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

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The study found out the relationship among teachers’ attitude and student’s academic achievement in secondary school chemistry. Despite the importance of chemistry to mankind and the effort of researchers to improve on its teaching and learning, the achievement of students in chemistry still remain low in Nigeria. Among the factors that have been identified outcomes in chemistry are: poor method of instructional material, teacher’s attitude, Laboratory inadequate and poor science background knowledge. A quasi experimental design was adopted for the study. The population was made up to 124 SSS chemistry students and all chemistry teachers from the selected secondary schools in Ijebu-Ode and Odogbolu Local Government Area of Ogun State Nigeria. Two research instruments were used for data collection: Teacher attitude towards chemistry teaching scale (TATCTS), chemistry achievement test (CAT). The data were analyzed on the basis of the two hypotheses, using independent samples t-test, analysis of variance (ANOVA) and Pearson Product moment correlation. Arising from the findings, it is implied that attitude of teachers teaching chemistry in our senior secondary schools have significant effect on the achievement of students in chemistry as one of the science subject. It must be realized that, if teachers show positive attitude towards the teaching of chemistry the achievement of students will be better than what we have now in our secondary schools.

Keywords: Quasi, pearson, Ogun state, CAT, TATCTS, ANOVA.

INTRODUCTION

In science education, attitude toward science is an important factor affecting students’ science achievement as well as students’ alternative conceptions or misconceptions. Attitude is a hypothetical construct that indicates an individual like and dislike towards an item. It may be positive, negative or neutral. Attitude is an approach, temperament, sensation, situation, etc. with regard to a person or thing: inclination or course, especially of the mind. Attitude is a way of looking at things (Muellerléele, 2005).

An attitude may be defined as a predisposition to respond in a favorable or unfavorable manner with respect to a given attitude object (Oskamp and Schultz 2005). Every science teacher considered the development of positive attitude towards science subjects as his center responsibility (Cheung, 2009).

Unluckily, what is going on in our science classrooms is not particular to the students across all ages, research has revealed, (Stark and gray 1999: Cheung 2009).

According to Yara (2009), teacher, attitude and his method of teaching can greatly influenced the students’ attitude. Bennett et al. (2001) also explored that the undergraduate students who had developed a lower constructive attitude towards chemistry almost always got low grade in examination. A number of factors have been identified as related to students attitude towards chemistry, such factors include teaching methods, teacher attitude, influence of parents, gender, age, cognitive style of pupils, career interest, and social implication of chemistry and achievement, Adesoji (2008)
Olatoye (2001) found that students' attitude towards chemistry have significant direct effect on students' achievement in the subject, reported by Abulude, (2009). Understanding of students' attitude is important in supporting their achievement and interest towards a particular discipline. Students' attitude towards science have been extensively studied, Dhindsa & Cheung (2003), Osborne et al. (2003), but research was initially focused greatly on Science in general (Dawson, 2000) and less attention was addressed to particular discipline like biology, Physics and Chemistry (Salta and Tzougriki, 2004).

This can partly camouflage students' attitude towards science because science is not viewed as homogenous subject. (Spall et al., 2004). In science education, attitude toward science is an important factor affecting students' science achievement as well as students' alternative conceptions or misconceptions. An important reason for examining attitudinal constructs in science education is to be able to understand the ways in which they affect student learning in the cognitive field. Students' interest is likely to be positively correlated with their achievement in science understanding (Simpsonet al., 1994).

The development of scientific literacy among students requires their positive attitudes toward science (Linn, 1992). There are some research findings showing evidence for the relationship between students' attitudes towards school science and their achievement in science (e.g., Neathery, 1997; Simpson & Oliver, 1990; Osborne & Collins, 2000).

These studies show that the students who have more positive attitudes towards science would be more successful in science classrooms. The relationship between attitude and achievement is influenced by contextual factors, including classroom organization, teacher authority, the nature of classroom academic tasks, and evaluation structure. These contextual factors may serve to strengthen the relations between attitudinal constructs and science learning as well as to weaken them (Pintrich, Marx, & Boyle, 1993).

According to Koballa and Glynn (2007), students' science learning experiences affect their attitudes positively, increase their motivation for science learning, and as a result, lead to higher achievement in science. Students also have different attitudes toward different domains of science: physics, chemistry, and biology (Osborne & Collins, 2001).

