RELATIONSHIP BETWEEN SOCIAL INTELLIGENCE AND CLASSROOM MANAGEMENT SKILLS AMONG ELECTRICAL AND ELECTRONIC TRADE TEACHERS IN FEDERAL CAPITAL TERRITORY, NIGER AND BENUE STATES

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Abstract
This study identified the relationship between social intelligence and classroom management skills among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria. Two research questions and two hypothesis guided the study. A correlational research design was adopted for the study. The study was conducted in Federal Capital Territory, Niger and Benue States, Nigeria. A total of 62 electrical and electronic trade teachers constituted a population for the study. Tromso Social Intelligence Scale (TSIS) and Classroom Management Questionnaire (CMQ) were the two-instrument used for data collection for the study. TSIS was adopted for the study while CMQ was validated by three experts from Department of Industrial and Technology Education. The reliability coefficient of CMQ was found to be 0.746 using Cronbach Alpha. A Scatter plot was used to analyses the relationship. The mean and standard deviation were used to answer research questions while Product Moment Correlation Statistics and t-test were used to test the hypotheses at 0.05 level of significance. The findings of the study revealed that there was a significant relationship between social intelligence and classroom management in time management among electrical and electronic trade teachers in Federal Capital Territory Niger and Benue States, Nigeria with p-value of 0.025 which is less than the 0.05 level of significance. However, the findings also further revealed that there was no significant relationship between social intelligence and student behaviour management practices among electrical and electronic trade teachers in Federal Capital Territory Niger and Benue States, Nigeria with p-value 0.102 which is greater than 0.05 level of significance. The researcher recommended that both government and Technical Colleges Management should advocate the development of social intelligence skills of trade teachers. It was also recommended that electrical and electronic trade teachers should pay more attention to classroom management practices as they have impact on their social intelligence.

Keywords: Relationship, Social Intelligence, Classroom Management Skills, Electrical and Electronic Trade Teachers.

Introduction
Technical colleges in Nigeria are organized post basic institutions where specialized type of education aimed at providing skills and knowledge required for employment in an occupation is provided. These institutions are designed to prepare individuals to acquire practical skills, basic and scientific knowledge and attitudes required as craftsmen in various trades. Muyiwa and Okeke (2017) disclosed that, technical colleges are established to train and produce craftsmen with saleable skills, knowledge and attitude necessary for effective employment. Abdulkadir (2011) stated that, the responsibilities of technical colleges include the provision of full time courses in the areas of technology, applied science and commerce relevant to the needs of the development of a nation. According to Federal Republic of Nigeria (FRN) (2014), the goal of technical colleges includes to provide: (a) Trained man-power in applied science, technology and commerce particularly at sub-professional level. (b) Individual who can apply scientific knowledge to the improvement and solution of environmental problems for use and convenience of man. (c) Technical knowledge and vocational skills, necessary in agriculture, commerce and economic development among others.

In order to achieve those goals, the National Board for Technical Education (NBTE, 2001), approved that the following trades be offered in technical colleges: Block Laying, Bricklaying & Concreting, Mechanical Engineering, Furniture design and construction, Craft Practice, Business Studies, Electrical and Electronics trades among others. Electrical and electronics of the vocational education trades in Nigeria technical colleges designed to meet the need of craftsmen that will repair, and service appliances such as radio, television and other electrical wiring and appliances such as refrigeration, cooking, and

laundry equipment. The trade offered at levels of certification leading to the award of National Technical Certificate (NTC) for craftsmen. According to Federal Ministry of Education (FME, 2004), electrical and electronics trade subjects principally include appliance maintenance and repairs, electrical installations and maintenance works, instrument mechanics, and radio, television and electronics work.

Subjects under Electrical and Electronic trade include: cable jointing and soldering, battery charging and maintenance, machine rewinding and installation, industrial installation, fault detection and rectification, electronics devices and circuits, radio and audio frequency amplifiers, radio system and television repairs and maintenance. Ogbu (2015) stated that the essence of establishing these subjects were to equip electrical and electronics trade students with the requisite skills related to their field of study for employment. Omozokpia (2011) noted that, equipping students with requisites skills depends largely on several factors among which are the students' behaviour, environment, teachers' characteristics and classroom management.

