# Effects of Teacher-Student Relationship on Student Academic Achievement in Senior Secondary School in Mubi Education Zone, Adamawa State

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*Abstract -* The study investigate the influence of teacher-student relationship on student academic achievement in senior secondary schools in Mubi Zone, Adamawa state. It examines the effect of interaction between teacher and students in the classroom setting on academic achievement of senior secondary school students and assesses the effects of non-cordial relationship between the teachers-students on the academic achievement of senior secondary school students. The study further evaluate whether attitudes portrayed by teachers which affect academic achievement of senior secondary school students with a view of fostering students' academic success as a result of teacher-student relationship among the senior secondary school students. The study adopted a descriptive survey research design and the population of the study comprises of selected senior secondary schoolteachers and students in Mubi zone. The sample size for the study comprises of 370senior secondary school teachers and students. The sample for this study was selected using a simple random sampling technique. The research instruments titled 'Teacher-Student Relationship Questionnaire (TSRQ) and 'Students' Academic Achievement in Social Studies Proforma (SAASSP) was used to collect data for the study. The data obtained were analyzed using multiple regressions statistics techniques. The results showed that interaction between teacher and students in the classroom setting, non-cordial relationship between the teachers-students and attitudes portrayed by teachers have significant effect on academic achievement of senior secondary school students in Mubi Education Zone.

*Keywords:* Teacher, Student, Relationship, Academic Achievement.

## I. Introduction

The student-teacher relationship is one of the most important features in the context of learning. It is also one of the factors affecting student-teacher development, school engagement and academic motivation. Student-teacher relationships form the basis of the social context in which learning takes place (Furrer, Marchand & Kindermann, 2019). Student-teacher interactions are not only influenced by a number of aspects including gender, but in turn also influence a student's academic achievement and behaviour (Roorda, Koomen, Spilt, & Oort, 2019). Supportive and positive relationships between teacher and students ultimately promote a sense of school belonging and encourage students to participate cooperatively in classroom activities (Hughes & Chen, 2022).

When there is no student-teacher relationship, it is overtly characterized by conflict which may be damaging to students, more damaging than simply a lack of close teacher-student relationships (Ma, Liu, and Li (2022)). That is why Spilt, Hughes, Wu and Kwok (2022) argue that conflicting relationships with teachers cause feelings of distress and insecurity in students, thereby restricting their ability to concentrate on learning. Students with more conflictual teacher-student relationships had insufficient down-regulation of cortisol levels, meaning they were constantly more stressed than students with good teacher-student relationships (Magro, Nivison, Englund & Roisman 2023). Educators' relationships with students are equally beneficial to teachers, with research showing that good teacher-student relationships are positively correlated to teachers' job satisfaction and effectiveness (Day & Gu, 2022; Johnston, Wildy & Shand, 2022). Negative teacher-student relationships are a common source of teacher stress and burnout (Chang, 2019; Spilt et al., 2019). This is understandable when one considers the emotional labour that is part of teachers' work, especially in relation to dealing with disruptive student behaviour (Chang, 2019). This could eventually lead to brain drain in the system.

Student-teacher relationships have a great impact on students' attitudes towards achievement. It is also obvious that if students are comfortable with their teachers and the school environment, positive relationships will be easily developed, which might benefit their social behaviors and skills. This is in

consonance with Koen (2018)'s statement, that the development of interpersonal relationships, either between student and teacher or between students and students, is simply the keystone in building what individual learners want to achieve in both the classroom and life itself. From the above it can be deduced that student-teacher relationships are the emotional bond that exists between teachers and students in school (Spilt, et al., 2019). Both students and teachers have the power to shape and change the quality of these relationships (Sabol & Pianta, 2022). In the same vein Nugent (2021) suggests that by creating healthy relationships, teachers can motivate students during the learning process, which is one of the main objectives in a teacher's practice. To make relationships between teachers and students easier, teachers must be aware of the students' emotional and academic needs and must be able to work with it.

