiarchuk & Pavlushin, 2018).

Specific subjects that are studied within all types of sciences in secondary schools are chemistry, biology and physics. Besides, it is thought that one of the greatest challenges of this century is to motivate students for maintaining their learning and success in science education. Ochonogor (2011) mentioned that students' performance in science classes in secondary school education was not found adequate and couldn't improve in the last decade. The students' performance and interest in science subjects have been related to several contextual, emotional and motivational factors, including volume of the subjects, workload, students' task orientation and personal abilities, instructional design and materials for effective teaching, teacher's efficacy and teaching skills, students' motivation, class size and teachers personality (Kwon, 2016; Say & Bag, 2017; Abbasi, Moeini, Shahriari, Ebrahimi, & Khoozani, 2018).

Academic achievement represents the understanding of the student about different concepts and skills developed in different subjects. In most of the countries, parents usually desire that their children show high level of academic achievement which sets a lot of burden on children, teachers, schools and in general the whole education system. Thus the whole education system revolves round the academic achievement of students so, the schools set a lot of time for helping students to achieve high grades. Academic achievement may be influenced by different factors like intelligence, study habits, and attitudes of students, socio economic status, motivation, opportunities, and different characteristics of their personality. Academic achievement is considered as a core standard to measure students' total potential and capabilities of learning. Hence academic achievement occupies a very vital place in our education as well as in the learning process. Achievement is the major outcome of education, the level to which a student, teacher has

accomplished their educational goals. According to Essay (2018), academic success is strongly influenced by individual differences in teachers' personality and attitude.

The role of personality in teaching and learning continues to intrigue researchers and practitioners. Previous research has provided empirical evidence in supporting the effectiveness of teacher personality, or the extent to which a teacher believes that he or she can influence the students' outcome, in educational contexts (Tschannen-Moran & Hoy, 2001).

Koko (2003) stated that one of the indicators of an effective and efficient teacher is the ability to channel learner's behaviour towards set educational goals and objectives. Thompson (2009) posited that such teacher must be an expert in his professional area as well as a good classroom manager. Thus, every chemistry teacher must exhibit acceptable leadership behaviour and mastery of the chosen subject area to command the recognition and acceptance of the students through effective instruction in the chemistry class (Thompson, 2009). Jacob & Herma (2009) revealed that, it is seen as an interpersonal influence exercise in situations and directed through the communication process towards the attainment of specific goal or goals.

Russell (2008) observed that the leader is characterized by a strong drive for responsibility and task completion, vigor and persistence in pursuit of goals, venture some and originality in problem solving, drive to exercise initiative in social situations, self-confidence and a sense of personal identity, willingness to accept consequences of decision and action, readiness to absorb interpersonal stress, willingness to tolerate frustration and delay, ability to influence other persons' behaviour, and capacity to structure social interaction systems to the purpose at hand. Lew (2009) concluded that, the above summary shows the influence of personality qualities or traits on chemistry students learning.

The personality of the teacher and monitoring efforts are prominent teacher characteristics central to interactional mechanisms in learning (Zhang & Watkins, 2007). A substantial amount of research has shown that readily observable teacher personality such as experience, education and contractual status, among others explain very little of the differences in teacher quality (Hanushek & Rivkin 2012). Most recent work in education and psychology has focused on what happens inside the classroom. In this approach, the quality of a teacher is measured by the quality of the interactions between teachers and chemistry students.

Therefore, it stands to reason that a teacher's personality and teaching style can have a profound impact on chemistry students' academic achievement, learning ability and general academic development. It is important to note however, that the influence of teacher behavioural traits on teacher's effectiveness and students' academic performances is not direct (Abbasi *et al.*, 2018). Rather it is moderated or mediated by their effects on the way in which teachers organize their classrooms and operate within them. So, effective teachers must possess the knowledge and skills needed to attain the goals, and must be able to use that knowledge and those skills appropriately if these goals are to be achieved (Taştan, *et al.*, 2018). The possession of knowledge and skills fall under the heading teacher competence while the use of knowledge and skills in the classroom is referred to as teacher performance /productivity. Thus there should be a link between teacher behavioural traits, teacher competence, and teacher productivity and students' academic performances.

It is believed that knowing what teacher personality traits in terms of teaching skills, attitude to work, being accommodative, mastery of chemistry concepts, teaching method of Chemistry and self-efficacy influence student achievement in Chemistry and may help school administrators and governmental officials to understand the importance of priority of hiring and assigning appropriate teachers to chemistry classes. Until now, stakeholders in chemistry education have not attributed the Chemistry students' achievement to the teachers' personality and the poor academic achievement has assumed a worrisome dimension in the Nigerian educational system. Academic achievement and teacher personality are so interdependent that it is impossible to understand learning and achievement without understanding the personality of the person facilitating the learning and academic achievement process.

Chemistry students who are highly motivated to learn by experience, skills and method of teaching of the teacher are more likely to achieve high grades as compared to those who do not have the teachers' positive personality. A teacher who is the custodian of knowledge and instructor should keep in mind that the type of personality he or she brings to the classroom has a high determinant on the condition of learning that he/she creates in the classroom and academic achievement that follows. Therefore, a teacher needs to have a repertoire of classroom strategies that will support chemistry students' motivation to learn and perform.

It is with this thrust that the researcher is stimulated to investigate the influence of teacher personality on the academic achievement of chemistry students in Ekiti State.

Concept of Personality: Few people understand the meaning of personality and its importance in the classroom. Some feel that personality is the kind of person one just happens to be, others have said that "it is being like others. Most important, many teachers do not realize the nature of their own shortcomings simply because they do not fully grasp the significance of the role of personality. Burnham (2017) stated that everyone knows what personality is, but no one can define it. Even though the definition is complex, most people will agree that personality is the extent to which one is able to interest or influence other people. This means that teacher personality is the sum total of the qualities of character, mind and body that make the teacher different from other teachers. It is a simple matter of human relations. It is the outward evidence of teacher inner qualities which determine his/her thoughts, feelings and actions in any given situation (Burnham, 2017).

Personality is not something that just happens. It is the definite result of cultivation as one goes on in life. Just as one must keep weeds and grass out of a flower bed, so one must eliminate undesirable elements in the realm of personality. Almost anyone can become a teacher, but it takes a special person to be a great teacher. To inspire not just a great student, but a great person, a teacher must rise above the crowd and make a lasting impression (Teach.com, 2017). A teacher cannot succeed if he cannot convey his knowledge to his students no matter how competent he is in the subject matter. Therefore, the teacher needs to have teaching skills (Erden, 2007).

For an effective teaching, a teacher should possess basic qualities such as expertise on the subject matter, motivating for learning, awareness of student differences, planning the teaching process, knowing and using teaching-learning strategies, designing learning environment, effective communication and objective evaluation. Teachers' personality is one of the characteristics of achieving excellence among teachers (Mohd Noor, Jasmi & Shukor, 2013). In other words, teachers themselves need to have a high personality first before attempting to develop students' personality and academic achievement (Tamuri Ismail & Jasmi, 2012). The personality of teachers plays a role in influencing the students' character development, attitude to learning, passion for academic excellence among others (Göncz, 2017). Other than forming students' personality, the teachers' personality can also impact the performance of schools, effectiveness of Teaching and Learning activities, creativity of students and motivation (Burns & Machin, 2013; Klassen & Tze, 2014; Lee & Kemple, 2014).