Classroom management is the term used to describe the process of ensuring that classroom lessons run smoothly despite disruptive behaviour by students. Classroom management has also been defined as the actions teachers take to create a supportive environment for the academic and social emotional learning of students (Özcan, 2017). Classroom management skills are intellectual abilities required by teachers based on knowledge about action-situation relationships in the classrooms. Brophy (2018) defined classroom management skills as body of competences that a teacher manifests in directing the affairs of the classroom organization. Classroom management skill is one of the most special skills needed by a teacher for effective teaching and classroom organization. This implies that, proper use of allocated classroom time is thus, useful for students to exhibit appropriate classroom behavior requiring little discipline skills.

Discipline skill refers to the strategies a teacher uses to manage students' behavior and attitudes during instructional time. Eric (2016) noted that, discipline skill is a key component to effective classroom management that ensures positive behavior in the classroom. A teacher who consistently uses discipline strategies exhibits more effective classroom management than the inconsistent teacher. Instructional supervision is an effective classroom management skill adopted by teachers in the classroom. According to Obot (2010), instructional supervision involves moving around the classroom to observe students closely, engaging them in academic activities, asking questions and employing both verbal and non-verbal teaching methods to ensure that students are paying undivided attention and taking more from the lesson than simple facts.

Tok, Sükran and Sevda (2013) revealed that, the academic performance of electrical and electronics students these days have given many stakeholders serious concern as technical college graduates cannot defend their certificates. This could be as a result of indiscipline exhibited by students in classroom such as lateness to classroom, noise making, and so on as a result of poor classroom management (Sunday-Piaro, 2018). It is therefore important, to explore electrical and electronics trade teachers' traits that may influence their classroom management skills such as teacher's personality (that is physical appearance, disciplined communication, temperament, organization, Teacher/pupil/student relationship, to mention but a few), environment, home life, disabilities, as well as social intelligence.

Social intelligence is the ability to compromise so as to understand and manage the people and engage in adaptive social situations. Though everyone needs intelligence in general and Social intelligence in particular. Especially it is essential for the Teachers to interact with the students effectively and for better understanding the students in the school environment. Social intelligence is closely related to one's own personality and individual behavior. Those with social intelligence are fully aware of themselves and understand their environment. Teachers with high levels of social intelligence are able to mould individuals from different age groups to lead a wholesome life. According to Garrett (2008), the understanding of classroom management has been related to behavioural learning-teaching approach by individuals for years. Social intelligence is an important ability for electrical and electronics trade teachers with regard to classroom management skills. Hence, this study aimed at

establishing the relationship between social intelligence and classroom management skills among electrical and electronics trade teachers Federal Capital Territory, Niger and Benue states. Nigeria.
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Statement of the Research Problem
A teacher's most important activity in a typical class environment is the one related to classroom management. Effective Learning and teaching cannot take place in a classroom without effective classroom management (Marzano, 2013). The teacher, as the class manager, is expected to lead the class environment as well as to create a proper learning environment and to prepare the physical conditions of the class. A well-managed classroom facilitates the learning and teaching process and can enhance students' class participation. One of the teacher's traits that can help him in achieving effective classroom management is his social intelligence.

Classroom management problems such as time management, students' behavior management, instructional supervision and delegation of authority have long been recognized as major issues in technical colleges (Edwards, 2008). Most Technical College teachers may not be adequately skilled at the use of social intelligence in getting their students involved in the process of teaching and learning. The consequence of poor classroom management which is for learning is more pronounced in Electrical and electronics trade classes due to complexity and rapid advancement in the trade whose understanding depends largely on effective classroom management. Studies on relationship between social intelligence and classroom management appear to be inconclusive. While some studies established relationship, others found no relationship (Yunis, 2011; Gasim, 2012).

Hence, there seems to be a deficiency in evidence as regard relationship between social intelligence and classroom management. Therefore, this study investigated the relationship between social intelligence and classroom management among Electronical and Electronic trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria.

Aim and Objectives of the Study
The aim of the study is to determine the relationship between social intelligence and classroom management practices among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States Nigeria. Specifically, the objectives of the study determined the:
1. Relationship between social intelligence and time management practices among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria.
2. Relationship between social intelligence and student behavior management practices among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria.

Research Questions
The following research questions guided the study:
1. What is the relationship between social intelligence and time management practices among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria?
2. What is the relationship between social intelligence and student behavior management practices among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria?

Hypotheses
The following null hypotheses were formulated and tested at 0.5 level of significance to guide in carrying out the study -
HO₁: There is no significant relationship between social intelligence and time management practices among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria.
HO₂: There is no significant relationship between social intelligence and student behavior management practice among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria.

