

TEACHER-STUDENT RELATIONSHIP: A CORRELATE FOR THE REALIZATION OF TEACHING- LEARNING OBJECTIVES IN PHYSICS

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Abstract

The study investigated the influence of teacher-student relationship on the career commitment of senior secondary school Physics teachers. The study adopted a descriptive survey design. 85 senior secondary school Physics teachers in Ondo central senatorial district of Ondo State were involved in the study. A researcher questionnaire (teacher-student relationship, $r = 0.90$ and career commitment scale, $r = 0.76$) was used to obtain data for the study. Two research hypothesis were raised and tested at 0.05 level of significance. t-test statistics was used to analysis the data obtained from the study. Result from the study revealed that there was a significant difference in the career commitment of senior secondary school Physics teachers with high and low teacher-student relationship. Again, there was no significant difference in the career commitment of senior secondary school Physics teachers' base on gender. Recommendations from the study include that teachers should endeavour to improve on their relationship with their students. Also, teachers should create a stimulating, enriched and creative oriented working environment that will be beneficial to promoting and enhancing career commitment among physics teachers.

Keywords: Teacher-Student Relationship, Career Commitment, Learning Objectives

Introduction

Physics is an important aspect of science which cannot be over emphasized. It is the most exact of all the sciences and it's the closest to handle because of the numerous products which man uses are readily available to ease his work, transportation and leisure (Ogunneye, 2007). Physics is a branch of science that deals with energy and matter and their interactions (Omosewo, 2009). It is referred to as the science of measurement and its knowledge has contributed greatly to the production of instruments and devices of tremendous benefits to human race. Physics is one of the science subjects taught at the senior secondary school level of the Nigerian educational system. Its importance as a discipline cannot be overemphasized especially in the area of science and technology (Omosewo, 2008). In recent times, a giving number of reformers, policy makers and researchers have argued that many of the well publicized and pivotal causes and shortcomings of the elementary and secondary educational system in Nigeria are to a significant extent due to the inadequacies in the working conditions, resources and support afforded to school teachers. Proponents of this view believe that teachers are under paid, have too little to say in the operation of schools, are afforded too few opportunities to improve their teaching skills, suffer from lack of support or assistance and are not adequately rewarded or recognized for their effort. Invariably, the teaching profession has been reported to be replete of teachers who lack the right personality traits and career commitment (Adeyemo & Aremu, 1999; Adeyemo, 2001).

Professional commitment appears to be highly influential for not only a teacher's success during times of change but also for systems in seeking for change. The expectations on teachers to respond to current initiatives influences their professional lives in a number of ways. Unarguably, the behaviour of an organizations employee such as teachers in the educational system is paramount to the productivity of that organization. Literature has pointed to the fact that teachers' behaviour in the classroom is positively related to students achievement (Creemers, 1994; Good & Brophy, 1995). Again, there is a growing recognition that teachers' commitment is an

Bada, Abiodun A.

important contributing factor that determines school effectiveness. In addition, studies have indicated that there is a relationship between career commitment and job satisfaction (Borg & Riding, 1991; Kushman, 1992). Teachers are more satisfied with their jobs when they believe in their abilities and also foresee that they can have a positive impact (Hoy & Miskel, 2001). For such teachers, it is their commitment to the occupation, career and profession that will affect their behaviour rather than their commitment to the organization. The agreement is that the career commitment of the teacher is also an important criterion. However, the effect of factors such as teacher-student relationship and teacher's gender on the career commitment of secondary school teachers is yet to be given serious concern.

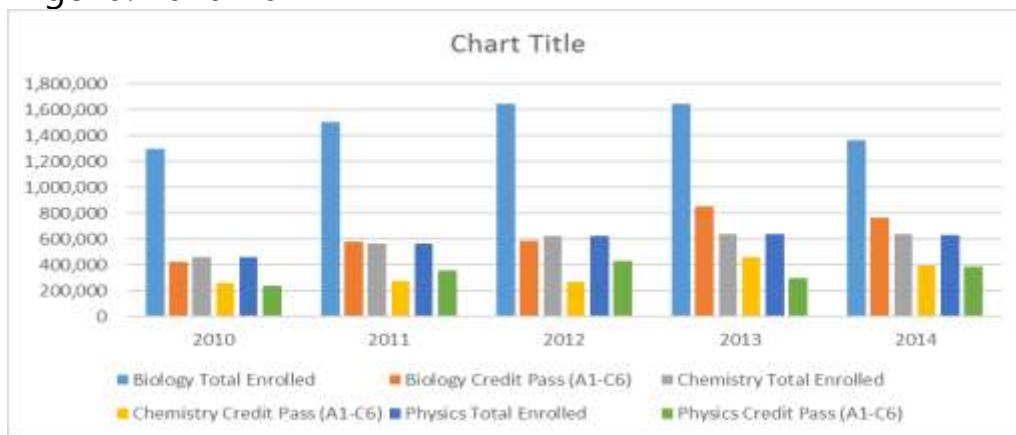
Teacher-student relationship refers to the significant social relations existing between the teacher and the students. The quality of the relationship between a teacher and a student is clearly linked to student gender (Baker, 2006; Kesner, 2000; O'Connor & McCartney, 2006; Saft & Pianta, 2001). Research on gender has focused on children during elementary school and middle school transition. To date, little research has focused on gender as a factor in examining adolescents perception of teacher relationships. Research has shown that girls have an overall higher quality of relationship with teachers (O'Connor & McCartney, 2006; Pianta & Stuhlman, 2004). More specifically, girls are rated as having higher degrees of closeness and lower levels of conflict with teachers (Baker, 2006). As a result of this, research has shown that high levels of closeness are also more beneficial for girls on measures of social competence. This means that girls' higher level of closeness in the relationship predicts school appropriate behaviours and better social behaviours such as being considerate of others (Ewing & Taylor, 2009). The gap between males and females on closeness with teachers continue to grow throughout elementary and secondary schools. This made Jerome, Hamre, & Pianta (2008) to state that female students experience a small decline in the degree of closeness with teachers than their male counterparts.