Concept of Teacher: A teacher is a person who helps others to acquire knowledge, competences or values. Informally the role of teacher may be taken on by anyone. Teaching is a highly complex activity (Caena, 2011). Factors that influence what is expected (or required) of teachers include history and tradition, social views about the purpose of education, accepted theories about learning among others. So the competences required by a teacher are affected by the different ways in which the role is understood around the world. Broadly, there seem to be four models: the teacher as a manager of instruction; the teacher as a caring person; the teacher as an expert learner; and the teacher as a cultural and civic person (Caena, 2011).

Teachers are enthusiastic about their topic and delight in sharing what they have learned. Sometimes it seems that they can go on forever about their specialty while denying the idea that they are an expert. Good teachers will tell you they are students, not teachers (Waldron, 2017). These two qualities are the primary and distinguishing characteristics of a teacher: Love of knowledge and a love of contributing to the development of others. A teacher wants to recognize the hard work children have done even though it is expected from some of them. A teacher believes there are no bad students, just challenging ones. A teacher will question and teach her students how to question (Walizer, 2014). At times the primary characteristics become contaminated by other drives and needs such as the need for status, authority, exhibitionism and any of many human needs that make us less than who we want to be. Excellent teachers learn to control these needs and to keep them out of the teaching arena as much as possible. Some teachers are better at this than others and they are better or worse teachers because of their abilities to control the extraneous (non-teaching) factors (Waldron, 2017).

Concept of Academic Achievement : Academic performance or academic achievement is the extent to which a student, teacher or institution has attained their short or long-term educational goals. Completion of educational benchmarks such as secondary school diplomas and bachelor's degrees represent academic achievement. Kaplan and Saccuzzo (2014) stated that academic achievement which is usually measured with test refers to what is actually done under existing circumstances that subsumes the process of accessing and utilizing the structure of knowledge and abilities and a host of affective, motivational and stylistic factors that influence the ultimate responses.

Academic achievement can be defined as learned proficiency in basic skills and content knowledge (McCoy, Twyman, Ketterlin-Geller & Tindal, 2019). Academic achievement is therefore a yard stick for ascertaining the capabilities of a student from which his overt, covert and inherent or unrevealed abilities

could be inferred. Kpolovie, Joe & Okoto (2014) asserted that academic achievement is generally used to determine how well an individual is able to assimilate, retain, recall and communicate his knowledge of what has been learnt.

Kpolovie *et al*(2014) opined that academic achievement is a yardstick for ascertaining the capabilities of a student from which his overt, covert and inherent or unrevealed abilities could be inferred. Academic achievement is generally used to determine how well an individual is able to assimilate, retain, recall and communicate his knowledge of what has been learnt. Academic achievement is the demonstrated performance of learning as opposed to the potential for learning (Kpolovie *et al.*, 2014). It is knowledge attained or skills developed in school subjects usually designated by scores in formal tests or examinations. Academic achievement refers to the observed and measured aspect of a student's mastery of skills and subject contents as measured with valid and reliable tests (Joe, Kpolovie, Osonwa & Iderima, 2014). Academic achievement is different from the academic potentials of an individual. It is the measured relatively permanent changes in an individual's behaviour due to experiences acquired. A student's academic achievement is usually measured by teacher-made tests or standardized tests (Kpolovie, 2014).

Academic achievement is in the context of learning and being able to express what has been learnt in a written or practical form without examination malpractice of any sort. Academic achievement is the demonstrated performance in learning as opposed to the potential for learning and is measured validly with SSCE by WAEC and NECO in Nigeria (Kpolovie, Olorube & Ekwebelem, 2011). The academic achievement of students may also dependent to an extent on many environmental factors which include education funding, the student, home, school administration, teacher, cultural and educational policy that can easily be studied experimentally and conclusive conclusions drawn (Kpolovie, 2012; Olorube and Kpolovie, 2012; Kpolovie & Obilor, 2013; Kpolovie, 2014).

Teacher Attitude and Academic Achievement in Chemistry: Attitude is internal belief that influences personal actions which are learned through one's experience. This has to do with a disposition to act or react in a particular way as the individual responds to a situation. Thus, the students' perceptions of the teachers' disposition could influence their attitude and thinking toward chemistry (Igwe, 2017). The teaching profession is constantly undergoing scrutiny and is the focus of continuous change. Teachers are regularly challenged in their teaching roles to review their beliefs, attitude and practices in order to implement imposed educational change while continuing to deliver quality education to their students.

The Federal Republic of Nigeria (2013) has recognized the importance of teachers in the educational system as those who transmit knowledge, ideas and interpret the content of the curriculum materials to students. They guide the learner through the teaching– learning process and also assess the level of students' achievement in their evaluation. The whole school system revolves round the teachers because they are the pivots of any educational setting (Igwe, 2017).

Yara (2009) asserted that teacher attitude can greatly influenced the students' attitude and academic achievement. A number of factors have been identified as related to students' attitude towards chemistry, such factors include teacher attitude, teaching methods, and social implication of chemistry and achievement (Adesoji, 2008). The (chemistry) teacher with positive attitude leads the students from the darkness of ignorance to the light of knowledge and understanding (of chemistry concepts) and helps them to keep the wave of civilization moving. Teachers therefore, have influence on the physical, intellectual, emotional, social, moral, cultural and spiritual development of the learners. Teachers equally serve as the main implementers of educational theories; indicating that what they do during the transfer of this knowledge is of great relevance to all involved in education. The chemistry teachers' behaviours and attitude to the learners therefore can affect learning either positively or negatively as their behaviours can either promote or hinder learning (Igwe, 2017).

Teacher's attitude and motivation play a pivotal role in the teaching and learning process leading to academic achievement of students in chemistry. They play a significant role in shaping the classroom environment which has an impact on a student's self-efficacy which in turn influences a student's behaviour. All of these factors which can be loosely categorized as environment, personal factors, and behaviour interact and play off each other in a cyclical way (Woolfolk, 2007). According to Kwale Education Authority [KEA] (2018), although chemistry teachers may have positive attitude, they are beset with problems that frustrate their efforts to teach effectively and efficiently. They play a significant role during the learning process and can directly or indirectly influence students' attitudes toward science which in consequence can influence students' achievement. Teachers are, invariably, role models whose behaviours are easily mimicked by students. What teachers like or dislike, appreciate or disapprove and how they feel about their learning or studies could have a significant effect on academic achievement. By extension, how teachers

teach, how they behave and how they interact with students can be more paramount than what they teach (KEA, 2018).

The way the chemistry teachers approach the learners and classroom activities can affect learning outcomes and productivity in especial way. Sequel to this, Igwe (2017) stated that somehow educators have forgotten the important connection between teachers' attitude and students' perception is valuable to the effective teaching of chemistry practice because they are autoerotic source, they personally experience the classroom first hand. It has to be noted that classroom climate is greatly influenced by teachers' attitude towards teaching and learning on the students for the development of their own interest and attitude.

The very behaviour that teachers exhibit in the course of teaching and learning, especially Chemistry can affect learn ability. This is because they either promote the desires students have in the subject or delimit them to hating and running away from the subject. In teaching generally, interpersonal relationship is essential, in the sense that it tells the students that their teachers understand, share and value them, their feelings and needs as individuals on a whole range of matters and experiences that cut-across academic, social, personal and emotional issues. It has been observed that certain personality characteristics influence students' evaluation of their teachers. Ogembo, Otanga & Yaki (2015) concluded that the poor performance of students in chemistry can be attributed to the teacher's negative perception of their learners' abilities.