Student-teacher relationships have a great impact on students' attitudes towards achievement. It is also obvious that if students are comfortable with their teachers and the school environment, positive relationships will be easily developed, which might benefit their social behaviours and skills. This is in consonance with Koen (2018)'s statement, that the development of interpersonal relationships, either between student and teacher or between students and students, is simply the keystone in building what individual learners want to achieve in both the classroom and life itself. From the above it can be deduced that student-teacher relationships are the emotional bond that exists between teachers and students in school. Both students and teachers have the power to shape and change the quality of these relationships (Sabol & Pianta, 2022). In the same vein Nugent (2021) suggests that by creating healthy relationships, teachers can motivate students during the learning process, which is one of the main objectives in a teacher's practice. To make relationships between teachers and students easier, teachers must be aware of the students' emotional and academic needs and must be able to work with it.

## II. Problem Statement

School academic system in Mubi educational zone has been compounded with poor academic achievement, formation of bad gangs by Students, perpetual hatred to teachers, and neglect of some subjects which then gave rise to serious problems to the realization of educational objectives. It is unfortunate that a good number of Students have lost virtues of good behaviour since their teachers are no longer showing the love, care and affection.

In the light of the above problems, the researcher therefore intends to carry out this study in order to emerge with some empirical data relating to the extent to which poor

teacher – Student relationship has contributed to the non-effective academic achievement of students in Mubi Education zone which consist of five (5) local governments.

From the above, it can be deduced that student-teacher relationships are the emotional bond that exists between teachers and students in school. Both students and teachers have the power to shape and change the quality of these relationships (Sabol & Pianta, 2022). In the same vein, Nugent (2009) suggested that by creating healthy relationships, teachers can motivate students during the learning process, which is one of the main objectives in a teacher's practice. To make relationships between teachers and students easier, teachers must be aware of the students' emotional and academic needs and must be able to work with it.

Based on the foregoing problem statement, the extent of which success in the relationship between teacher-student in Mubi educational zone will improve achievement in academic excellent.

## III. The objectives of the Study

The aim and objective of the study is to examine effects of teacher – students' relationship on the academic achievement of senior secondary school in Mubi educational zone. The specific objectives of the study are to:

i. Examine the effect of interaction between teacher and students in the classroom setting on academic achievement of senior secondary school students in Mubi Education Zone.
ii. Assess the effects of non-cordial relationship between the teachers-students on the academic achievement of senior secondary school students in Mubi Education Zone.
iii. Evaluate whether attitudes portrayed by teachers which affect academic achievement of senior secondary school students in Mubi Education Zone.

## IV. Research questions for the Study

The following questions were formulated to guide the study:

i. What is the effect of interaction between teacher and students in the classroom setting on academic achievement of senior secondary school students in Mubi Education Zone?
ii. How does non-cordial relationship between the teachers and students affect the academic achievement of senior secondary school students in Mubi Education Zone?
iii. To what extent does attitude portrayed by teachers affect the good relationship between them and students in Mubi Education Zone?

## V. Hypotheses of the Study

HO$_1$: there is no significant effect of interaction between teacher and students in the classroom setting on academic achievement of senior secondary school students in Mubi Education Zone.

HO$_2$: there is no significant effect of non-cordial relationship between the teachers and students on academic achievement of senior secondary school students in Mubi Education Zone.

HO$_3$: there is no significant effect of attitude portrayed by teachers on academic achievement of senior secondary school students in Mubi Education Zone.

## VI. Literature Review

The academic achievement of senior secondary school students in Nigeria has become a great concern to all education stakeholders in recent time. This is supported by Adeyemi and Adeyemi (2022) who stated that there has been a remarkable record of failure in public examinations, especially in basic subjects such as English and Mathematics. The annual release of the West African Examinations Council (WAEC) results has contributed to the public's condemnation of the entire education system in Nigeria because of the rate of graduates with poor results. According to the perception of general public, it is questionable whether teachers in public secondary schools are effective. The most important factor is the effectiveness of schools, and this is dependent on the student teacher relationship, and the quality and competence of teachers to teach effectively (Adeyemi, & Bolarinwa, 2022).

