THE INFLUENCE OF TEACHERS' MOTIVATION ON THE PERFORMANCE AND ATTITUDE OF STUDENTS TOWARDS SCIENCE

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Abstract

The study examined the influence of teachers' motivation on the performance and attitude of students towards science. The study adopted a descriptive research of the survey type. A randomly selected sample of 480 Junior Secondary School II students from six schools responded to the Students Achievement Test (SAT), Students Attitude Towards Science Questionnaire (SATSQ) and Teachers' Motivation Questionnaire (TMQ) developed by the researcher to collect data for the study. Two research hypotheses were raised to guide the study. The data collected were analysed using inferential statistics such as Pearson's Product Moment Correlation Analysis at 0.5 level of significance. The study revealed that teachers' motivation influenced students' performance and their attitude towards science. It was therefore recommended that science teachers should see themselves as role model to the students they are teaching and the government should provide the necessary incentives to the teachers so as to bring out the best in them. This will serve as a means of motivating the students positively so that they will be ready to listen to them during class activities.

Keywords: Teacher, Motivation, students, Performance, attitudes, Science.

Introduction

Education is the key to sustainable development (Wolfenson, 2000). What happens in the learning process between psychological implication of the teachers with regards to their motivation and the student ability to study well has an impact on students' opportunity to learn effectively. The activities in the classroom, the repeated actions in which students and teachers engage as they learn are important because they constitute the knowledge that is produced (Cobb, 2008). Teachers` motivation promote the effectiveness of schools as these are basic things that can bring about excellent academic performance and the right attitude to learn in the students. In lieu of this, the poor quality of education in science needs to be addressed urgently. Maicibi, (2003), opined that all institutions or organization are made up of human beings (workers) and other non-human resources. He further asserts that when the right quantity and quality of human resources are brought together, they can manipulate other resources towards realizing institutional goals and objectives. In other words, every institution of learning should do everything to attract and retain the best of human resources. The implication of this opinion is that well motivated science teachers will bring about well rounded students who will perform academically well in science subjects. Most teachers are trained and have clear goals to guide their teaching, but the teachers are inadequately motivated. This has led to public outcry about poor performance in science subjects at secondary school level.

Motivation could therefore be viewed as any force that would reduce tension, stress, worries and frustration arising from a problematic situation in a person's life. Where such incidence of tension, stress and worries are traceable to a work situation it might be referred to as negative organizational motivation (Ofoegbu, 2004). Teacher motivation could therefore be referred to as those factors that operate within the school system which if not made available to the teacher could hamper performance, cause stress, discontentment and frustration all of which would subsequently reduce classroom effectiveness and student quality output (Olochukwu, 1990). This shows that teacher motivation includes factors that cause, channel, sustain and influence teachers' behaviour towards high management and academic achievement standards in the classroom.

According to Nwanchukwu (2011), in developing country, such as Nigeria, where science education receives little or no political support, the most resource in science classroom is the science teacher. He stressed further that an adequately trained and highly motivated science teacher can rise above the constraining circumstances of paucity of material resources and government apathy. He therefore viewed that there is the need for teacher- education to produce self-motivation and effectively trained teachers who will continually seek solutions to problems facing the classroom teaching those who will initiate changes to improve their teaching and those who will not wait for government or external funding to implement such changes. He opined that the future of any nation lies in the hands of teachers. According to him, the quality of the present day teachers determines to a large extend the quality of the future citizens of the schools. Also, Bolat, (2007) pointed out that only effectively trained and professional Science teachers can be expected to communicate the excitement of Science and encourage curiosity in students. The teachers have a major role to play in the education of the

students and the way and manner they play their role will definitely go a long way in determining whatever performance the students put in their examinations.

Motivation of teachers and students in teaching and learning process can direct behaviour towards particular goals, lead to increase efforts and energy to enhance cognitive processing, increase initiation of and persistence in activities, determine what consequences are reinforced and it can also lead to improved performance. Bolat, (2007) is of the view that motivated teachers always look for better ways to do their teaching job, they are more quality oriented and are more productive. Therefore, it means that motivated teachers are determined, to give their, best to achieve the maximum output (qualitative education). Motivation can be in the form of regular payment of salary, fringe benefits, promotion of the teachers, provision of good working environment, maintaining high degree of relationship and improving the teachers general well being. Hence, any teacher that enjoys these is band to give all his best in discharging of his duty because he would derive satisfaction of being a teacher. When teachers are motivated, this will lead to good performance and high productivity to the sustain of the national growth and development and also, the welfare of its citizens at large.

It is a known fact that professionally trained teachers will always give in their best in carrying out their duties and responsibilities. Hence, it is important that teachers' activities must be rewarded as an encouragement in order to achieve the main objective of teaching and learning. The absence of motivation has negative effects on the standard of education in Nigeria as the students are being deprived of the needed knowledge because the teachers are not motivated to impact the needed knowledge.

It was observed by the researcher that teachers did not give in their best due to the low level of motivation they get from those in authority, their life looked deplorable due to the fact that they were deprived of the benefit they ought to enjoy hence making them ineffective and inefficient in their job. This may lead to the poor motivation of the students by the teachers and subsequently their poor performance and negative attitude of the students towards science. The poor performance of students and their negative attitude towards science may be due to students' lack of motivation, poor teaching methods of the teachers and teachers' motivation.

Therefore, the influence of teachers motivation on the performance and attitude of students towards science students when properly treated, will lead to good performance and positive attitude of the students towards science.