The quality of science teaching is an important factor affecting students' attitudes toward school science (Ebenezer & Zoller, 1993; Osborne, Simon, & Collins, 2003). Using laboratories in science or chemistry lessons positively affects students' attitudes toward that lesson (Adesoji & Raimi, 2004).

In the literature, there have been many research studies on the effect of different instructional strategies on students' attitudes (Gibson & Chase, 2002; Wong et al., 1997). A common hypothesis with respect to teacher's attitude and student achievement is that students taught using the right approach or attitude achieve at a higher level because their teachers have displayed the right attitude and acquired classroom management skills to deal with different types of classroom problems (Slavin, 1987; Evan, 1992, Gibbons et al., 1997).

Furthermore, more experienced teachers are considered to be more able to concentrate on the most appropriate way to teach particular topics to students who differ in their abilities, prior knowledge and background (Rauden bush and Williams, 1991).

Stringfield and Teddlie 1991, Ejiogu, 1999 was of the view that in order to improve on any aspect of education, it is therefore imperative to involve a well-articulated teacher education programme that will prepare the teacher for the leadership role they are expected to play.

The importance of teacher in the meaningful education at all level is reflected in the national policy on education (2004) as it declares that no educational system may rise above the quality of its teachers.

This declaration in the policy document underscores the need for teacher effectiveness in our schools. Conceptualizes teacher's effectiveness as the managerial skills essential for enhanced classroom control and discipline. It is the teacher's competence, ability, resourcefulness and ingenuity to efficiently utilize the appropriate language, methodology and available instructional materials to bring out the best from learners in terms of academic achievement.

It has been observed that teachers teach science in a way that merely requires the students to listen, read and regurgitate. This depicts negative attitude to teaching. Several research findings have confirmed the hypothesis that teacher's attitude either towards science or towards science teaching affect their students achievement in and attitude towards science.

Okpala (1985) found that, the effect of teacher's attitude towards assessment practices on student's achievement and their attitude towards physics was positive. In the same vein, Onocha (1985) reported in one of his findings that teacher's attitude towards science is a significant predictor of learner's achievement as well as their attitude. Also Igwe (1985) showed that, the effect of teachers' attitude to chemistry was stronger on the student's chemistry achievement that on their attitudes.

To Abimbade (1999), teachers are said to be effective when their teaching can lead to students learning. Nothing has been taught until it has been learnt and this happens when the teacher succeeds in causing a change in behaviour in the learner. It is therefore important that the teacher must see teaching as an attempt on his own part to transfer what he has learnt to his students using the right approach attitude.

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. It is important to note that the various dispositions that our teachers display at work betrayed their devotion.

This has greatly affected the attitude and in particular, the learning of chemistry and hence their poor performance in the subject. Many have no mastery of the curriculum content and the organization is highly detestable. Teachers’ effective reactions to work are not as good as they should be in many of our schools yet, teachers are looked upon as instrument of social engineering, progress and change. This declining outlook calls for immediate diagnosis and treatment.

The present study investigates teacher’s attitude and its effect on student's achievement in chemistry with a view to confirming or annulling the above several claims.

Statement of the problem

The importance of science particularly chemistry in the technological development of a nation cannot be over emphasized. However we cannot lose sight of the fact that in any teaching learning situation, the students, the teachers, the curriculum and the learning environment are the four pilot’s factors that make learning to be meaningful.

However, a problem concurrently predominant in schools is that of teachers having a poor attitude which makes the teaching learning process dangerously done. As related to the tenets of this research work, it has been reported that students academic achievement in chemistry has been lowered by the teacher’s poor attitude to the teaching of the subject matter (Samuel 2010).

Therefore, to eradicate this endangering problem, it is necessary to investigate teacher’s attitude towards the teaching of chemistry in our secondary schools and its effect on student’s achievement.

Research question

The objective of this research work is to answer following questions:

• To what extent does the teacher attitude determines that academic achievement of secondary school students in chemistry?
• What is the level of academic achievement of the students studying chemistry in our secondary schools?