Teachers are invariably role models whose behaviours are easily mimicked by students. What teachers feel about their learning or studies could have significant effect on the student academic achievement in chemistry. It is important to note that the various dispositions that chemistry teachers display at work betrayed their devotion. This has greatly affected the attitude of students and in particular, the learning of chemistry and hence their poor performance in the subject. Teachers' effective reactions to work are not as good as they should be in many of the schools yet, chemistry teachers are looked upon as instrument of social engineering, progress and change (Abudu & Gbadamosi, 2014).

Teachers' Method and Academic Achievement of Chemistry Students: Teaching methods are the means for helping students to study effectively. Teaching methods concern the tactics teachers use to meet teaching objectives, including instructional organization and techniques, subject matter, and the use of teaching tools and materials. Ameh and Dantani (2012) observed that methodology is very vital in any teaching-learning situation and the method adopted by the teacher may promote or hinder learning. It may sharpen mental activities which are the bases of social power or may discourage initiatives and curiosity thus making self-reliance and survival difficult.

Teaching method can best be defined as the type of principal and methods used for Instruction. There are many types of teaching methods, depending on what information or skill the teacher is trying to convey (Pooja, 2017). Class participation demonstration, recitation and memorization are some of the teaching methods being used. When a teacher deciding in their method, they need to be flexible and willing to adjust their style according to their student, student success in their academic achievement is based on effect of effective teaching methods. While the relationship between the compensation strategy and the academic success of the student was found to have a negative meaningful relation with academic success. For effective teaching to take place, a good method must be adopted by a teacher (Pooja, 2017).

Erdem (2012) emphasized four features of teaching methods. First, teaching strategies should improve a student's predisposition to learning by increasing the desire for studying and understanding new situation. Second teaching strategies should be structured to help learners rapidly capture the information distributed through the instruction, and develop learner's abilities in assimilating and using knowledge possessed. Third, teaching strategies should be sequenced in the most effective manner so that students can comprehend new knowledge by applying their prior experiences. Finally, teaching strategies should be designed to allow students to genuinely engage in their learning.

A teacher has many options when choosing a style, by which to teach. The teacher may write lesson plan of their own, borrow plans from other teacher, or search online, or within book for lesson plan. When deciding what method to use, a teacher needs to consider student background, knowledge, environment and learning goals. Teacher are aware that students' have different way of absorbing information and demonstrating their knowledge. Teacher use techniques which cater for multiple learning style to help students retain information and strength in understanding (Pooja, 2017).

The main purpose of teaching at any level is to bring out a significant change in the learner (Tebabal & Kahssay, 2011). Transferring knowledge requires teachers to use the appropriate method and pedagogy that best suits the learner and suit the objectives and desired outcomes. Most of the traditional methods were teacher-centered with no activity for the learners making them passive and therefore obtaining knowledge from the teacher without building their engagement level with the subject matter, the approach

is least practical, more theoretical and memorizing (Tebabal & Kahssay, 2011). Student-centered approaches which are more effective are more encouraged because they embrace the concept of discovery learning (Brindley, 2015).

Most teachers today apply the student-centered approach to promote interest, analytical research, critical thinking and enjoyment among students (Hesson & Shad, 2007). The effectiveness of teaching methods on students learning have consistently raised considerable interest on the thematic field of education research (Hightower, 2011). Most of the teaching methods today have embraced modern technology and this has brought tremendous changes in the field of learning. The poor academic performance by majority of the students in various subject areas is basically linked to the application of ineffective teaching methods by teachers to impact knowledge to learners and therefore teachers need to be conversant with numerous teaching strategies (Adunola, 2011).

Adunola (2011) indicated that in order to bring desirable changes in students, teaching methods used by educators should be best for the subject matter. Furthermore, Bharadwaj & Pal (2011) opined that teaching methods work effectively mainly if they suit learners' needs since every learner interprets and responds to questions in a unique way. As such, alignment of teaching methods with students' needs and preferred learning influence students' academic attainments. ICT's have been proven to play an important role in the teaching-learning process as it provides learners with the understanding, skills and knowledge necessary for scientific research, thus improving their standards of living (Munishi, 2018). They also enable learners to acquire problem-solving and decision-making skills, which provide ways of thinking and inquiry.

Ejedegebe (2016) investigated the influence of method of teaching on secondary school students academic achievements in chemistry. A total of seventy (70) students form the sample of the study. Two instruments, namely Chemistry Achievement Test (CAT) and Chemistry Attitude Questionnaire (CAQ) were used for data collection. The CAT was developed by the researcher and validated by experts in chemistry education and psychology. The reliability coefficient of CAT and CAQ were found to be $r=0.785$ and $r=0.82$ respectively. Analysis of data using t-test statistic and weight average revealed that the experimental group which was taught chemistry using inquiry teaching methods performed significantly better than the control group which was taught using the traditional lecture method. This showed that teaching of teacher has significant influence on the academic performance of chemistry students in secondary schools.

Omwirhiren & Ibrahim (2016) investigated the effect of teachers' instructional methods on students learning outcomes in selected senior secondary school in Kaduna, Nigeria. Two instructional methods (Demonstration and Lecture) were used on target population of one thousand nine hundred and eleven (1,911) senior secondary (S.S. II) Science Students. The sample consist of 100 Students randomly drawn from two co-educational senior secondary schools within Kaduna North LGA. The students were divided in to two groups: The experimental group and the control group of 50 students each based on a categorization test to ascertain the equivalence of the group. The pretest-posttest quasi-experimental control group design was adapted. The instrument developed and validated for data collection was Chemical Bonding Performance Test (CBPT). The data collected were analyzed using mean, standard deviation, t-test and ANOVA at 0.05 level of significance. The major findings from the study shows that there is significant difference in learning outcome on students exposed to demonstration and lecture strategies used to teach chemistry ($t_{cal} = 0.774 > t_{crit} = 0.443$ and $F_{cal} = 0.771 > F_{crit} = 0.710$ at $P < 0.05$) and there is no significant difference in the academic performance of both male and female students exposed to demonstration instruction in teaching chemistry ($t_{cal} = 0.177 < t_{crit} = 0.861$ and $F_{cal} = 0.728 < F_{crit} = 0.781$ at $P < 0.05$). These showed that teaching of teacher has significant influence on the academic performance of chemistry students in Secondary schools.

Teacher Experience and Academic Achievement:

Education is a continuous process in life. It is the process of training and developing the knowledge, skill, mind and character of people. It is the process by which the latent abilities of individuals are developed so that they may be useful to themselves and the society (Olaniyonu, 2018). Meaningful improvements in the quality of education that students receive are determined by the quality of teachers (Ewetan & Ewetan, 2015). The ability of a nation to exploit the potentials of its environment depends on the quality of Science and Technology education provided to the citizenry, and how well the citizenry have imbibed the culture of science and technology.