Amid the mounting pressure, it is perhaps vital to be informed on how teachers especially physics teachers perceive teaching as a career, and to what extent do their perceptions affect their career commitment. The correct and adequate teaching of physics is paramount to the realization of the objectives of teaching physics at the secondary school level of education. These objectives include:

- i. To provide basic literacy of physics for functional living in the society
- ii. To acquire basic concepts and principles of physics as a preparation for further studies
- iii. To acquire essential scientific skills and attitudes as a preparation for technological applications of physics and
- iv. To stimulate and enhance creativity (NERDC, 2013).

However, these objectives can only be achieved in the teaching-learning process if prominent attention is given to the relationship that exists between the teacher and the students. Despite the importance of physics to the technological development of any nation, the enrolment and performances of students in external examinations conducted by the West African Examinations Council (WAEC) have been unsatisfactory.

Figure 1 Candidates’ Enrolment and Performance in May/June Senior School Certificate Examinations in Biology, Chemistry and Physics in Nigeria: 2010-2014



Source: Statistics Section WAEC office Yaba Lagos 2015

Bada, Abiodun A.

As shown in figure 1, the number of candidates who enrolled for the West African Examinations Council physics continues to decrease over the years under review when compared to the enrolment of students in the West African Examinations Council's Biology and Chemistry. The best performance of students in physics was recorded in the year 2012 and despite that, the best performance of students in chemistry in the year 2013 was greater than that of physics. This situation has been a source of concern to WAEC and other educational agencies considering the important role physics plays in the technological knowhow of any nation. The performances of students in Senior Secondary School Examinations have not been so encouraging over the years. Curriculum agencies such as WAEC, NECO and STAN are concerned about the poor performances of students in external examinations. Several factors such a poor student attitudes, lack of motivation, poorly sourced teaching and learning environment, poor mathematical ability and poor teaching methods have been identified by different researchers (Ogunleye, 2009; Ogunleye & Babajide, 2011; Harry, 2011 and Erinisho, 2013). The behaviour of teachers in the educational system may also be paramount to the productivity of the system. It is yet to be ascertained that teacher-student relationship and teachers' gender could be a mediating factor in this problem. Teachers' career commitment may also play a pivotal role in the determination of teachers' behaviour in the classroom thus, assisting in improving student's grade in senior secondary school physics. This study therefore attempts to evaluate the relative effects of teacher-student relationship and teacher's gender on the career commitment of physics teachers in senior secondary schools.

Purpose of the Study

The study investigated the influence of teacher-student relationship on the career commitment of senior secondary school physics teachers in Ondo Central Senatorial district of Ondo State. Specifically, the study examined:

- i. if there was significant difference in the career commitment of senior secondary school physics teachers with high and low teacher-student relationship.
- ii. if there was significant difference in the career commitment of senior secondary school male and female physics teachers.

Research Hypotheses

The following null hypotheses were formulated to guide the study.

- i. There is no significant difference in the career commitment of senior secondary school physics teachers with high and low teacher-student relationship.
- ii. There is no significant difference in the career commitment of senior secondary school male and female physics teachers.

Significance of the Study

The findings from the study will assist curriculum agencies especially teachers to be more committed to their profession and to specific school organization. This will help in reducing strange behaviours such as absenteeism, tiredness, sabotage and incessant strikes, thus assisting in increasing efficiency in the performance of students especially in physics. Also, adequate understanding of the board of education on the levels of physics teachers' commitment will assist the board in motivating the labour force, design appropriate programme, appropriate curriculum and pay scale that will make it easier for teachers to be more committed and efficient, thus increasing students grades in external examinations. The understanding of this research will simply be put as enhancing commitment and its role in physics teachers' employment decision with emphasis on the interaction between physics teachers commitment and organization factors.