Research hypotheses

In relevance to the above questions, the following hypothesis was tested:

• There is no significant relationship between the teachers’ attitude and the student academic achievement in SSS chemistry.
• There is no significant difference between the mean chemistry achievement scores of male and female students in SSS chemistry.

Purpose of the study

This research work look at the position of chemistry teaching in some of our secondary schools and how the position affects academic achievement of our students. It also identifies some of the factors affecting the teaching of chemistry and the relationship with student’s academic achievement. The study also looks at methods or ways to improve student’s academic achievement in chemistry examinations.

Significance of the study

This study enable us to have first hand knowledge about teacher’s attitude towards the teaching of chemistry and how this affects the achievement or learning outcome of the learners. This study therefore help in throwing more light on how teachers attitudes affects the learning of chemistry and other science subjects in general and as well the factors responsible for the teacher's attitude (positive or negative) towards the teaching of chemistry or science as a field in which chemistry is an integral part.

Scope of the study

This study sorts to figure out the teacher’s attitude and its effect on students’ achievement in chemistry in some selected senior secondary schools in Ijebu-Ode and Odogbolu Local Government Area of Ogun State. This investigation does not include primary schools and Junior Secondary schools within the area.

TEACHER-STUDENT RELATIONSHIP

Some of the greatest teacher’s in the history includes Socrates and Plato. They stressed the need for close relationship between the student and teacher. A similar association and relationship is been established or exhibit in ancient Indian between the master and disciples (Herr 2008).

Rabinder Natth Tagore also believed in the more humane relationship between teacher and student (Boelcaerts 1991). When he started his institute “nilaetan” (a house filled with peace). The important of such close relationship between student and teachers lies in (Rabinder Nath Tagoral) includes:
• Removing the fear and stress from student's mind
• Developing a common language and mutual understanding
• Reducing the communication gap.
• Providing a perfect environment for learning.

TEACHING TECNIQUES

All teaching techniques must result in improving communication with the students. The students teacher communication can be viewed very much like radio communication, for effective teaching, teacher must be able to give a gauge to the frequency range of the receivers (student) and to adjust his transmission frequency (laymantal 1996).

One important difference between a specific or successful teacher and a poor teacher is the techniques and material they use in creating interest in the subject been taught. These also contribute in the achievement of student in their academic behaviour towards the subject (chemistry).

Okeke and Obanga (1981) in an inaugural lecture titled “teaching and cheating” noted that teaching is considered all-comer profession, in fact as an area which professionalization is not necessary while doctor, the pharmacist, the architect, the accountant and so on, pursue a serious programme of internship, does not in teaching instead, teaching practice is also organized in a meaningful ways. The result is that a great proportion of those who teach in our schools are not really trained and certified teachers.

Aminu (1984) also observed that most applicants to the teacher training institutions have no intention to teach. They would accept placement on the course only after they have failed to gain admission to other courses of their choice on admission. Aminu (1984) further noted, they tend to concentrate on academic programme that could enhance their transfer to their original interests, many students show distaste for an often resist professional aspect of their training programme. It is now wonder therefore why teaching periods are not popular among student’s teachers.

Unfortunately, there are lecturers who only find themselves as teachers trained after they too have tried without success, to secure jobs in other areas. They also cannot appreciate the importance of the work-experience and in teaching practice. The readily support the reluctant students arguing for more academic content of the syllabus to the neglect of the teaching practice.

Effect of teacher factors on students

Despite the importance of chemistry to mankind, the efforts of researcher to improve on its teaching and learning, the achievement of students in chemistry still remains low in Nigeria.

Among the factors that have been identified, outcomes in chemistry are poor methods of instruction (Osu, 1999) teacher’s attitude, Laboratory inadequate Raimi 1998, Basiah 1999 and Adeyegba 2003) and poor science background (Oshokoya, 1998 and Adesoji 1999). The teacher plays a significant role during the learning process and they can directly or indirectly influence the student’s attitudes toward science which in consequence can influence student’s achievement, teacher are invariable role models whose behaviours are easily mimicked by students.

What teacher like or dislike appreciate and how they feel about their learning or studies could have a significant effect on the students. By extension how teacher teach, how they behave and how they interact with students can be more paramount than what they teach. Teacher attendance at chemistry work shops, laboratory adequacy, class size and location of the school can also effect on teaching of the subject (chemistry) by the teacher to the students. One of the fundamental problems facing science teaching today is the question of how current are professionals teachers.