The issue of teacher as a factor that affects students' academic performance has received a lot of attention in the literature and findings have been mixed and inconclusive (Ewetan & Ewetan, 2015). Some literature revealed that a number of teacher variables which include years of teaching experience, level of educational attainment or academic qualifications, teacher development programmes, availability of

qualified teachers, teacher-student ratio, teacher attitude, degree of job satisfaction, affect students' learning outcomes (Daso, 2013). Other literatures also found that a number of teacher variables which include teacher years of experience, teacher academic attainment or qualifications, teacher-student ratio, and teacher development programmes had no significant influence on students' academic performance (Yara and Surumo, 2012; Ayodele & Ige, 2012; Ewetan & Ewetan, 2015).

Akpo (2012) found out that teacher educational qualifications, teaching experience, subject specialization, standards-based professional development, standard-based classroom activities, and classroom management beliefs are related to students' academic achievement science (chemistry). Abu & Fabunmi (2005) discovered that there is a significant and positive relationship between years of experience and learners' academic performance. Teacher experience refers to the number of years that a teacher has worked as a classroom teacher. Adeyemi (2008) examined teachers' teaching experience and students learning outcomes in the secondary schools in Benue State, Nigeria, using questionnaire. The result of the chi-square test, correlation analysis, and t-test statistic revealed that teachers' teaching experience was significantly related to students' learning outcomes.

Unanma, Abugu, Dike & Umeobike (2013) examined the relationship between Teacher's academic qualifications and academic achievement of Senior Secondary school Students in Chemistry and discovered that there is a positive relationship between the variables. Richardson (2008) indicated that a significant relationship does exist between teacher qualifications and student achievement. Specifically, the findings revealed that students with mathematics teachers who had five (5) or more years' experience performed better on the mathematics portion of the school subject. Richardson (2008) indicated that a significant relationship does exist between teacher experience and student achievement. This is due to the fact that these teachers are able to harmonies the minds and emotions of their students in class and this produces better academic achievement.

Van der Bergh & Roos, (2014) found out that low income students were more likely to benefit from instruction by a highly effective teacher than were their more advantaged peers. Papay & Kraft (2015) and Ladd & Sorenson (2017) indicated that teacher experience had a cumulative effect on student outcomes. Meanwhile, other studies have failed to identify consistent and statistically significant associations between student achievement and teacher experience (Blomeke, Olsen & Suhl, 2016; Gustaffsson & Nilson, 2016). In the first few years of a teacher's career, accruing more years of experience seems to be more strongly related to student achievement (Burroughs, Gardner, Lee, Guo, Touitou, Jansen & Schmidt, 2019).

Papay & Kraft (2015) confirmed previous research on the benefits experience can add to a novice teacher's career. They found that student outcomes increased most rapidly during their teachers' first few years of employment. They also found some further student gains due to additional years of teaching experience beyond the first five years. Pil & Leana (2009) added that acquiring teacher experience at the same grade level over a number of years, not just teacher experience in general (i.e. at multiple grades), was positively related to student achievement. Kosgei, Mise, Odera & Ayugi (2013) asserted that there is positive correlation between teachers experience and students' academic achievement.

Teacher Classroom Management Skills and Academic Achievement: Classroom management task consists of planning lessons, providing a conducive learning environment, teaching students and perhaps the most daunting task of all, is appropriately responding to students' behavioral problems. This is a great task that teachers face on daily basis which require them to work diligently and continuously to maintain a positive classroom atmosphere. The ability of teachers to organize their students is critical to achieving positive educational outcomes (Osakwe, 2014). Osakwe (2014) stated that classroom management and control include all the efforts teachers make in the following areas, organizing the students, co-coordinating their activities, monitoring their behaviours, ensuring effective learning process, providing instruction through interactive communication, getting feedbacks from learners, preparing and utilizing instructional materials in facilitating learning, maintaining discipline among learners, evaluating learning outcome, ensuring that the problems of above average learners are being solved, relating on one to one basis with learners, being mindful of their basic needs, providing basic information to learners, assisting learners in developing coping skills, providing an exemplary behavior for learners to imitate, and generating interest among learners as well as reinforcing their performance through motivational techniques.

Omoruyi & Aigbedion (2015) reported that the variables' that measures the classroom learning environment as perceived by students actually predicts their attitude towards schooling and academic performance. Failure to effectively manage the classroom can have an overall negative influence on the entire school, most especially in terms of sound academic performance of the school. Pederson-Seelye (2011) argued that effective classroom management procedures promote independent learning and success for all students in classrooms which are productive, orderly and pleasant. Verstrate (2014) asserted that

classroom procedures can be used to provide consistent momentum or transitions. Some of them include entering/leaving the classroom. The procedure involves students coming in quietly, take out the needed materials for the class, and place their bags and other items neatly under their desks. In starting the class, the students should be quiet before the teacher walks in.

Umoren (2010) stated that classroom management is broader than the notion of student control and discipline, it includes all the things teachers must do in the classroom to foster students' academic involvement and cooperation in classroom activities to create conducive learning environment.

Morse (2012) related that classroom management involves curtailing learner's disruptive behaviors such as fighting and noise making, close observation, arrangement of classroom learning materials, and response to students who suffer from poor sight (vision), poor hearing, poor reading, poor writing, poor spelling, shame, dullness, hyperactivity and poor study habits. Bassey (2012) stated that the wider view of classroom management shows increased engagement, reduction in inappropriate and disruptive behaviors, promotion of student responsibility for academic work, and improved academic performance of students. In effect, discipline, control and the consequences become authoritative or punitive approaches to classroom management. These have become much smaller part of the term classroom management. Thus, classroom management denotes much more than any of these words (Charlie, 2006). As put by Williams (2008), classroom management involves how the teacher works, how the class works, how the teacher and students work together and how teaching and learning takes place.

Hypotheses

The research hypotheses for the study were:

1. There is no significant relationship between teachers' attitude and academic achievement of chemistry students in Ekiti State.
2. There is no significant relationship between teachers' method and academic achievement of chemistry students in Ekiti State.
3. There is no significant relationship between teachers' experience and academic achievement of chemistry students in Ekiti State.
4. There is no significant relationship between teachers' classroom management skills and academic achievement of chemistry students in Ekiti State.

Methodology

The survey design of descriptive type of research was used for this study. This study was designed to be carried out in Ekiti State, Nigeria. Thus, the researcher aimed to make use of Ado, Ikole and Ikere Local Government Areas as the case study. The reason was that the researcher could not make use of all the sixteen (16) local governments in Ekiti State. Also, Ado-Ekiti being the capital city of Ekiti State; Ikole and Ikere Ekiti being two of the major cities and zonal areas in Ekiti State.

The population of the study comprised of all Chemistry teachers in Ekiti State. Most especially the chemistry teachers in Ado, Ikole and Ikere Local Government Areas. The estimated population of chemistry teachers in public and private secondary schools in Ado, Ikole and Ikere Local Government Areas is two hundred and sixty (260) and this include both male and female teachers.

The sample size of two hundred(200) chemistry teachers were sampled and selected for this study. A simple random sampling technique was used in selecting twelve (13) public and twenty eight (28) private secondary schools in Ado Local Government, ten (10) public and sixteen (16) private secondary schools in Ikole Local Government and ten (10) public and twenty three(23) private secondary schools in Ikere Local Government. Then, purposive sampling technique was used to select two (2) chemistry teachers from each of the selected secondary schools.

The instrument that was used for this study was a self-structured questionnaire. And this consisted of two sections. Section A consisted of items which were designed at eliciting responses on the respondents' demographic data. Section B contained items of statement purposely designed to collect data for analysis from selected chemistry teachers. The instrument adopted Likert response format of SA- Strongly Agree, A- Agree, SD- Strongly Disagree, D- Disagree for response of the respondents.