Teachers have been said to play a crucial role in academic achievement and educational attainment, because the teacher is ultimately responsible for translating policy into action and principles based on practice during interaction with the students, (Aina 2019). The unfortunate reality is observation as shown in WAEC results in many states of Nigeria that the students perform below average, especially in English and Mathematics. This is supported by Ayeni (2014) that only about 23% of students who sat for WAEC between 2010 and 2014 obtained credit level passes in five subjects and above (including English Language and Mathematics) in Nigeria. This is not far from the analysis of Berman-Young (2020) that in 2020, WAEC Examination recorded that only 649,156 candidates (38.81%) of the 1,677,224 candidates that enrolled for the examination obtained 5 credit passes in Nigeria. Besides, the results of students who sat for WAEC in various states in the period of 2012 to 2017 clearly showed that the academic performance of secondary school students is still below average (Bamikole, 2021).

The above is in line with the observations of Adeyemi and Adeyemi (2022) and Onaolapo (2020) that despite government's huge investment in public education, its output in terms of quality of students is unequal with government expenditure. One aspect that might have an impact on the poor academic achievement of students in public senior secondary schools may be connected with student-teacher relationships. In other words, the perceived poor student-teacher relationships in terms of lack of vibrant classroom engagement and motivation for learners could be responsible for the observed poor achievement of secondary school students in Nigeria.

Poor academic achievement according to Arokoyu (2019) is a achievement that is adjudged by the examiner /teste and some other significant as falling below an expected standard. Poor academic achievement has been observed in senior secondary school students (Allen et al., 2022). Arokoyu (2019) examine the perception of students and teachers on the causes of poor academic achievement as any achievement among senior secondary school students. Akinfe, Olofinniyi and Fashiku (2021) submit that the search for the causations of poor academic achievement is unending and some of the factors they put forward are: Motivational orientation, self-esteem, / self-efficacy, emotional problems, study habits, teacher's consultation and poor interpersonal relationships.

There is no doubt that when good and amiable relationships exist between students and their teachers, this will enable students to develop sense of belonging and a kind of free mind to consult and interact with their teachers at any point without fear or intimidation. This is why student engagement and motivation respectively, as tools for teacher-student relationships, is an antidote that could instigate students' interest and positive feelings about school, achievement and their academic performance (Hughes, Luo, Kwok, & Loyd, 2022).

## VII. Effect of Teacher-Student Relationships

A good and supportive relationship is needed to create safe environments and give students confidence to work without pressure and become motivated to learn. Specifically, when students are exposed to positive emotional stimuli, they are better able to recall newly learned information (Nielson & Lorbe, 2021). Students feel motivated and stimulated to learn and actively collaborate with the teachers when the classroom is running in a safe and supportive environment. Thus, the teacher's role is vital to the effect of the language learning.

The relationship between teachers and students affects the quality of students' motivation to learn and classroom learning experiences. According to Davis (2021), operating as socializing agents, teachers can influence students' social and

intellectual experiences via their abilities to instill values in children such as the motivation to learn; by providing classroom contexts that stimulate students' motivation and learning; by addressing students' need to belong; and by serving a regulatory function for the development of emotional, behavioral, and academic skills. Moreover, supportive relationships with teachers may play an important developmental role during the transition to and through middle school. However, developing relationships with an early adolescent presents unique challenges to middle school teacher.

It is important to have a teacher who cares for their students' needs and strengths, and who holds a supportive relationship with their students, giving them the same chances and opportunities to participate in the learning process. These opportunities make students feel comfortable and free to interact in the classroom and improve their academic skills.