The majority of teachers who have been employed in the past decade have been doing the same thing, the same way all along. They have no knowledge of the current ideas and motivations that have taken place in the educational field in the recent past. What accounts for this is that teachers have not been given opportunity for re-training (Ogunbiyi 2004). He therefore recommended that teachers should be encouraged to go for workshop training in their areas of specialization.

Attitude of students can be influenced by the attitude of the teachers and his/her method of teaching. Studies carried out have shown that the teachers method of chemistry teaching and his personality greatly accounted for student positive attitude towards chemistry and that without interest and personal effort in learning chemistry by the student, they can hardly perform well in the subject, it is recommended that the teacher should develop positive relationship with students and stress classroom activities that involve active teaching-learning process and students participation in the class. Stakeholders (community, government) showed organize periodic seminars and workshops for student and teachers designed to promote positive attitude towards chemistry. Numerous studies reveal the tremendous effects in which the school and the teacher can have on the student achievement.

A study conducted by Scinders and Horn (1994) reveals a percentage point difference in student achievement in chemistry between students with most effective and least effective teacher, in classroom headed by teachers characterized as most effective” student posted achievement in chemistry gains a high percentage point over the course of one academic year, where as in
a classroom led by “least effective teacher”, student achievement gains low percentage points. Effective teaching begins with effective teacher preparation in teacher preparation programs, state should focus their efforts on ensuring that teachers have strong equipment to use.

Teaching-learning process and learning style

Teaching and learning process goes hand in hand, in fact, the process of learning and teaching fulfills the aim of education (Rao and Reddy 1992). The more efficient this processes the better that aim of education is achieved.

Therefore, teaching is not effective if the students have not learnt, individual students may be better suited to learning in a particular way, using distinctive models for thinking, relating and creating the motion of student having particular learning style has implication for teaching strategies, because preferred mode of input and output vary from one individual to another, it is critical that teachers use the range of teaching strategies to effectively meet the need of individual learners.

It is also important to understand the learning process and style of individual students. Adia shumsky Eric 2001 describes individual student’s differences in learning style of students. Amongst several types of differences, the main differences are:

- Knowledge
- Academic capabilities
- Approach to learning
- Social background

The knowledge and academic capabilities of students are normally distributed with a small to large variations. It is very important for the teacher to know the average and variation of the qualities (Cano 1989). The wider variation in the student’s attitudes and capabilities, the tougher becomes the task of the teacher.

Torrence and Rockken stein (1986) in one of their study have discussed several types of learning process according to Mccarthy (1980), there are four type of learning style.

- Innovative learning style
- Common sense learning style
- Analytic learning style
- Dynamic learning style

ACHIEVEMENT IN CHEMISTRY

Chemistry teaching can only be result-oriented when students are willing and the teachers are favourably disposed, using the appropriate methods and resources in teaching the students with current increase in scientific knowledge in the world over, much demand is placed, and emphasis is laid on the teacher and learning of science. Education has remained a social process in capacity building and maintenance of society for decades. It is a weapon for acquiring skills, relevant knowledge and habits for surviving in the changing world.

Unfortunately, the major problem identified in the Nigerian UBE system lies in the automatic promotion that is 100% promotion and transition for 9years. This indeed is a mockery of any form of evaluation done at this level and is bound to reflect on the standard of education in no distance future, in particular, the provision for the out of school population has remained obscure since eight years of its introduction and inception.

The expanded vision of UBE comprises the universalizing of access and promotion of equity. Focusing on learning and enhancing the environment of learning and strengthening partnerships. However, the achievement of students in chemistry has been a great concern to the society.

Awokoya (1975), Fufunwa (1980), both agreed in different researches that we live in a world where science and technology have become an integral part of the world culture, therefore for any nation to be relevant, it must not over look the importance of chemistry in her educational system.

Accordingly, the observed poor achievement in chemistry has been a matter of serious concern to all well-meaning educators –student’s poor achievement in chemistry over the years has been attributed to the fact that the subject is difficult.

In the same view, student’s achievement in chemistry test has been observed to vary from person to person and from school to school.

