

EFFECTS OF PERCEIVED LECTURERS' COMPETENCE AND CLASSROOM ENVIRONMENT ON STUDENTS' ACADEMIC PERFORMANCE

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ABSTRACT: *The intention of this study was to investigate how perceived teachers' competence and perceived classroom environment affect academic performance. Two hundred and sixty randomly selected final year National Diploma (ND II) students of the Federal Polytechnic, Ilaro, Ogun State, Nigeria were involved in this study. They were given two questionnaires that took approximately, fifty minutes to complete. The study was conducted in a classroom environment during regular school hours. After collecting information from the students through questionnaires, their comprehensive Grade Point Average (GPA) in previous year were also collected. This GPA data were then compared to the scores obtained from the questionnaires. This study concludes that there was a statistically significant relationship between teachers' competence and GPA, and that there is a statistically significant interaction between classroom environment and students' academic achievement. Consequently, it was recommended that governments and school authorities must embark on regular training programmes and encourage teachers advance their academic and professional qualifications so that they would be more competent. Also, stakeholders in education should formulate policies that will ensure the appointment of qualified and competent teachers as well as the adequate provision of academic facilities in all schools as such would result in higher academic achievement.*

KEYWORDS: Lecturers' Competence, Classroom Environment, Academic Performance, Content Knowledge, Cognitive Activation, Learning Support.

INTRODUCTION

Scholars have emphasized the importance of education in all human societies. For instance, Idowu (2011) portrays education as the process by which children or young adults develop the abilities, attitudes and other forms of behaviour that are of positive value to the society in which they live. It is an instrument of social mobility, a potent factor in national development and in social engineering, a key that unlocks the potentials of a people; empowers and equips the individuals in society to be active participants in, and beneficiaries from society, an apparatus that facilitates development and as well provides the basis for societal transformation (Isiyaku, 2011).

Expectedly, educational attainments should produce individuals who are not only knowledgeable but who can also decipher knowledge into action for his/her own advantage as well as that of the society at large. Thus, an educated person should have acquired the skills for self-confidence, wealth creation, employment generation, social mobility, and value re-education. In order to ensure all these, teachers must plan, organize, design, direct, motivate, and inspire students to learn, using standard teaching techniques to impact knowledge (Okolocha & Onyeneke, 2013). Competently, teachers must develop the students totally by enhancing their intellectual capabilities, developmental and cognitive intellectuality, foster psychosocial skills and draw out neurophysical aptitude (Akinmusire, 2012). However,

Okolocha and Onyeneke (2013) argued that the success of Nigeria's educational system depends upon a number of factors, which include the government, the society, student's personal characteristics, parental involvement, the quality of teaching, the school factors, and the teachers' ability to produce desired results measured in terms of competence.

LITERATURE REVIEW

The fact that lecturers and classroom arrangement have important influence on students' academic performance has been recognized by some researchers. For instance, Afe (2001) argues that teachers have been known to have important influence on students' academic achievement and they also play a crucial role in educational attainment because the teacher is ultimately responsible for translating educational policies and principles into actions based on practice during interaction with the students. In the same vein, Muzenda (2013) regards lecturers as the most imperative school-based factor that influences students' achievement levels as they (lecturers) can help change students' attitude and help them to accomplish better performance. But in order to do these, lecturers must have suitable competences.

Klieme, Harting and Rauch (2008) defined competence as the skills, knowledge, attitudes, and motivational variables that form the basis for mastery of specific situations. Some researchers have claimed that the concept of professional competence may be productively applied to the teaching profession and that the multidimensional concept of professional competence makes it possible to integrate several components of empirical research on the important qualities of teachers (Weimert, 2001; Achtenhagen & Renold, 2006; Goodman, Arbona & Dominguez de Rameriz, 2008). Akiri and Ugborugbo (2009) also regarded lecturers' competence as a multidimensional construct teaching that encompasses numerous interconnected elements towards transformation of knowledge to learners.