Scope of the Study

The study was limited to all the senior secondary schools in Ondo Central Senatorial district of Ondo State, Nigeria. The target population was all the

Bada, Abiodun A.

physics teachers in Ondo Central Senatorial district. Eighty five (85) physics teachers took part in the study.

Research Method

The study adopted a descriptive survey design. A survey usually deals with the description and analysis of the status of an area. It attempts to describe what exist now and explains why certain situations exist as well as the focus on the characteristics of the population by studying a representative sample. A survey design is a naturalistic study that is devoid of manipulations and control or research variables. The research tool used for the study was a questionnaire which consist of an introductory letter and three sections (Sections A, B, & C). Section A consist of attributive data such as name of school, age and gender. Section B consists of standardized instruments measuring teacher-student relationship scale developed by Leitao & Waugh (2007). The scale is an 15 item scale designed to reflect the three key social and emotional aspects that affect teacher-student relationship namely connectedness, availability and communication skills. Response format range from 1 for strongly disagree (SD) to 5 for strongly agree (SA). The reliability of the instrument was 0.90 using Person Separation Index. Section C consist of Career Commitment Scale developed and validated by Carson & Bedian (1994), based on the conceptualization and definition of career commitment as one's motivation to work in a chosen vocation. Increasing scores implies high career commitment while decreasing scores implies the reverse. The scale has an internal consistency of 0.76 and a reliability coefficient of 0.87 using a two week test-re-test procedure.

Result

Hypothesis 1: There is no significant difference in the career commitment of senior secondary school physics teachers with high and low teacher-student relationship.

Table 1: t-test analysis showing differences in the career commitment of senior secondary school physics teachers with high and low teacher-students relationship

Teacher	N	Mean	SD	dF	t-Cal	t-Crit	Decision
High	32	43.33	8.90	83	5.34	1.98	significant
Low	53	42.00	13.6				

The analysis in table 1 showed that the t-calculated value of 5.34 was greater than the t-critical value of 1.98 at a significant level of 0.05. This implies that there was significant difference in the career commitment of senior secondary school physics teachers with high and low teacher-student relationship. The null hypothesis is hereby rejected with teachers with high teacher-student relationship having the higher mean score. This implies that they are better committed than those with low teacher-student relationship.

Hypothesis 2: There is no significant difference in the career commitment of senior secondary school male and female physics teachers.

Table 2: t-test analysis showing differences in the career commitment of senior secondary school male and female teachers

Teacher	N	Mean	SD	df	t-Cal	t-Crit	Decision
Male	58	40.03	7.68	83	1.32	1.99	Not significant
Female	27	41.86	10.34				

The analysis in table 2 showed that the t-calculated value of 1.32 was less than the t-critical value of 1.99 at a significant level of 0.05. This implies that there was no significant difference in the career commitment of male and female senior secondary school physics teachers. The null hypothesis is accepted.

Discussion of Findings

Findings from the study showed that there was significant difference in the career commitment of senior secondary school physics teachers with high and low teacher-student relationship. The result in table 1 indicates that physics teachers with high teacher-student relationship were better in career commitment than those teachers with low teacher-student relationship. This implies that as teachers get more involved positively with the activities of their students, they tend to become more committed to their career. However, the reverse case of not been involved positively with their students activities tend to minimize teacher's career commitment. Research findings make it apparent that teacher-student relationship are important for student success in academics and better social, emotional and behavioural functioning. This further affirms a teacher commitment to the teaching career. Teacher commitment is highly related to teacher's work performance, which has a significant influence on student's achievement. Students are the most important element in any education institution (Celep, 2001), hence the need for teachers to build a positive relationship with them.

Also, there was no significant difference in the career commitment of male and female senior secondary school physics teachers. However, female teachers had higher mean score in career commitment than their male counterparts. The findings of the study is in agreement with previous studies on gender difference and career commitments (Drew & Emerek, 1998; Greinhaus & Parasuramn, 1999; Stockman, Bonney & Xuewen, 1995; Veenis, 1998). Gender exerts considerable influence over motives to teach, later job commitment and possibly lead to job satisfaction.

Conclusion

The study is a comparative analysis of the career commitment of senior secondary school physics teachers. The study was based on a series of traditional characteristics used to distinguished professions, professional and professionalized work sites from other kind of work, workers and work

place. Sociology has been among the most prominent disciplines to study the characteristics of profession. There are several reasons for such a large proportion of the diversity in teacher commitment within the school. First, commitment is a subjective phenomenon and could vary according to the perceptions and inclinations of different individuals, regardless of the characteristics of their school. Second, teachers in different departments and units within the school may have differing experience and hence vary in their reports on commitment.

Recommendations

The following recommendations were made based on the findings from the study.

- i. Physics teachers should endeavour to improve on their relationship with their students.
- ii. Policies that will guarantee good working conditions of service as it concerns welfare package enrichment programmes and renumeration for secondary school physics teachers should be encouraged.
- iii. Good line of communication between teachers and students should be encouraged.

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Bada, Abiodun A.

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Bada, Abiodun A.

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