RESEARCH METHODOLOGY

The type of design used for this study was an experimental design.

Population of the study

The population for the study was based on some selected secondary school in Ijebu-Ode and Odogbolu local government area of Ogun State. The research work involved (one hundred and twenty four) students in (four) senior secondary school and all their chemistry teachers.

Samples and sampling techniques

The sampling technique used for this research is random sampling. Samples for this study were taken from senior secondary schools in Ijebu-Ode and Odogbolu local government Area. Senior secondary school students from
Table 1. Showing number of students and gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>76</td>
<td>61.3</td>
</tr>
<tr>
<td>Female</td>
<td>48</td>
<td>38.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

four secondary schools were selected.

Research instrument

For the purpose of this research, two instruments were used viz:
• Teacher’s attitude towards chemistry teaching scale (TATCTS)
• Chemistry achievement Test (CAT)

Validity and reliability of the instruments

The content of the “problem-solving Technique Procedure” (PSTP) was checked and validated by five chemistry education lecturers who certified the procedure to be adequate for teaching steps and strategies of problem solving as given by Ashmore et al. (1979). Experts in Science education helped to vet the 20-item attitude scale.

They also helped to identify the positive and negative statements and to ascertain the reliability of the instrument, the chemistry achievement Test (CAT) was trial tested on SSS II chemistry students from a school not participating in the research.

Using Kuder-Richardson the result was found to be 0.672. The teacher’s attitude towards chemistry teaching scale (TATCTS) was also administered to (fourteen) chemistry teachers in the four secondary schools which were not part of the research to ensure consistency in its reliability, the result is 0.542 using Cronbach Alpha (Kuder-Richardson 21).

Research procedure

The achievement tests and questionnaire were distributed in good and conducive atmosphere. Due permission was from the schools principals before distribution and with the assistance of the chemistry teachers. The students answered the test questions individually under the supervision of the researcher and subject teachers.

All the instruments were collected back from the respondents immediately after completion, and the achievement tests were scored on the correct options chosen from the multiple choice questions letter A-E for the final analysis.

Data analysis

The research involved two groups of (one hundred and ten students) and (fourteen) chemistry teachers. The data collected were analyzed using independent samples T-test, analysis of variance (ANOVA) and Pearson product moment correlation.

RESULTS AND DISCUSSION

Distribution of the subject based on gender

Information available in table 1 show that 61.3% of the sample were males representing 76 students the remaining 48 students were females representing 38.7%.

The information in table 2 indicate that the average score of the distribution is 7.65, half of the scores lies above and below 8.0 which is the median. The modal score is 8.0 indicating that greater number of students scored 8. From the low mean score and low standard deviation, it would be concluded that mastery was not attained which led to poor performance.

Testing the research hypothesis

Hypothesis 1: (H01): There is no significant relationship between teacher’s attitude and students academic achievement in SSS chemistry. This hypothesis was tested with Pearson product moment correlation and the result of analysis is presented in Table 3.

Result of analysis showed that the correlation coefficient (r) is significant at P< 0.05 (r = - .340 P< 0.05). This indicates that there is a significant relationship between teacher’s attitude towards chemistry and students’ achievement in the subject. So the null hypothesis is rejected.

Hypothesis 2 (H02): There is no significant difference between the mean chemistry achievement scores of male and female students in SSS chemistry. This hypothesis was tested statistics. The result of the analysis is presented in Table 4.

From the summary table above, result shows that there is a significant difference in the mean chemistry achievement scores of SSS male and female students (t = 2.018, df = 122, P< .05). This means that gender has effect on the achievement of students in SSS chemistry and the null hypothesis is
Table 2. Statistics of the achievement test scores

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Dev.</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.65</td>
<td>8.0</td>
<td>8.0</td>
<td>1.98</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Table 3. Summary of Pearson product moment correlation showing the relationship between teacher’s attitude and student’s academic achievement in SSS chemistry.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>R</th>
<th>Sig</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers Attitude</td>
<td>50</td>
<td>60</td>
<td>9.78</td>
<td>.340</td>
<td>.16</td>
<td>Significance</td>
</tr>
<tr>
<td>Achievement</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Two tailed T-test of Difference between means of male and female SSS students in chemistry.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>S/D</th>
<th>D/F</th>
<th>Std. Error</th>
<th>T</th>
<th>Sig</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>76</td>
<td>7.93</td>
<td>2.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. ANOVA summary of the achievement of male and female students in SSS chemistry.