A teacher who cares about their students transmits knowledge effectively and has a good interaction with them. In addition, he/she also provides the students the opportunity to create an emotional link. Allen, et al (2022) suggests that "improving the quality of teacher-student interactions within the classroom depends upon a solid understanding of the nature of effective teaching for adolescents. Allen et al. (2022) who studied a number of descriptions of classroom environments or quality teaching discussed in the educational and developmental literatures listing factors likely to be related to student learning.

Allen also notes that Hamre and Pianta (2022) developed an assessment approach that organizes features of teacher-student interactions into three major domains: emotional supports, classroom organization, and instructional supports. The emotional link makes the students feel comfortable in front of the teacher and class, which is essential the student's success or failure. Classroom organization is the way teachers manage the classroom in order to achieve several goals, first of all classroom goals, which encompasses the way that teachers physically arrange the classroom for learning. Instructional supports are important to help teachers to provide the best strategies, support which will better help them to differentiate instruction and meet all students' needs and promote their engagement in the learning process.

Normally, teachers have an important role and effect on students. Students' successes and failures can be directly linked or attributed to a teacher's effectiveness and how he or she leads and manages his or her classroom and how he or she communicates and motivates students to learn. When students have supportive relationships with their teacher, they feel more motivated and engaged in the learning process. A caring teacher creates a good classroom environment to his students to enable the students to pay attention to his teaching and respond to all the learning activities.

Spilt, Hughes, Wu, and Kwok (2022) found that when students consider their classroom work to be meaningful, have the opportunity to demonstrate their competence, and believe their input is vital to the course, they are motivated to communicate with their instructors for relational, functional, and participatory reasons. Interested and involved students learn better. "Students with high interest perceive a content area to be important, are active and involved in the subject, and feel knowledgeable in the subject matter. According to Klem and Connell (2021). Interest is often triggered in the moment by certain environmental factors (e.g., teacher behaviour) and can be characterized from the perspective of the cause (the conditions that induce interest) or from the standpoint of the person who is interested. Nurmin (2022) noted that students who experience heightened emotional interest are pulled toward a content area because they are energized, excited, and emotionally engaged by the material". It is crucial to be inserted in a safe environment where students can feel engaged and motivated to learn, share their experiences, and demonstrate their competence.

Teacher beliefs, behaviours, and actions also affect teacher-student relationships. A considerable body of research indicates that teachers who hold high expectations of students in terms of their levels of achievement and their social behaviours in the classroom can affect student motivation and engagement (Pianta, 2022). Classroom structure is important to prevent classroom misbehaviour, so it is important to create a good environment capable of enhancing students' learning process.

A good classroom environment is important because the social-emotional climate a teacher establishes with students will provide opportunities to see themselves as capable, worthy and confident members of the classroom community and make them feel part of the learning process. Ryan and Deci (2021) stated that the classroom environment consists of three overarching dimensions: the ability for students to develop relationship with their instructors and peers, the extent to which students engage in learning activities, and the general structure and order of the classroom provided by the instructor (Myers & Claus, 2012).

Nwagbo and Okoro (2021) carry out research on the effect of interaction patterns on achievement of students in senior secondary school. Three objectives and three research questions will guided the work. The study will be conducted in Mubi educational zone, Adamawa State. Five schools were drawn through purposive random sampling techniques. The

instrument for data collection is the achievement test on student-teacher relationship (ATSTR). Five intact classes was used for the study. The samples consist of senior secondary school students from the educational zone. Means and standard deviations were used to answer the research questions while ANCOVA was used to test the null hypotheses at the 0.5 level of significance.

In the same line of thinking, Ma, Liu, and Li (2022) proposed that effective student-teacher relationships encourage greater confidence and classroom engagement in much the same manner as sensitive parenting encourages a greater sense of security and confidence. Students need the confidence and motivation to learn, which can be stimulated by the relationship they hold with their teachers. Students also perform well when they feel that the teacher is passionate about what they are teaching and pass security and confidence to the students. When teachers believe in students' ability to succeed it motivates them because students don't want to let them down but it also makes students believe that they are more capable than they even imagined.