To ensure validity of the instrument, the draft of the questionnaire was given to two (2) experts in the chemistry education department for face and content validity. The corrections that was made by the expert were noted and corrected version of the instrument was submitted to the project supervisor for final correction and approval before final copies were produced.

In order to determine the reliability of the instrument, twenty (20) questionnaires were administered on twenty (20) science teachers from ten (10) secondary schools (five (5) public and five (5) private schools) in Ikere local government area of Ekiti State. Split half reliability was adopted and the response of the respondents was subjected to Pearson Product Moment Correlation statistical analysis. The reliability index obtained was 0.99.

The questionnaire was personally administered to two hundred (200) chemistry teachers with the help of two (2) self-trained research assistants and the completed questionnaires were collected on the spot.

For analysis of data, the researcher used descriptive statistical tools of frequency counts and percentage to analyse the demographic data of respondents, percentage was used to answer the research questions while inferential statistics of Pearson Correlation analysis was used to test the hypotheses at 0.05 alpha level of significance. The analysis was done through computerized package of SPSS software version 20.

Test of Hypotheses

Hypothesis 1: There is no significant relationship between teachers’ attitude and academic achievement of chemistry students in Ekiti State.

Table 10: Correlation analysis of students’ response

		Teachers’ attitude	Academic achievement
Spearman’s rho Teachers’ attitude	Correlation Coefficient	1.000	0.612*
	Sig. (2-tailed)		0.024
	N	200	200
Academic achievement	Correlation Coefficient	0.612*	1.000
	Sig. (2-tailed)	0.024	
	N	200	200

*= significant at the 0.05 level.

The result in table 10 shows the correlation between teachers’ attitude and academic achievement of chemistry students. The table indicates that there was a significant positive correlation between teachers’ attitude and academic achievement of chemistry students (r = 0.612, N = 200, p < 0.05). Hence the null hypothesis was not upheld.

Hypothesis 2: There is no significant relationship between teachers’ method and academic achievement of chemistry students in Ekiti state.

Table 11: Correlation analysis of students’ response

		Teachers’ method	Academic achievement
Spearman’s rho Teachers’ method	Correlation Coefficient	1.000	0.736*
	Sig. (2-tailed)		0.022
	N	200	200
Academic achievement	Correlation Coefficient	0.736*	1.000
	Sig. (2-tailed)	0.022	
	N	200	200

*= significant at the 0.05 level.

The result in table 11 shows the correlation between teachers’ method and academic achievement of chemistry students. The table indicates that there was a significant positive correlation between teachers’ method and academic achievement of chemistry students (r = 0.736, N = 200, p < 0.05). Hence the null hypothesis was not upheld.

Hypothesis 3: There is no significant relationship between teachers’ experience and academic achievement of chemistry students in Ekiti state.

Table 12: Correlation analysis of students’ response

		Teachers’ experience	Academic achievement
Spearman’s rho Teachers’ experience	Correlation Coefficient	1.000	0.621*
	Sig. (2-tailed)		0.041
	N	200	200
Academic achievement	Correlation Coefficient	0.621*	1.000
	Sig. (2-tailed)	0.041	
	N	200	200

*= significant at the 0.05 level.

The result in table 12 shows the correlation between teachers' experience and academic achievement of chemistry students. The table indicates that there was a significant positive correlation between teachers' experience and academic achievement of chemistry students ($r = 0.621$, $N = 200$, $p < 0.05$). Hence the null hypothesis was not upheld.

Hypothesis 4: There is no significant relationship between teachers' classroom management and academic achievement of chemistry students in Ekiti state.

Table 13: Correlation analysis of students' response

		Classroom management	Academic achievement
Spearman's rho Classroom management	Correlation Coefficient Sig. (2-tailed) N	1.000 200	0.592* 0.036 200
Academic Achievement	Correlation Coefficient Sig. (2-tailed) N	0.592* 0.036 200	1.000 200

*= significant at the 0.05 level.

The result in Table 13 shows the correlation between teachers' classroom management and academic achievement of chemistry students. The table indicates that there was a significant positive correlation between teachers' classroom management and academic achievement of chemistry students ($r = 0.592$, $N = 200$, $p < 0.05$). Hence the null hypothesis was not upheld.

Discussion of Findings

The finding of hypothesis 1 revealed that there was a significant positive correlation between teachers' attitude and academic achievement of chemistry students. The finding agreed with the finding of Igwe (2017) that the chemistry teachers' behaviours and attitude to the learners can affect learning either positively or negatively as their behaviours can either promote or hinder learning. Teacher's attitude and motivation play a pivotal role in the teaching and learning process leading to academic achievement of students in chemistry. They play a significant role in shaping the classroom environment which has an impact on a student's self-efficacy which in turn influences a student's behaviour.

Also, the finding further agreed with Ogembo *et al*(2015) that the poor performance of students in chemistry can be attributed to the teacher's negative perception of their learners' abilities. Teachers are invariably role models whose behaviours are easily mimicked by students. What teachers feel about their students learning or studies could have significant effect on the student academic achievement in chemistry. It is important to note that the various dispositions that chemistry teachers display at work betrayed their devotion. Just as Abudu & Gbadamosi (2014) also stated that teachers' effective reactions to work are not as good as they should be in many of the schools yet, chemistry teachers are looked upon as instrument of social engineering, progress and change. This has greatly affected the attitude of students and in particular, the learning of chemistry and hence their poor performance in the subject.

However, the findings from hypothesis 2 revealed that there was a significant positive correlation between teachers' teaching method and academic achievement of chemistry students. The findings was in line with the observation of Ameh & Dantani (2012) that methodology is very vital in any teaching-learning situation and the method adopted by the teacher may promote or hinder learning. A teacher has many options when choosing a style, by which to teach. The teacher may write lesson plan of their own, borrow plans from other teacher, or search online, or within book for lesson plan. When deciding on what method to use, a teacher needs to consider student background, knowledge, environment and learning goals. Teachers are aware that students' have different way of absorbing information and of demonstrating their knowledge. Teacher should use techniques which can cater for multiple learning style to help students retain information and strength in understanding

The findings further concurred with Ejedegbe (2016) that teaching method of teacher has significant influence on the academic performance of chemistry students in secondary schools. The poor academic performance by majority of the students in various subject areas and chemistry inclusive is basically linked to the application of ineffective teaching methods by teachers to impact knowledge to learners and therefore teachers need to be conversant with numerous teaching strategies. This was also in line with Bharadwaj and Pal (2011) that teaching methods work effectively mainly if they suit learners' needs since every learner interprets and responds to questions in a unique way. As such, alignment of teaching methods with students' needs and preferred learning influence students' academic attainments.

Furthermore, the findings from hypothesis 3 indicated that there was a significant positive correlation between teachers' experience and academic achievement of chemistry students. This agreed with the finding of Akpo (2012) that teacher teaching experience is related to students' academic achievement in science (chemistry). Teacher experience refers to the number of years that a teacher has worked as a classroom teacher. Researcher have established strong evidence and positive relationship between years of experience and learners' academic performance.