<table>
<thead>
<tr>
<th>Sources</th>
<th>Sum of Squares</th>
<th>D/F</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between GRPS</td>
<td>15.501</td>
<td>1</td>
<td>15.501</td>
<td>4.071</td>
<td>0.046</td>
</tr>
<tr>
<td>Within GRPS</td>
<td>464.588</td>
<td>122</td>
<td>3.808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>480</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data on table 5, shows that there is a significant in the achievement of male and female students in SSS chemistry (F (1,122) = 4.071, P < 0.05). Based on this finding the null hypothesis of no significant different is rejected.

Summary of findings

Based on the two hypotheses, the following findings were made:

- There is a significant relationship between the teacher’s attitude and student’s academic achievement in SSS chemistry.
- There is a significant difference in the mean chemistry achievement scores of male and female students in SSS chemistry.

CONCLUSION AND RECOMMENDATION

This study based on the relationship between teachers attitude and students academic achievement in chemistry. One hundred and ten SSS chemistry students, 14 chemistry teachers from selected secondary schools in Ijebu-Ode and Odogbolu Local Government area in Ogun State participated in this research. Two research hypothesis and two research questions were formulated and the instruments used for the collection of data were: Teachers’ attitude towards chemistry teaching achievement Test (TACT).

The data collected from the instruments were analyzed using Pearson Product moment correlation, T – Test and analysis of variance. The first null hypothesis which stated that there is no significant relationship between teachers’ attitude and student’s academic achievement in SSS chemistry has been rejected. The result of analysis showed that the correlation co efficient (r) is significant at P<0.05 (r = -.340, P<0.05). This is indicates that there is a significant relationship between teacher’s attitude towards chemistry and students academic achievement in the subjects.

The second null hypothesis which states that there is no significant difference between the mean chemistry achievement scores of males and female students in SSS chemistry has also been rejected. From the summary on Table 5 above, showed that there is a significant difference in the mean chemistry achievement scores of SSS male and female students (t = 2.018, df = 122, P<.05). This means that gender has effect on the achievement of students in SSS chemistry. From the outcome of the (TACTS) scores and (CAT) scores, it is
therefore noted that, the achievement of students in chemistry depends on the attitude of teaching display by the teachers; finally in the same vein, Onocha (1985) reported in one of his findings that teachers’ attitude towards science is a significant predictor of learner’s achievement as well as their attitude.

Conclusion

Arising from the findings of this study, it is implied that attitude of teachers teaching chemistry in our senior secondary schools have significant effect on the achievement of students in chemistry as one of the science subjects. Students should be encouraged that chemistry as a subject is very promising, simple and easy to understand. It must be realized that, if teachers show positive attitude towards the teaching of chemistry, the achievement of students will be better than what we have now in our secondary schools.

If Government and other stakeholders in education sector could improve on the learning environment of students and working conditions of the teachers and other incentives for science teachers which will boost the morale of the teachers towards teaching, is most likely that the students’ achievement in chemistry will be highly enhanced.

Recommendation

Based on the findings of this study, it is recommended that: the teachers must develop positive relationship with students and stress classroom activities, which will involve active teaching learning process and student’s participation in the class. Teachers should develop positive attitude towards the teaching of chemistry knowing that chemistry as a subject, if not taught with all enthusiasm could barely be regarded as being abstract.

Teachers should be encouraged and motivated to acquired higher qualifications by the Government. The ministry of Education should develop policy that mandates chemistry and other science subjects that involved calculation to be taught with competence, ability, resourcefulness and ingenuity to efficiently utilize the appropriate language, methodology and available instructional materials to bring out the best from learners in terms of academic achievement.

Suggestion

This research has looked into the relationship between teacher’s attitude and student’s academic achievement in chemistry. This study was limited to only two Local Government Area of Ogun State. Further research can be carried out among other Local Government Areas, and even other states in the Federation. This suggestion is because the findings of these proposed studies may help in identifying other factors affecting the Educational status in both the state and the whole federation.

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