**Effects on Student Academic Achievement**

Johnston, Wildy and Shand (2022) conducted a study using 25 grade 10 students across 3 secondary schools in Australia. They collected data through 100 interviews and 175 classroom observations. Researchers collected qualitative data centered on the main research question: "How do students experience their teachers' expectations for their academic achievement?" Analysis of the data revealed that students acted in ways that improved their academic performance when their teachers communicated high expectations of them. Furthermore, when teachers were interested in personally connecting with students and showed care, students reciprocated by developing positive relationships with those teachers. Students reflected on this relationship as having a positive impact on their academic performance.

Ma, Liu, and Li (2022) conducted a quantitative study to examine the effects of a teacher student relationship on learning outcomes. The study included 332 fourth graders and 321 eleventh graders from China. The study measured student perceived teacher student relationship, curriculum based measures of achievement and student perceived parental involvement. Students' academic achievement was measured using their standardized test scores. The results of the study revealed that teacher student relationship and student academic achievement correlated positively, in both primary and secondary schools.

Magro, Nivison, Englund and Roisman (2023) conducted a quantitative research study. This study looked at the extent of which relationships with early caregivers and early

elementary school teachers had on a student's academic performance at 16 years old. The study used longitudinal research to follow students through their academic career. They examined the extent to which a child's primary care experience (3 to 42 months) with their caregivers and their relationships with their elementary school teachers (K-6th grade) were associated with their academic achievement at age 16. The results found that three out of the four indicators of a strong teacher student relationship were associated with academic achievement in the medium range. Evaluated alongside maternal sensitivity, relationships with adult figures in a child's life are associated with academic achievement later in life.

Semeraro, Giofre, Coppola, Lucangeli and Cassibba (2020) conducted a study o cognitive (mathematical ability) and noncognitive (anxiety) effects on performance in a math class were examined as compared to the teacher student relationship. A sample of 219 students was evaluated when they entered sixth grade. General cognitive ability was measured through the administration of four timed standardized tests. The topics were: series completion, odd-one-out, matrices and topology. Math anxiety was measured through three questionnaires that measured attitude towards math learning. Teacher student relationship quality was measured from a student perception based questionnaire. Lastly, mathematical achievement was measure through the administration of a standardized test. While the results showed that cognitive ability was the strongest predictor of mathematics achievement, the student teacher relationship was found to have an indirect relationship through alleviating math anxiety. The role of the student teacher relationship within math learning is thought to play a role in mediating anxiety which aids learning.

## VIII. Theoretical Framework

This study is rooted in the Attachment Theory. The theory is relevant to this study because it focuses on the relationships between two or more people, particularly long-term relationships such as those between parents and children and between teacher and students (Cherry, 2018). This theory was developed by one of the foremost psychologists, namely John Bowlby in 1958, and published in the trilogy Attachment and Loss in 1969 (Bowlby, 1969). He describes attachment as a "lasting psychological connectedness between human beings and that it is a kind of behavior focused to establish and maintain closeness and contact with an adult and figure who is sensible and responsive to the child needs (Bowlby, 1958; Cherry, 2018). The theory, according to Bowlby (1969) and Krstic (2020), argues that when adults provide emotional support in a predictable, consistent, and safe environment, it helps children to be more self-reliant and learn better, because

they are sure that an adult will guide and help them. This is supported by Krstic (2020) that when children feel safe and comfortable, complementary exploratory systems, which encourage them to explore, are activated.