Purpose of the study

The purpose of this study was to investigate the influence of teachers' motivation on students' performance in science. It further investigated the influence of teachers' motivation on students' attitude towards science.

Research Hypotheses

1. There is no significant relationship between the teachers' motivation and students' performance in Science.
2. There is no significant relationship between the teachers' motivation and students' attitude towards Science.

Methodology

The research design for this study is a descriptive research of the survey type. The research is descriptive as the study describes the existing situations regarding the motivation of the teachers as determinants of students' performance and attitude towards Science. The research is also a survey because it studied a large area from which some schools considered to be representative of the entire group were used. The population of this study consisted of all Junior Secondary Schools students in Ogun State, Nigeria, numbering 143,034 students (Ogun State Ministry of Education, 2014). The sample for this study was 480 Junior Secondary Class II (JSS II) students selected randomly from six schools. Three instruments were developed by the researcher for this study, namely: Students Achievement Test (SAT), Students Attitude Towards Science Questionnaire (SATSQ) and Teachers' Motivation Questionnaire (TMQ). The SAT contained forty multiple choice objective questions obtained from the past questions of JSS 1-3 syllabus and answered by the students for $1^{1}/_{2}$hrs. Options were provided for the students to circle the correct choice. Each question attracts 1 mark making it a total of 40 marks. While the SATSQ and TMQ consisted 30-item statement structured on a 4-point Likert Scale type of strongly Agree (4), Agree (3), Disagree (2), and strongly Disagree (1). The data collected were analysed using Pearson's Product Moment Correlation Analysis at 0.5 level of significance.

Results

Hypothesis 1: There is no significant relationship between the Teachers' motivation and students' performance in Science.

Table 1: Correlation of Teachers' Motivation and Students' Performance In Science.

Variables	N	Mean	SD	Df	r_{cal}	r_{table}
teachers' motivation	480	88.23	11.91	479	0.318	0.195
students' performance in Science	480	64.40	12.46			

P<0.05

Table 1 shows that r_{cal} (0.318) is greater than r_{table} (0.195) at 0.05 level of significance. Therefore the null hypothesis is rejected. This implies that there is significant relationship between teachers' motivation and students' performance in science. It could be deduced that teachers' motivation influenced students' performance in science.

Hypothesis 2: There is no significant relationship between the Teachers' motivation and students' attitude towards Science.

Table 2: Correlation of Teachers' Motivation and Students' Attitude Towards Science.

Variables	N	Mean	SD	df	r_{cal}	r_{table}
teachers' motivation	480	88.23	11.91	479	0.725	0.195
Students attitude towards Science	480	83.12	15.80			

P<0.05

Table 2 shows that r_{cal} (0.725) is greater than r_{table} (0.195) at 0.05 level of significance. Therefore the null hypothesis is rejected. This implies that there is significant relationship between teachers' motivation and students' attitude towards Science. It could be deduced that teachers' motivation influenced Students' attitude towards science.

Discussion

The findings revealed that teachers' motivation has influence on the performance of students in science. This corroborated the findings of Lee & Burkim, (1996) who asserted that motivation plays a crucial role in Science learning, such as the conceptual change process, critical thinking process and scientific process skills which will improve their performance in Science. They stated that motivation to learn Science promotes student construction of their conceptual understanding of science. Hence Kanu, (1997) concluded that in the absence of school programmes which are the major responsibility of working with children in the school rests with the teacher motivational level which will increase their understanding of the subjects and hence perform well in Science. Maehr and Midgley (1991) in their findings affirmed that what takes place in the classroom, even though the classroom itself is not an island, is critical. The implication of this finding is that a teacher that is not motivated teacher will in return not motivate his/her students in the process of teaching and learning and hence the poor performance of the students in science.

The result for hypothesis two revealed that teachers' motivation has influence on the attitude of students towards science. This corroborated the findings of Liu (2005). According to him, motivation is not completely a new term. What is interesting about it is that it is commonly assumed to be a good thing that goes on influencing individual's attitude and performance at work. He stated that teacher motivation naturally has to do with teachers' attitude to work. It has to do with teachers desire to participate in the pedagogical processes within the school environment. It has to do with teachers' interest in student discipline and control particularly in the classroom. Therefore it could underlie their involvement or non-involvement in academic and non-academic activities, which operate in schools. The teacher is the one that translates educational philosophy and objective into knowledge and skill and transfers them to students in the classroom.

Classroom climate is important in teacher motivation. If a teacher experiences the classroom as a safe, healthy, happy place with supportive resources and facilities for teaching for optimal learning, he/she tends to participate more than expected in the process of management, administration, and the overall improvement of the school. The teacher commands and emits the image of one who improves knowledge and the physical conditions of the classroom through orderliness, discipline and control. He makes diagnosis of student's feelings and attitudes inferred by their behaviour and response in the classroom environment".

Conclusıons

İt is the submission of this study that teachers' motivation influence the performance and attitude of students towards science. This implies that student will perform better when teachers are motivated to do their work. That is, a motivated teacher will be very happy to teach hence motivating the students to learn and so improve their academic performance in Science subjects and make them develop the right attitude towards the learning of the subject.

Recommendations

It is therefore recommended that government should provide the necessary incentives to the teachers so as to bring out the best in them. The science teachers should also see themselves as role model to the students they are teaching. This will serve as a means of motivating the students positively so that they will be ready to listen to them during class activities.

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