Adediwura and Tayo (2007) identified the different elements of lecturers' competence as subject knowledge, teaching skills, attitude and attendance. According to Adediwura and Tayo, the ability of a lecturer to teach effectively depends on the depth of knowledge he/she has. In other words, a lecturer whose understanding of the subject content is thorough uses clearer expressions comparative to the one whose background is weak. Impliedly, a teacher cannot teach what he/she does not know. Ganyanpfu (2013) asserts that the teaching skills of a lecturer can be determined by his/her ability to comprehend and transform knowledge concepts to be imparted to students. According to Shulman (1992), since the academic purposes of teaching are to help students to gain knowledge, acquire skills and values to function efficiently in the society, equip them with opportunity to develop and discover new information, enhance understanding of new concepts, appreciate their learning experiences, and improve their responsibility to become productive in the society thereby contributing to the socioeconomic and political development of the society, teachers are expected to first understand the detailed outcomes of the topic as well as the focus of the respective subject.

Eggen and Kauchak (2001) described a lecturer's attitude as a consistent tendency to react in a particular way, whether positively or negatively toward an academic matter. They emphasized that lecturers' positive attitudes are fundamental to effective teaching and students' academic attainments. According to them (Eggen & Kauchak, 2001), certain elements constitute teachers' attitudes that will facilitate a caring and supportive classroom environment. Such elements include caring, enthusiasm, teaching efficacy, democratic practices to promote students' responsibility, effective use of lecture, constructive interaction with students and high

expectation to promote students' motivation. Muzenda (2013) argues that these elements are associated with increase in students' academic performances. Similarly, Brunning, Schraw and Ronning (1999) claimed that teacher's characteristics such as personal teaching efficacy, modelling and enthusiasm, caring and high expectation promote learners' motivation and they (those characteristics) are also associated with increase in students' achievement (academic performances).

In a study of grade three students in schools in the states of India and Wyoming, Woods and Montagno (1997) found that teachers' attendance rate has a negative effect on student achievement. They found that in classes where teachers had the greatest number of absences, individual standardized test scores were lowered, student rank in class was lowered, and overall school scores were down as a result of frequent absences. Miller, Murnane and Willet (2007) also suggest that a high rate of absence may signal a teacher's lack of skill or effort when he/she is in school. In their opinion, "if such were the dominant pattern, then the observed negative relationship between teacher absence and student achievement would be an upwardly biased estimate of the causal impact of teacher absence on student achievement". Further, Bruno (2000) notes that high absenteeism by certain teachers tend to lower the morale of remaining teachers, thereby resulting in high teacher turnover as other teachers tend to feel more burdened regarding additional planning for their absent colleagues.

Kunter, Klusmann, Baumert, Richter, Voss, and Hachfeld (2013) concluded that teachers' professional competence comprises in-depth pedagogical content knowledge, constructivist beliefs, an intrinsic disposition toward their work, and self-regulatory abilities. According to them, these teacher variables predict better mastery of the instructional situation and produce positive effects in students. Higher levels of pedagogical content knowledge were linked to higher levels of cognitive activation and better learning support for students; higher levels of teaching enthusiasm were associated with better learning support and better classroom management, and adaptive self-regulation was linked to better learning support (Kunter, Klusmann, Baumert, Richter, Voss, & Hachfeld, 2013)

Ofoegbu (2004) concludes that academic performance in Nigeria is poor and this was attributed to poor teachers' performance in terms of accomplishing the teaching task, negative attitude to work and poor teaching habits. Bangbade (2004) also notes that teachers' attributes, which include teachers' knowledge of the subject matter, communication ability, emotional stability, good human relationship and interest in the job, have significant relationship with students' academic performance.