The theory proposes a motivational system that guides relational behaviour (Riley, 2012). Student-teacher relationships can also be viewed from a motivational perspective, in which students benefit not only from their perception of caring teachers, but also from the structure that is provided by the classroom environment, and the support that teachers provide in response to students' needs (Davis, 2013). It cuts across various forms of organizations and has produced many interesting findings, including research on student-teacher relationships (Shaver & Mikulincer, 2019; Riley, 2012). Attachment is a theoretical framework used by researchers to better understand how children develop positive working relationships with their teachers (DeTeso, 2019). The perspective of attachment theory underpinning teacher-student relationships argues that students' perception of teacher nurturing and caring can provide a solid foundation for students' academic performance and general social growth (Roorda, Koomen, Spilt, & Oort, 2019; Berman-Young, 2014).

## IX. Methodology

### 9.1 Design of the study

The design for this research work was basically a descriptive survey research which was aimed investigating the effect of teacher –students' relationship on academic achievement in senior secondary school students of Mubi educational zone.

Nworgu (2006) viewed survey research as one in which a group of people or items is studied by collecting and analysing data from only a few people or items considered to be the sample of the entire group. He noted that descriptive survey studies aim at collecting data on and describing in a systematic manner the characteristics, features or facts about a given population.

### 9.2 Population of the study

The population of the study includes; the students and teachers from five (5) selected senior secondary schools of Mubi educational zone, Adamawa state. Thus Government Secondary School Mubi, Government Secondary School Maiha, Government Senior Secondary School Michika, Government Secondary School Madagali and Government Day Secondary School Mubi. Therefore, the population of the study consisted of 9798 students and teachers of the five selected secondary schools in Mubi zone, Adamawa state.

### 9.3 Sample size and sampling technique

The sample size of the study is 370 which consist of both students and teachers from the five (5) selected senior secondary schools determine by the sample size table of Krejcie and Morgan (1970). The sampling technique used for study was simple random sampling technique. This enables the researcher to carry out one intensive observation of the variables necessary for verification of the factors assumed.

### 9.4 Instrument for data collection

The instrument to be used for this research work was questionnaire named "Effect of Teachers-Students Relationship on Academic Achievement of Senior Secondary School (ETSRAASSS)", was design by the researcher along with the variables under study and the question it contains was drawn from the research question. The questionnaires contain two Sections A and B, where A is the bio-data of the respondents and B is the information on the research topic. Therefore, the research instruments titled 'Teacher-Student Relationship Questionnaire (TSRQ) and 'Students' Academic Achievement in Social Studies Proforma (SAASSP) was used to collect data for the study.

### 9.5 Administration of the instrument

A letter of introduction will be distributed to all the selected schools by the researcher. The administration of the questionnaire will be done by the researcher and the assistant researchers. The researchers will distribute the questionnaires to the respondents. Adequate time will be given to the respondents to respond to the questionnaires. Completed questionnaires will be collected on the spot.

### 9.6 Validation and reliability of the instrument

The face and content validity of the instrument will be carryout by other experts in the field of Education. The corrections pointed out were effected in the final draft of the questionnaire. Abiri (2006) maintained that validity is the extent at which the contents of a test correspond to the subject matters and their associated behavioural outcomes. 30 questionnaires were developed and validated through pilot testing and administered to the selected schools. The researcher personally train the research assistants visit the respondents at all level of the research; The data collected was tabulated and analysed by using chi-square and Pearson's product moment coefficient of correlation (r).

### 9.7 Method of Data Analysis

Descriptive statistics and multiple regression analysis were used in analyzing the collected data. Simple percentage was used to analyze the demographic aspect of questionnaire,

while multiple regression was used to test hypothesis of the study.

### X. Result and Discussion

The purpose of this research was to examine the effect of teacher- student relationship on the academic achievement of student in secondary schools in Mubi Education Zone, Adamawa state. The questionnaire was used as instrument for collecting data. Out of the 370 questionnaires that were distributed, a total number of 355 were returned valid and completed. The results presented in this section.