Methodology

A correlational research design was adopted for the study. The study was conducted in Federal Capital Territory, Niger and Benue States, Nigeria. Correlational study is "a study that aims at determining the level of relationship between two or more variables" (Gogtay & Thatte, 2017). This study has two variables which are social intelligence and classroom management skills. A total of 62 electrical and electronic trade teachers constituted a population for the study. Tromso Social Intelligence Scale (TSIS) and Classroom Management Questionnaire (CMQ) were the two-instrument used for data collection for the study. TSIS was adapted for the study while CMQ was validated by three experts from Department of Industrial and technology Education. The reliability coefficient of CMQ was found to be 0.746 using Cronbach Alpha. A Scatter plot alongside the mean and standard deviation was used to analyse the answer research questions. The decision on interpreting the scatter plot relationship between social intelligence and time management practices relative to the trend line; the decision on scatter plot relationship is being ascertain with trend of data. For instance, the scatter plot relationship of variable X and Y can be interpreted as: if the data show an uphill pattern as you move from left to right, this indicates a positive relationship between X and Y. On the other hand if the data shows a downhill pattern as you move from left to right this indicate a negative relationship between X and Y while Product Moment Correlation Statistics and t-test were used to test the hypotheses at 0.05 level of significance.

Results and Discussion
Research Question One

What is the relationship between social intelligence and time management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue states, Nigeria?

The Figure 1 shows the scatter plot relationship between social intelligence and time management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue states, Nigeria
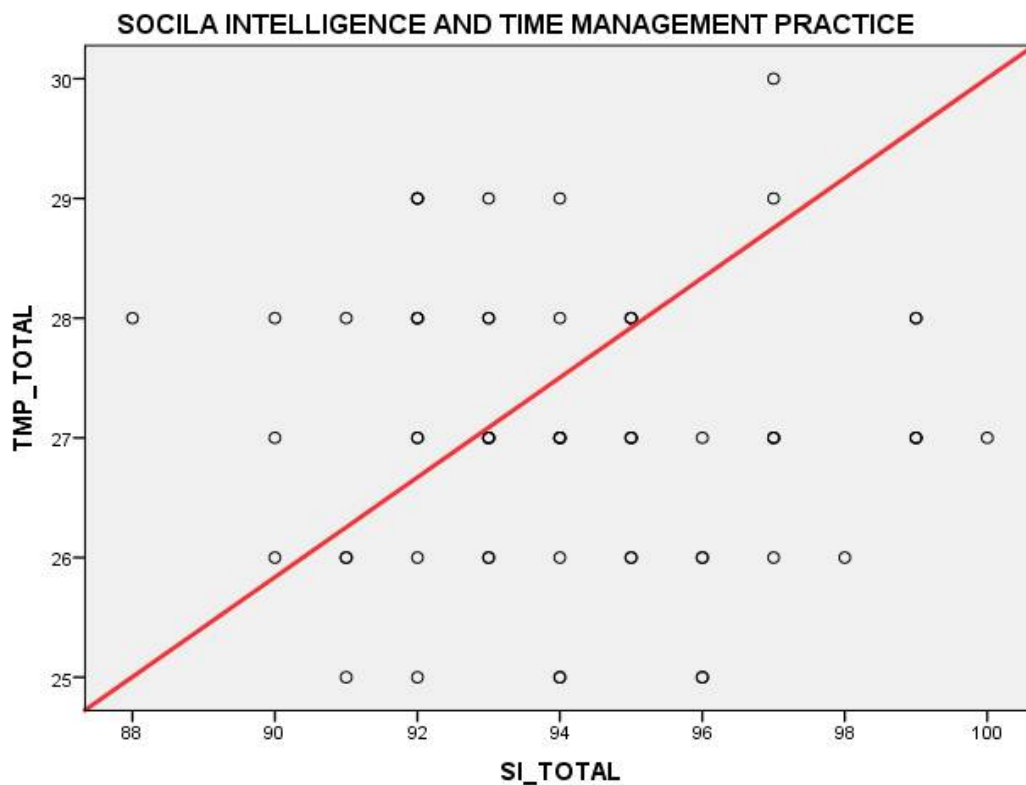
Figure 1: Scatter plot relationship between social intelligence and time management practices among electrical and electronic trade teachers.

From Figure 1, the Scatter plot of the relationship between social intelligence and time management practices among electrical and electronic trade teachers indicated that there was a positive relationship between the two constructs as indicated by the trend line.

The mean and standard deviation of the two constructs as shown in table 1.