Also, the finding further buttressed the finding of Unanma *et al*(2013) that there is a positive relationship between the variables. Students with teachers who had five (5) or more years' experience performed better in school subject. This is due to the fact that these teachers are able to harmonies the minds and emotions of their students in class and this produces better academic achievement. Also, Ladd and Sorenson (2017) indicated that teacher experience had a cumulative effect on student outcomes. Meanwhile, other studies have failed to identify consistent and statistically significant associations between student achievement and teacher experience. Student outcomes increased most rapidly during their teachers' first few years of employment and student gains due to additional years of teaching experience beyond the first five years.

Finally, the findings from hypothesis 4 indicated that there was a significant positive correlation between teachers' classroom management and academic achievement of chemistry students. This was in line with Pederson-Seelye (2011) that effective classroom management procedures promote independent learning and success for all students in classrooms which are productive, orderly and pleasant. Classroom management task consists of planning lessons, providing a conducive learning environment, teaching students and perhaps the most daunting task of all, is appropriately responding to students' behavioral problems. This is a great task that teachers face on daily basis which require them to work diligently and continuously to maintain a positive classroom atmosphere. The ability of teachers to organize their students is critical to achieving positive educational outcomes.

The findings also concurred with Ekere (2006) that poorly managed classrooms are usually characterized by disruptive behaviours such as sleeping, late coming, noise making, miscopying of notes, eating, calling of nicknames, verbal or physical threat to fellow students or the teacher. These disruptive behaviours disorganize learning processes and hamper academic performance of students. In effect, discipline, control and the consequences become authoritative or punitive approaches to classroom management. These have become much smaller part of the term classroom management. Hence, Abel (2011) stated that classroom management thus requires specific skills such as planning organizing, as well as an aptitude for teamwork. It requires a great deal of commitment, initiatives, teachers' willingness to adjust, creative thinking and actions.

Conclusion

As regard the findings of the study, the researcher concluded that: teacher attitude positively correlated academic achievement of chemistry students. Properly selected teaching method with good instructional aids positively correlated with academic achievement of chemistry students. Teacher experience was essential in enhancing students learning and have positive correlation with the academic achievement of chemistry students. Teacher classroom management skills and academic achievement of chemistry students are positively correlated.

Recommendations

Based on the results of findings of the study, it was recommended that:

1. Students having contentiousness personality trait like study habit can produce better result in Chemistry, therefore, chemistry teachers should develop good and positive attitude towards teaching of chemistry to optimize students' achievement in Chemistry.
2. Traditional methods of teaching chemistry which are not learner-centered do not yield any good results and therefore integration of ICT in the teaching and learning process aims at helping learners to improve their academic achievement should be embraced.
3. There is need for training teachers on the new methods of teaching for effectiveness of the content delivery, this will help the students to improve in performance.
4. To foster improved academic achievement of secondary school students in chemistry, government should give priority to the employment of professional and qualified teachers and ensure that such teachers are retained to enable them acquire experience on the job.

5. To maintain professional competence and teaching quality standards the issues of training and retraining of chemistry teachers at secondary school level should be given priority in the scheme of things by all the stakeholders in the business of science education in Nigeria.
6. Teachers should always pay attention to their classroom management skills so that it affects students' academic performance positively.
7. Principals should ensure that teachers acquire effective classroom management skills that will not create fear in the classroom and will not weaken students' academic performance.

References

1. Abbasi, S., Moeini, M., Shahriari, M., Ebrahimi, M. & Khoozani, E. K. (2018). Designing and manufacturing of educational multimedia software for preventing coronary artery disease and its effects on modifying the risk factors in patients with coronary artery disease. *Electronic Journal of General Medicine*, 15(3), 22.
2. Abel, E. O. (2011). Teachers' Characteristics and their Attitudes towards Classroom Management. Calabar: Nigerian Rapid Educational Publishers, Nigeria.
3. Abu, P. B. & Fabunmi, M. (2005). The relationship among teacher variables and adult learners' academic performance. *International Journal of African American Studies*, IV (1), 12-20.
4. Abudu, K. A. & Gbadamosi, M. R. (2014). Relationship between teacher's attitude and student's academic achievement in senior secondary school chemistry. A case study of Ijebu-Ode and Odogbolu Local Government Area of Ogun State, *Wudpecker Journal of Educational Research*, 3(3), 035 – 043.
5. Adesoji, F. A. (2008). Managing Students Attitude towards Science through Problem Solving Instructional Strategies. *Anthropologist*, 10(1), 22-24.
6. Adeyemi, T. O. (2008). Teachers' teaching experience and students' learning outcomes in Secondary schools in Ondo State, Nigeria. *Asian Journal of Information Technology*, 7(5), 201- 209.
7. Adunola, O. (2011). The Impact of Teachers' Teaching Methods on the Academic Performance of Primary School Pupils in Ijebu-Ode Local cut Area of Ogun State, Ego Booster Books, Ogun State, Nigeria.
8. Akpo, S.E. (2012). The impact of teacher-related variables on students' junior secondary Certificate mathematics results in Namibia, Ph.D Thesis, University of South Africa, School of Education.
9. Ameh, P. O. & Dantani, Y.S.(2012). Effects of Lecture and Demonstration Methods on the Academic Achievement of Students in Chemistry in Nassarawa Local Government Area of Kano State. *International Journal of Modern Social Sciences* 1(1), 29-37.
10. Ayodele, J. B. and Ige, M. A. (2012). Teachers' utilization as correlate of students' academic performance in senior secondary schools in Ondo State, Nigeria. *European Journal of Educational Studies*, 4(2), 281-287.
11. Basse, B.A.(2012). A Wider View of Classroom Management. Uyo: Ekong Publishing House, Nigeria.
12. Bharadwaj, B. K. & Pal, S. (2011). Mining Educational Data to Analyse Students' Performance, *International Journal of Advanced Computer Science and Applications*, 2(6), 63-69.
13. Blomeke, S., Olsen, R. & Suhli, U. (2016). Relation of student achievement to the quality of their teachers and instructional quality. In T. Nilson and J. Gustafsson (Eds.), *Teacher quality, instructional quality and student outcomes*. IEA Research for Education, 2, 21–50. Cham, Switzerland: Springer. Retrieved from https://link.springer.com/chapter/10.1007/978-3-319-41252-8_2.
14. Brindley, S. (2015). Teacher perspectives on integrating ICT into Kenyan system of education, A paper presented in the 1st Regional Conference on e-Learning. Increased access to education, diversity in applications and management.
15. Burnham, W. H. (2017). The Personality of the Teacher, Retrieved from <http://truthmagazine.com/archives/volume15/TM015677.html>.
16. Burns, R. A. & Machin, M. A. (2013). Employee and workplace well-being: A Multi-level Analysis of teacher personality and organizational climate in Norwegian teacher from rural, urban and city schools. *Scandinavian Journal of Educational Research*, 57(3), 309-324.
17. Burroughs N., Gardner, J., Lee, Y., Guo, S., Touitou, I., Jansen, K. & Schmidt, W. (2019). A Review of the Literature on Teacher Effectiveness and Student Outcomes. In: *Teaching for Excellence and Equity*. IEA Research for Education (A Series of In-depth Analyses Based on Data of the International Association for the Evaluation of Educational Achievement (IEA)), 6. Springer, Cham.
18. Caena, F. (2011). Literature review: Teachers' core competences: requirements and development, Retrieved online from <http://ec.europa.eu/dgs/education> on 23/05/2011.
19. Charlie, M.U.(2006). *Discipline and Management in the Classroom, Theory and practice*, Kaduna, Joyce Graphic Printer and Publishers Company, Nigeria.
20. Daso, P. O. (2013). Teacher variables and senior secondary students' achievement in Mathematics in Rivers State, Nigeria. *European Scientific Journal*, 9 (10), 271-289.
21. Effiong, U. A. (2017). *Dealing with Disruptive Behaviours in the Classroom*. Calabar: Hilcop Printing Press, Nigeria. Retrieved online from <https://files.eric.ed.gov/fulltext/EJ1149167.pdf>.
22. Ejedegbe, O. (2016). Influence of Method of Teaching on Secondary School Students Academic Achievements in Chemistry, *International Journal of Trend in Research and Development*, 3(3), 67-73.