In the opinion of Sultan and Shifi (2014), competencies are particular and self evident qualities that are unavoidable for instructors to make a persuading and student favourable climate. According to them, competencies are concerned with three areas of students' behaviour which are basic for teachers to shoulder as prime obligations:

- ✓ Helping students to create basis and investigative disposition
- ✓ Assisting students to predict progressions in all circles of life and its effect on the social order
- ✓ To aid students in moderating and transmitting qualities supported by the social order

In order to perform these important obligations, teachers must have suitable perception of individual (student) disposition, needs and coping skills and they must also demonstrate high

request of professionalism inside and outside the classroom (Sultan & Shafi, 2014). A competent teacher is consistently warm and cheerful; has a clear vision of the set targets; carefully executes whatever is arranged; handles administrative issues inside and outside classroom in a practical manner; and presents academic themes in such a way that even the weak students are motivated.

While several researchers found direct positive relations between teacher competency and students' academic performance, some researchers have indicated contrariwise. For instance, Wamala and Seruwagi (2013) found that higher teacher competency alone may not directly translate into better academic achievement by students. Also, Starr (2002) argues that teachers' strong effect would significantly influence students' academic achievement, but he notes that other factors such as socioeconomic background, parental involvement, intellectual aptitude of student, self confidence of students, precious instructional quality and classroom environment have also been found to influence students' examination scores. In related studies, other scholars also found that perception of the classroom environment as reported by students was analyzed in connection to scholastic accomplishment (Bennacer, 2000; Crosnoe, Johnson & Edler, 2004) and such perception has developed as powerful indicators of performance outcomes (Bennacer, 2000).

Falsario, Muyong and Nuevaespana (2014) saw classroom environment as a composite of variables working together to promote learning in a comfortable manner and they posited that there are two aspects of classroom climate: the physical and social environment. The physical environment refers to the arrangement of chairs, tables, fixtures and pieces of furniture, the painting, lighting, and ventilation while the social environment refers to the leadership exhibited by the teacher like democratic, authoritarian, and laissez-faire and the mode of students' participation such as collaborative, individualistic, or competitive. Fisher (2008) describes physical environment as the physical room in which teacher and learners are the main elements including its spatial elements, that is, floor, windows, walls, as well as other classroom equipments such as desks, chairs, rugs, chalkboards, tack boards, easels, counters, and computer equipment but not limited to these things.

According to Falsario, Muyong and Nuevaespana (2014), the classroom climate influences students' achievement, their self esteem, and participation in class work. In their opinion, the most important aspect of classroom climate is the relationship between teacher and students as there must be elements of caring, trust, and respect in the interpersonal relationships between teachers and students. They argued that an effective classroom climate is one in which the teachers' authority to organise and manage the learning activities is accepted by the students and mutual respect and good rapport, as well as the atmosphere is one of purposefulness and confidence in learning. They also pointed out that a key consideration in effective classroom is the extent to which the teacher is able to foster favourable perceptions towards learning among students by establishing in students self-respect and self esteem regarding themselves as learners.

Green (cited in Falsario, Muyong & Nuevaespana, 2014) argues that "the future of the nation is on the shoulders of teachers and how they teach kids; the future of the world is in the classroom where the teachers are, and if we have any chance to guarantee a positive bridge to the 21st century, it is how we educate the children in the classroom today." Thus, classroom management is a critical part of effective and successful teaching as students perform well in an optimistic classroom atmosphere and an environment in which they feel secure, safe, cared for and involved.

According to Suleman, Aslam and Hussain (2014), classroom environment is a combination of different things, such as, lighting, temperature, ventilation system, size of the room, floor, walls, desks, chairs, rugs, whiteboards, computers, and so on. In their opinion, favourable classroom environment has a significant positive effect on the efficiency of any organization and acts as facilitating agent to provide a straight way for achieving predetermined objectives of an organization.