Table 1: Grand Mean and Standard Deviation of Responses of electrical and electronic trade Teacher on social intelligence and time management practices

Variables	N	$\bar{x}$	SD	Difference
Social Intelligence	62	4.42	0.50	0.27
Time Management Practices	62	4.69	0.46	

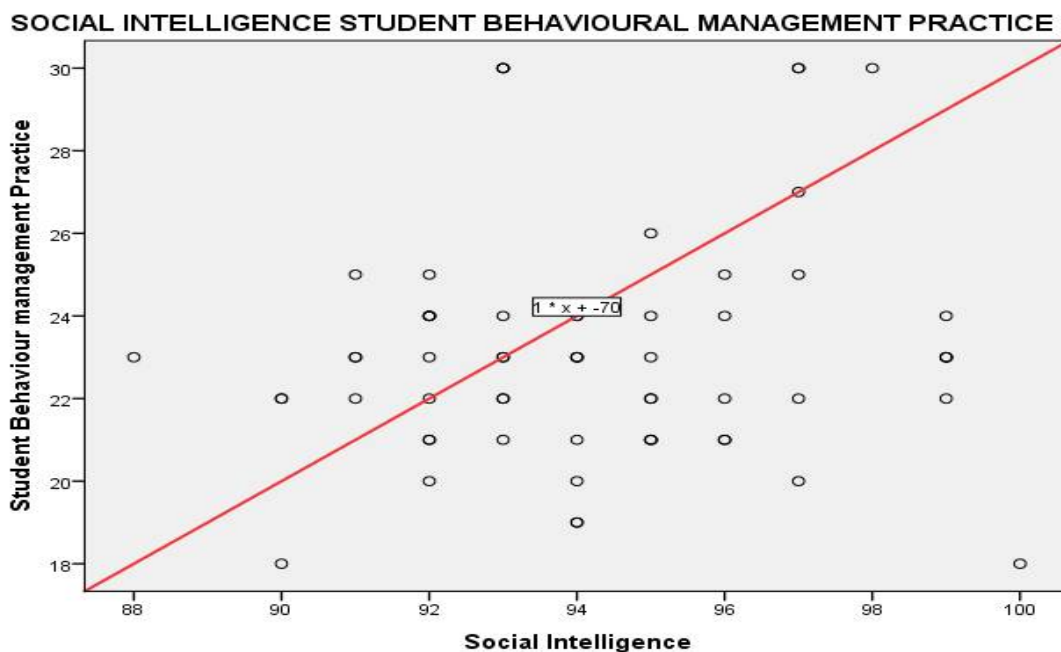Table 1 show the grand mean and standard deviation of responses of electrical and electronic trade Teacher on social intelligence and time management practices. The findings showed a computed grand mean score of 4.42 and Standard Deviation of 0.50 for Social Intelligence and a Mean score of 4.69 with a Standard Deviation of 0.46 for time management practices. This gave a Mean difference of 0.27 between electrical and electronic trade Teacher on social intelligence and time management practices in Federal Capital Territory, Niger and Benue states, Nigeria. This implies that the relationship between the variables was positive because the mean difference is not large. The smaller the mean difference the stronger is the relationship.

Research Question Two

What is the relationship between social intelligence and student behaviour management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue states, Nigeria?

The Figure 2 shows the scatter plot relationship between social intelligence and student behaviour management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue states, Nigeria

Figure 2: Scatter plot relationship between social intelligence and student behaviour management practices among electrical and electronic trade teachers

From Figure 2, the Scatter plot of the relationship between social intelligence and student behaviour management practices among electrical and electronic trade teachers indicated that there was a positive relationship between the two constructs as indicated by the trend line.

The mean and standard deviation of the two constructs as shown in table 2.

Table 2: Grand Mean and Standard Deviation of Responses of electrical and electronic trade Teacher on social intelligence and student behaviour management practices

Variables	N	$\bar{x}$	SD	Difference
Social Intelligence	62	4.42	0.50	
				0.42
Student Behaviour Management Practices	62	4.00	0.48	

Table 2 shows the grand mean and standard deviation of responses of electrical and electronic trade Teacher on social intelligence and student behaviour management practices. The findings show a computed grand mean score of 4.42 and Standard Deviation of 0.50 for Social Intelligence and a Mean score of 4.00 with a Standard Deviation of 0.48 for student behaviour management practices. This gives a Mean difference of 0.42 between electrical and electronic trade Teacher on social intelligence and student behaviour management practices in Federal Capital Territory, Nigeria, Niger and Benue States. This implies that the relationship between the variables because the mean difference is not large. The smaller the mean difference the stronger is the relationship.