23. Ekere, O. S. (2019). Concept of Disruptive Behaviour Among Students in Public Secondary Schools. Uyo: Ekpeyong Publishers, Nigeria. Retrieved online from <https://seahipaj.org/journals-ci/sept-2019/IJIER/full/IJIER-S-1-2019.pdf>.
24. Erdem, E. (2012). Examination of the Effects of Project based Learning Approach on Students Attitudes towards Chemistry and Test Anxiety, *World Applied Sciences Journal*, 17(6), 764-745.
25. Erden, M. (2007). Öğretmenlik meslegine giris (Introduction to teaching profession), Ankara: Arkadas Yayınevi.
26. Essays, U. K. (2018). The Personality and Academic Achievement. Retrieved from <https://www.ukessays.com/essays/education/the-personality-and-academic-achievement-education-essay.php?vref=1>.
27. Ewetan, T. O. & Ewetan, O. O. (2015). Teachers' Teaching Experience and Academic Performance in Mathematics and English Language in Public Secondary Schools in Ogun State, Nigeria, *International Journal of Humanities Social Sciences and Education (IJHSSE)*, 2(2), 123-134.
28. Federal Republic of Nigeria, (2013). National policy on education. Lagos: NERDC.
29. Göncz, L. (2017). Teacher personality: A review of psychological research and guidelines for a more comprehensive theory in educational psychology. *Open Review of Educational Research*, 4(1), 75-95.
30. Gustafsson, J. & Nilson, T. (2016). The impact of school climate and teacher quality on mathematics achievement: A difference-in-differences approach. In T. Nilson and J. Gustafsson (Eds.), *Teacher quality, instructional quality and student outcomes*, IEA Research for Education, 2, 81–95. Cham, Switzerland: Springer. Retrieved from https://link.springer.com/chapter/10.1007/978-3-319-41252-8_4.
31. Hanushek, E. & Rivkin, S. (2012). The Distribution of Teacher Quality and Implications for Policy, *Annual Review of Economics*, 4, 131-157.
32. Hesson, M. & Shad, K. F. (2007). A student-centered learning model, *American Journal of Applied Sciences*, 628-636.
33. Hightower, A. M. (2011). Improving student learning by supporting quality teaching: Key issues, effective strategies, Editorial Projects in Education.
34. Igwe, I. O. (2017). Students' Perception of Chemistry Teachers' Characteristics of Interest, Attitude and Subject Mastery in the Teaching of Chemistry in Senior Secondary Schools, *Journal of Chemistry: Education Research and Practice*, 1(1), 1-8.
35. Jacob, A. A. and Herma, J. L. (2009). Psychoanalysis. Microsoft Encarta (DVD), Redmond, W. A: Microsoft Corporation.
36. Joe, A. I., Kpolovie, P. J., Osonwa, K. E. & Iderima, C. E. (2014). Modes of admission and academic performance in Nigerian universities. *Merit Research Journals*. Retrieved October 6, 2014 from <http://meritresearchjournals.org/er/content/2014/September/Kpolovie%20et%20al.pdf>.
37. Kaplan R. M. & Saccuzzo, D. P. (2014). *Psychological testing principles, applications and issues*. United States: Thomson Wadsworth. Retrieved online from <https://www.arcjournals.org/pdfs/ijhsse/v1-i11/10.pdf>.
38. Klassen, R. M. & Tze, V. M. C. (2014). Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational Research Review*, 12, 59-76. Available: <http://doi.org/10.1016/j.edurev.2014.06.001>.
39. Koko, M. N. (2003). *Organizational Behaviour: concept and dimension*. Bengray Publishing Company. Port Harcourt
40. Kosqei, A., Mise, J. K., Odera, O. and Ayugi, M. E. (2013). Influence of teacher characteristics on students' academic achievement among secondary schools. *Journal of Education and Practice*, 4(3), 76 -82.
41. Kpolovie, P. J. (2012). *Education reforms without evaluation designs: Nigeria at risk*. Owerri: Springfield Publishers Ltd.
42. Kpolovie, P. J. (2014). *Test, measurement and evaluation in education*. Second Edition. Owerri: Springfield Publishers Ltd.
43. Kpolovie, P. J. & Obilor, I. E. (2013). Adequacy-inadequacy: Education funding in Nigeria. *Universal Journal of Education and General Studies*, 2(8), 239-254. <http://www.universalresearchjournals>.
44. Kpolovie, P. J., Joe, A. I. & Okoto, T. (2014). Academic Achievement Prediction: Role of Interest in Learning and Attitude towards School, *International Journal of Humanities Social Sciences and Education (IJHSSE)*, 1(11), 73-100.
45. Kpolovie, P. J., Olorube, N. P. & Ekwebelem, A. B. I. (2011). Appraising the Performance of Secondary School Students on the WAEC and NECO SSCE from 2004 to 2006. *International Journal of Scientific Research in Education (IJSRE)*, 4(2), 105-114. Retrieved from www.ijrsre.com/Vol.%204_2-Kpolovie%20et%20al.pdf.
46. Kwale Education Authority, (2018). Gender issues in mathematics and science education. A paper presented in cycle 1 of Kwale district, Retrieved online from <https://www.longdom.org/articles/students-and-teachers-attitude-and-performance-in-chemistry-in-secondary-schools-in-kwale-county-kenya.pdf>.
47. Kwon, H. (2016). Effect of Middle School Students' Motivation to Learn Technology on Their Attitudes toward Engineering. *Eurasia Journal of Mathematics, Science and Technology Education*, 12(9), 2281-2294.
48. Ladd, H. F. & Sorenson, L. C. (2017). Returns to teacher experience: Student achievement and motivation in middle school. *Education Finance and Policy*, 12(2), 241–279. Retrieved from https://www.mitpressjournals.org/doi/10.1162/EDFP_a_00194.