Suleman, Aslam and Hussain further identified five factors of classroom environment: visual factor, acoustic factor, thermal factor, spatial factor, and time factor. Visual factor refers to the quality of lighting in different parts of the classroom, that is, construction and arrangement of classroom in such a way that natural and artificial light would be available and also blocking any unwanted disruptions. Acoustic (audio) factor is also very important as it takes into consideration, the noise level of the environment. If not properly taken care of, poor classroom acoustics can adversely affect learning environment for many students as constant noise exposure can damage their cognitive performance and functioning (Higgins, Hall, Hall, Woolmer & McCaughey, 2005). Thermal factor suggests the climatic condition of the classroom, that is, the heating and ventilation of the classroom. According to Suleman, Aslam and Hussain (2014), thermal factor plays important role in making classroom atmosphere favourable and comfortable and hence affects their behaviour and performance. Spatial factor refers to the space utilization while time factor denotes the length of time that a student participates in class works and tutorials. Lyons (2001) claims that the quality and arrangement of school's physical facilities impact teachers' effectiveness and their performance and they also affect the academic achievement of the students.

Statement of Problem

The Nation (2017) reported that the problem that Nigeria is facing presently is as a result of the problems in the education sector as "many of the teachers in our classrooms are not qualified and this is the challenge we have to address." It was noted, for instance, that 1,300 out of 1,599 and 21,800 out of 33,000 teachers in Kaduna state failed in tests generally meant for primary four pupils in 2013 and 2017 respectively. According to the Newspaper, the story is the same in most parts of the country. The Newspaper opines that the government is to be held responsible for this trend because "years back, it (government) came up with a policy lowering admission requirements for people seeking to pursue careers in education, thus giving people the impression that teaching is an inferior course."

The Newspaper observed that most of the satellite campuses in the country have crash programmes for teachers where they certify them competent to teach after two summer programmes and the implication is that incompetent teachers are produced all over the place and these in turn, unleash hapless pupils and students who come out of their academic programmes only a shade better than they were when they gained admission. This is contrary to the practice in some other countries like Finland and South Korea where teaching is held in esteem and their best are sent to the classrooms.

Objectives of the Study

In line with the argument above, this study has set out to examine the inputs of teachers and school factors to the socio-academic developments of their students. Specifically, it investigates objectively, students' perceptions as a gauge for determining whether there is (or not) a causal relationship between perceived teacher competence, perceived classroom

environment and students' performance. To achieve this basic aim, two research questions were raised. They are:

- What is the effect of teacher competency and classroom environment (independent variables) on the academic performance of college students?
- What is the relative effect of each of teacher competency and classroom environment on the academic performance of the students?

RESEARCH METHOD

Participants

A random sample of 260 students (one hundred and eighteen females and one hundred and forty two males) of the Schools of Engineering and Social and Management Studies of the Federal Polytechnic, Ilaro, Ogun State, Nigeria participated in this study. They are all in the final year of the National Diploma (ND II). Out of the 260 students, 254 completed and returned the questionnaire, which makes a response rate of 97.7%. Their mean age in years was 23.4. The Polytechnic was preferred because the researcher teaches there, which makes it easier for him to access.

Instruments

Teachers' Competence

Questionnaire evaluating teaching competencies in university environment, which was developed by Moreno-Murcia, Torregrosa and Pedreno (2015), was used to measure the professional competencies of teachers as perceived by students. It comprises 28 items that was designed in Likert's 5-point response format that ranged from completely disagree (1), to disagree (2), undecided (3), agree (4), and strongly agree (5). Each student marked (✓) either of the response format (as appropriate) for each statement. The total score on the scale ranged from 28 to 140 where high scores indicate competence. According to Ananthanarayanan and kannan (2016) who had earlier used the scale in a study of critical appraisal by students on faculty-issues and feedback, the scale has good reliability and validity coefficients. For the present study, reliability coefficient of 0.82 was obtained.

Classroom Environment

The Classroom Learning Environment (CLE) questionnaire that was developed by McGhee, Lowell and Lemire (2007) was used to evaluate the students' classroom environment. It consists of 31 items that was designed in Likert's 4-point response format that ranged from strongly disagree (1), somewhat disagree (2), somewhat agree (3) and strongly agree (4). The maximum possible score on the instrument is 124 while the minimum score is 21. The inter-rater reliability values ranged from 0.81 to 0.97.