Hypothesis One

HO₁: There is no significant relationship between social intelligence and time management practices among electrical and electronics teachers in technical colleges in Federal Capital Territory, Niger and Benue states, Nigeria

Table 3: Summary of Pearson Product Moment Correlation (PPMC) Analysis for Relationship between social intelligence and time management practices

Variables	N	$\bar{x}$	SD	r	p-value	Decision
Social intelligence	62	4.42	0.50			
				0.845	0.025	*Sig.
Time management practices	62	4.69	0.46			

Sig = Significant at p < .05 level of significance, df=60

The result in Table 3 shows a probability value (p-value) of 0.025 which is less than 0.05 level of significance. The test is significant, implying that there is significant relationship. Therefore, the null hypothesis which stated that there is no significant relationship between social intelligence and time management practices among electrical and electronic trade teachers in technical colleges in in Federal Capital Territory, Nigeria, Niger and Benue States rejected and it is concluded that there is significant relationship between social intelligence and time management practices among electrical and electronic teachers in technical colleges in Federal Capital Territory, Niger and Benue states, Nigeria.

Research Hypothesis Two

HO₂: There is no significant relationship between social intelligence and student behaviour management practices among electrical and electronics teachers in technical colleges in Federal Capital Territory, Niger and Benue states, Nigeria.

Table 4: Summary of Pearson Product Moment Correlation (PPMC) Analysis for Relationship between social intelligence and student behaviour management practices.

Variables	N	$\bar{x}$	SD	r	p-value	Decision
Social intelligence	62	4.42	0.50			
				0.432	0.002	* Sig.
Student behavior management practices	62	4.00	0.48			

*Sig = Significant at P< .05 level of significance, df=60

The result in Table 4 shows a probability value (p-value) of 0.002 which is less than 0.05 level of significance. The test is significant, implying that there is significant relationship. Therefore, the null hypothesis which stated that there is no significant relationship between social intelligence and time management practices among electrical and electronics teachers in technical colleges in Niger State, Benue State and Federal Capital Territory, Nigeria is not accepted and it is concluded that there is significant relationship between social intelligence and student behaviour management practices among electrical and electronic trade teachers in Federal Capital Territory, Nigeria, Niger and Benue States.

Findings of the study
Based on the data collected and analyzed, the following findings
1. There was positive relationship between social intelligence and time management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue states, Nigeria.
2. There was positive relationship between social intelligence and student behaviour management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue states, Nigeria is positive.
3. There was significant relationship between social intelligence and time management practices among electrical and electronic trade teachers in Federal Capital Territory, Nigeria, Niger and Benue States.
4. There was significant relationship between social intelligence and student behaviour management practices among electrical and electronics teachers in Federal Capital Territory, Niger and Benue states, Nigeria.

Discussion of Findings
The finding of the study showed that the correlation between social intelligence and time management was highly positive. This indicates that there is a relationship between social intelligence and time management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue states, Nigeria. This finding agrees with Kathleen, Frederic and James (2013) who found out that effective time management is useful for teachers' development of social intelligence.

The findings on the corresponding hypothesis on the relationship between social intelligence and time management revealed that there was a statistically significant relationship between the two constructs. Therefore, the null hypothesis which stated that there is no significant relationship between social intelligence and time management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria was rejected and it was concluded that there is a significant relationship between social intelligence and time management practices among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria. This supports the findings of Tok *et al.* (2013), who evaluated the relationship between social intelligence and classroom management. The results revealed that intelligence is a positive predictor of teachers' classroom management practices.

The finding of the study also showed the correlation between social intelligence and student behavior management to be a moderate positive relationship. This indicates that there is a positive relationship between social intelligence and student behavior management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria. This finding disagrees with

the finding of Sohini and Sanghamitra (2018) conducted a relationship study on social intelligence and students behaviour in classroom. Their findings revealed that there great level of relationship between social intelligence and student behavior management. But the findings of the present study only revealed that there is moderate relationship between social intelligence and student behavior management.