49. Lee, I. R. and Kemple, K. (2014). Pre-service teachers' personality traits and engagement in creative activities as predictors of their support for children's creativity. *Creativity Research Journal*, 26(1), 82-94.
50. Lew, W. J. F. (2009). *Teaching and Teacher Personality*, Retrieve 2nd January.
51. McCoy, J. D., Twyman, T., Ketterlin-Geller, L. R. and Tindal, G. (2019). *Academic Achievement*, In: *Encyclopedia of School Psychology*, Retrieved online from <https://sk.sagepub.com/reference/schoolpsychology/n3.xml>.
52. Mohd Noor, A. F., Jasmi, K. A. & Shukor, A. K. (2013). Kecemerlangan pensyarah Pendidikan Islam Politeknik berdasarkan kriteria keperibadian perspektif Sarjana Islam. In *Prosiding Seminar Pertama Pendidikan dan Penyelidikan Islam [SePPIM'13]*. Universiti Teknologi Malaysia. Available: <http://eprints.utm.my/38153/1/Cover%26Paper.pdf>.
53. Morse, C. J. (2012). Debriefing after simulated patient experiences. In: Wilson, and L. Rockstraw (Eds). *Human simulation for nursing and health professions*, 58-68. New York. NY: Springer.
54. Munishi, G. K. (2018). *Comparative education: Social services provision in Tanzania*, London, Currey, 448-478. Retrieved online from <http://iosrjournals.org/iosr-jrme/papers/Vol-8%20Issue-5/Version-5/J0805055963.pdf>.
55. Narinder K. (2002). Hubungan di antara Dimensi Personaliti, Konsep Kendiri dengan Pengaruh Keluarga di Tanah Rancangan Felda. Universiti Teknologi Malaysia: Tesis Sarjana.
56. Ogembo, J. O., Otanga, H. & Yaki, R. N. (2015). Students' and Teachers' Attitude and Performance in Chemistry in Secondary Schools in Kwale County, Kenya. *Global Journal of Interdisciplinary Social Science*, 4(3), 39-43.
57. Olaniyonu, S. O. A. (2018). *Fundamentals of educational planning*. Mushin, Lagos: MICODEX Nigeria Ltd. Retrieved online from m.covenantuniversity.edu.ng%2Fcontent%2Fdownload%2F34496%2F237227%2Ffile%2FTeachers%2Bpaper.pdfandusg=AOvVaw17m9VMbv2x7qKx64HUK-3N.
58. Ololube, N. P. & Kpolovie, P. J. (2012). Educational management in developing economies: Cases in school effectiveness and quality improvement. Retrieved online from <http://www.amazon.com/Educational-Management-Developing-Economies-Effectiveness/dp/3846589314>.
59. Omoruyi, K. I. and Aigbedion, I. M. (2015). The Impact of Classroom Management on Students' Academic Performance in Selected Junior Secondary Schools in Municipal Area Council, Abuja, *International Journal of Education and Research*, 3(9), 141-154.
60. Omwirhiren, E. M. & Ibrahim, K. U. (2016). The Effects of Two Teachers' Instructional Methods on Students' Learning Outcomes in Chemistry in Selected Senior Secondary School in Kaduna Metropolis, Nigeria, *Journal of Education and Practice*, 7(15), 1-9.
61. Osakwe, R. N. (2014). Classroom Management: A Tool for Achieving Quality Secondary School Education in Nigeria, *International Journal of Education*, 6(2), 58-68.
62. Papay, J. and Kraft, M. (2015). Productivity returns to experience in the teacher labor market: Methodological challenges and new evidence on long-term career improvement. *Journal of Public Economics*, 130, 105-119.
63. Pederson-Seelye, V.A. (2011). Effective classroom management procedures. Retrieved from file:///F:/Newfolder(3)/284.short.htm.
64. Pil, F. K. and Leana, C. (2009). Applying organizational research to public school reform: The effects of teacher human and social capital on student performance. *Academy of Management Journal*, 52(6), 1101-1124.
65. Pooja, G. (2017). Study the effect of teaching method on the academic achievement of school going children of Semi-urban Area, Schools of Lucknow city, *International Journal of Home Science*, 3(2), 447-453.
66. Richardson, A.R.. (2008). An Examination of Teacher Qualifications and Students Achievement in Mathematics. Masters Dissertation, Unpublished Alabama Auburn University.
67. Russell, J. F. (2008). Enthusiastic Educational Leadership, *Florida Journal of Educational Administration and Policy*, 1(2), 79-80.
68. Rykman, R. M. (2009). *Theories of Personality*. 9th ed. Wadsworth Publication Company.
69. Salina, B. R. (2014). Influence of Personality on Academic Achievement and Performance of Teaching Practices Students in TVET, *Developing Country Studies*, 4(16), 60-65.
70. Say, S. and Bag, H. (2017). The Evaluation of the Effect of a Newly Designed Computer Game on 7th Grade Students' Motivation towards Science and Aggression. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(8), 5379-5393.
71. Tamuri, A. H., Ismail, M. F. and Jasmi, K. A. (2012). Komponen asas untuk latihan guru Pendidikan Islam. *Global Journal Al-Thaqafah*, 2(2), 53-63.
72. Taştan, S. C., Davoudi, S. M., Masalimova, A. R., Bersanov, A. S., Kurbanov, R. A., Boiarchuk, A. V. & Pavlushin, A. A. (2018). Impacts of teacher's efficacy and motivation on student's academic achievement in science education among secondary and high school students, *EURASIA Journal of Mathematics, Science and Technology Education*, 14(6), 2353-2366.
73. Teach.com, (2017). *Motivating Students, Teach make a difference*, Retrieved on May 25 from <https://teach.com/what/teachers-change-lives/teachers>.
74. Tebabal, A. & Kahssay, G. (2011). The effects of student-centered approach in improving students' graphical interpretation skills and conceptual understanding of kinematical motion. *Latin America Journal of Physical Education*, 5(2), 374-381.

75. Thompson, B. (2009). Teacher leaders: Boosting teacher effectiveness and student achievement, *The Progress of Educational Reform*, 11 (6).
76. Tschannen-Moran, M. & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783–805.
77. Umoren, I.P. (2010). *The concept of Classroom Management in Modern Society*. Uyo: MGO Nigerian publishers.
78. Unanma, A. O., Abugu, H. O., Dike, R. C. and Umeobike, U. C. (2013). Relationship between teachers educational qualifications and students achievement in chemistry: A case study of Owerri West LGA. *Journal of Research and Method in Education*. 4(1) 05-10
79. Van der Bergh, L. & Roos, A. (2014). Improving teacher feedback during active learning effects of a professional development program. *American Education Research Journal*. 5(4): 722-809
80. Verstrate, T. (2014). Keys to effective teaching. Retrieved from [file:///F:/evaluation 2/Insight-Into classroom-management-plans-Imp. On 8/8/2014](file:///F:/evaluation%20/Insight-Into%20classroom-management-plans-Imp.%20On%208/8/2014).
81. Waldron, J. (2017). Who is a Teacher? Retrieved on 7/5/2017 from <http://billiards.colostate.edu>, Retrieved on May 23.
82. Walizer, N. (2014). What Is a Teacher? Retrieved on 7/5/2017 from [https://www.huffpost.com/entry/ what-is-a-teacher_b_5545882](https://www.huffpost.com/entry/what-is-a-teacher_b_5545882).
83. Wang, E. (2009). *Classroom Management: The Key to Academic Performance*, Jos: Competent publishing company, Nigeria.
84. Williams, W.O. (2008). *Educational Management*, Ibadan: Pandac Publications, Nigeria.
85. Woolfolk, A. (2007). *Educational psychology*, Boston: Pearson.
86. Yara, P. O. (2009). Students' attitude towards mathematics and academic achievement in some selected secondary schools in south-western Nigeria. *European Journal of Science Research*, 36(3), 336-341.
87. Yara, P. O. & Surumo, T. N. (2012). Performance indicators of secondary school mathematics in Nyimira south district of Kenya. *British Journal of Arts and Social Sciences*, 8(2), 230-240.
88. Zhang, Q. & Watkins, D. (2007). Conception of a good tertiary EFL teacher in China. *TESOL Quarterly*. 41(4), 781-790.