Academic Performance

The dependent variable for this study, which was academic performance, was evaluated using each student's Grade Point Average (GPA) from the previous session. The GPAs was measured on the established (as used by the Academic Board of the school) 4.0 scale ranging from 1.00 to 4.00. Higher grades indicate that the students performed well academically.

Data Analysis

Interaction outcomes were investigated by looking at how perceived teachers' competence and perceived classroom environment affect GPA.

Table 1: Analysis of variance as a function of teachers' competence and classroom environment

Predictor	SS	df	MS	F	P	D
Perceived Teachers' Competence	.265	2	.133	.317	.724	.008
Perceived Classroom Environment	3.066	1	3.066	7.41	008**	.088
Perceived Teachers' Competence X Perceived Classroom Environment	2.965	2	1.483	3.419	.032*	.085
Error	31.647	79	.407			
Total	37.365	84				
*p<.05**p>.01						

The factorial ANOVA revealed that there was a significant interaction effect for the teachers' competence by classroom environment on GPA $F(2,79) = 3.419$, $p < .05$. A main effect was not observed for classroom environment.

Table 2: Regression Analysis Showing Impact of Perceived Teachers' Competence and Academic Performance

Predictor	B	Std. Error	Beta	T	P
Constant	64.043	8.708		7.257	.000***
Perceived Teacher Competence	1.212	.089	.648	15.315	.000***
$R^2 = 0.76$. Adjusted $R^2 = 0.63$. $F(1,99) = 15.315$. $p < .000$ *** $p > .001$ ***					

Table 2 shows the regression analysis depicting the effect of perceived teachers' competence on students' academic performance. It was revealed that academic performance regressed on perceived teachers' competence significantly $R^2 = 0.76$. This means that perceived teachers' competence determined the students, performance as shown by adjusted $R^2 = 0.63$.

Table 3: Regression Analysis Showing Impact of Perceived Classroom Environment and Academic Performance

Predictor	B	Std. Error	Beta	T	P
Constant	67.432	4.087		15.416	.000***
Perceived Classroom Environment	1.172	1.292	.048	.951	.000***
$R^2 = 0.078$. Adjusted $R^2 = 0.312$. $F(1,499) = .926$. $p < .000$ *** $p > .001$ ***					

Table 3 above shows the regression analysis of the effect of perceived teachers' competence on perceived classroom environment. Results showed that perceived classroom environment was not related upon perceived teachers' competence as the value of R^2 is 0.078. Although the regressive value is small and insignificant, however, it means that perceived teachers' competence did not predict perceived classroom environment as shown by adjusted $R^2 = 0.312$.

DISCUSSION AND CONCLUSION

This study concludes that there was a statistically significant relationship between teachers' competence and GPA, and that there is a statistically significant interaction between classroom environment and students' academic achievement.

This discovery is in line with some previous researches. For instance, Sultan and Shafi (2014) found a significant relationship between perceived teachers' competence, classroom environment, and students' performance. In an investigation of the prognostic relationship between instructor's mastery and its impact on learner's performance, Weinert (2001) concludes that teachers' mastery is strongly connected with the ability to master the complex situations of students. In the same vein, Schacter and Thum (2004) and Muzenda (2013) found that lecturers' competence have positive significant influence on students' academic performance.

Moon, Mayes and Hutchinson (2004) averred that the professional characteristics, teaching skills and classroom climate are three important factors that are important in teachers control and influence the rate of achievements of students. Likewise, Elliot, McGregor and Gable (2000) argued that effectual teaching depends on engaging environment and teaching technique.

RECOMMENDATION

In view of the findings of this study, it could be recommended that governments and school authorities must embark on regular training programmes and encourage teachers advance their academic and professional qualifications so that they would be more competent. Also, classrooms should be well structured and adequately equipped, especially, with modern technologies and other audio-visual aids so that the students' academic performance would be strengthened.

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