The findings on the research hypothesis also disclosed the level of significance of the relationship between social intelligence and student behavior management practices among electrical and electronics teachers in technical colleges in Federal Capital Territory, Nigeria, Niger and Benue States. It was revealed that there was significant relationship between social intelligence and student behavior management practices. Therefore, the null hypothesis which stated that there is no significant relationship between social intelligence and time management practices among electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria is rejected . This finding is corroboration to that of Hani and Sulaiman (2017) who investigated the level of social intelligence among the male and female principals in Tafila Governorate from the teachers' views and its relationship with creative behavior. The authors findings showed their was statistical significance relationship between social intelligence and creative behaviour.

Conclusion

This study assessed the relationship between social intelligence and classroom management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria. The study was divided into four levels namely, time management practices and student behaviour management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria. From the finding of the study, it was concluded that social intelligence positively influences time management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue States. It was also concluded that social intelligence has positive influences student behaviour management practices among electrical and electronic trade teachers in Federal Capital Territory, Niger and Benue States, Nigeria.

Recommendations

The following recommendations were made based on the findings of the study –
1. Electrical and electronics trade teachers in Federal Capital Territory, Niger and Benue States should give more attention to classroom management practices.
2. Electrical and electronics trade curriculum should be developed to include time management, delegation of authority, student behaviour and instructional supervision practices as major aspects of classroom management.

References

Abdulkadir, M. (2011). Assessment of teaching-learning practices in practical motor vehicle mechanic work at technical college level in Niger State, Nigeria. Unpublished MTech thesis, Federal University of Technology, Minna.

Brophy, J. (2018). Educating teachers about managing classroom and students. *Teaching and Teacher Education*. 4(1), 1 – 18.

Edwards, C. H. (2008). *Classroom Discipline and Management*. Hoboken, NJ: John Wiley and Sons.

Eric, S. R. C. (2016). Discipline. Retrieved 25th February, 2018 from: http://teaching.about.com

Federal Ministry of Education (FME) (2004). *Ministerial initiative on e-education for Nigerian education system*. Abuja: Federal Ministry of Education.

Federal Republic of Nigeria (FRN) (2014). *National Policy of Education. (6th Edition).* Nigerian Education Research and Development Council (NERDC) Press, Yaba- Lagos Nigeria.

Garrett, B. L. (2008). Judging Innocence. *Columbia Law Review,* I1(2) 55-142.

Gasim, G (2012). Social intelligence level among secondary schools principal in Kuwait and its relationship with organizational stress. *Education Journal*, 7(5), 32-38.

Hani, K. & Sulaiman H. (2017). Social Intelligence of Principals and Its Relationship with Creative Behavior. *World Journal of Education,* 7(3): 84-91.

Kathleen, M.C., Frederic, L., & James, H. M. (2013). *Educational psychology*. New York: The Dush Kin Publishing Group. Inc.

Marzano, R. (2013). *What works in schools.* Alexandria, VA: Association for Supervision & Curriculum Development.

Muyiwa, B. & Okeke, E. P. (2017). Sustainable development and self-reliance: the role of technical and vocational education and training. *Journal of Educational Review,* 9(2), 33-37.

National Board for Technical Education (NBTE) (2001). *Electrical installation and maintenance works curriculum and course specifications.* Kaduna: NBTE publication.

Obot, T. U. (2010). *Gaining student's attention in the Classroom and Students' Academic Performance in Ibesikpo in Ibesikpo Asutan Local Government Area.* (B. Ed.).Unpublished project, faculty of education, University of Uyo, Uyo.

Ogbu, J. E. (2015). Strategies for improving the teaching and learning of electrical and electronics subjects in technical colleges. *Industrial Engineering Letters, 5*(10), 12-19.

Omozokpia, P.A. (2011). Analysis of constraints militating against production work in engineering trades cluster of technical colleges in Northern States of Nigeria. *Journal of Engineering Technology and Industrial Applications, 1* (3), 12 – 16.

Özcan, M. (2017). *Effective classroom management strategies for educational practice.* Oman: Euro-Khaleeji Research and Publishing House.

Sohini B. & Sanghamitra G. G. (2018) A Relationship Study on Social Intelligence and Teachers' Behaviour In Classroom. *Online Journal of Multidisciplinary Subjects*, 12(2), 283 – 299.

Sunday-Piaro, M. (2018). Classroom management and students' academic performance in public secondary schools in Rivers State. *International Journal of Scientific Research in Education, 11*(5), 940-963.

Tok, T. N., Sükran, T. & Sevda, D. D. (2013). The relationship between emotional intelligence and classroom management approaches of primary school teachers. *Educational Research, 4*(2), 134-142.

Yunis, M. (2011). *Management success*. Riyad: Alafkar Aldawleh Publishing.