### 10.1 Reliability Test

Reliability analysis allows examination of the properties of measurement scales and the variables making them up. The reliability analysis procedure calculates a number of commonly used measures of scale reliability and provides information on the relationship between individual variables in the scale. This study carried out a reliability analysis to establish the reliability of the independent variables in the study. As indicated in Table 1. Cronbach's Alpha value of the variables on Table 1 are as follow; Interaction between teacher and students in the classroom setting = 0.883, Non-cordial relationship between the teachers-students = 0.853, Attitude portrayed by teachers = 0.792 and Academic achievement of senior secondary school students = 0.861. The Variable-Total statistics in Table 1, reveal that all the variables had a measure of over 0.6, that means all the variables are reliable.

**Table 1: Reliability Result**

| S/N | Variables | Number of items | Cronbach alpha |
|---|---|---|---|
| 1 | Interaction between teacher and students in the classroom setting | 6 | 0.883 |
| 2 | Non-cordial relationship between the teachers-students | 5 | 0.853 |
| 3 | Attitude portrayed by teachers | 6 | 0.792 |
| 4 | Academic achievement of senior secondary school students | 6 | 0.861 |

### 10.2 Linear Regression

The researcher conducted a linear regression analysis so as to test relationship among variables. The research applied the statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions for the study. Table 2 provides the summary of the regression model applied in this study.

Coefficient of determination explains the extent to which changes in dependent variable can be explained by the change in the independent variables or the percentage of the variation in the dependent variable (academic achievement) that is explained by all the three dimensions of independent variables (teacher- student relationship). According to the regression model applied in this study on Table 2, $R^2$ value recorded 0.650 which implies that the dimesions of independent variables studied explain 65% of the effect of teachers – student relationship dimensions on academic achievement of senior secondary in Mubi zone. Other variables not studied in this study contributed 35% variability in academic achievement of senior secondary in Mubi zone. Durbin Watson is between 1.5 and 2.5, for this study it can be assume that the value is within the range of critical criterion that is 1.944 as shown in Table 2 indicates that there is no violation of auto colloretion in this study.

**Table 2:  Test of Hypotheses Coefficients[a]**

| | Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.290 | 0.763 | | 4.309 | 0.000 |
| | TSRIBTS | 0.173 | 0.039 | 0.194 | 4.466 | 0.000 |
| | TSRNCRBTS | 0.288 | 0.055 | 0.263 | 5.253 | 0.000 |
| | APBT | 0.472 | 0.047 | 0.454 | 10.028 | 0.000 |
| | R | 0.806 | | | | |
| | R Square | 0.650 | | | | |
| | Adjusted R Square | 0.647 | | | | |
| | Durbin-Watson | 1.944 | | | | |
| | F | 217.424 | | | | |
| | Sig | 0.000b | | | | |

a. Dependent Variable: AASSS

*Note:* TSRIBTS = teachers-student relationship in terms interaction between teacher and students in the classroom setting, TSRNCRBTS = teachers-student relationship in terms of non-cordial relationship between the teachers and students, APBT = teachers-student relationship in terms of attitude portrayed by teachers.

The report or F statistics on Table 2 indicated that the overall significance of the regression model applied for this study, and the result shows that, $p < 0.05$ (Sig. =0.00) and therefore our model is significant. The F value is 217.424 and the significant level is 0.000.

## 10.3 $H0_1$: there is no significant effect of interaction between teacher and students in the classroom setting on academic achievement of senior secondary school students in Mubi Education Zone

In order to test this research hypothesis 1, interaction between teacher and students in the classroom setting was cross tabulated with their academic achievement in senior secondary schools in Mubi education zone. The multiple regression value was also obtained to examine its significance or otherwise. The result is presented in Table 2.

Table 2 shows the coefficient of the variables which indicated that of interaction between teacher and students in the classroom setting has $\beta = 0.173$, $t = 4.466$, P=0.000, this means interaction between teacher and students in the classroom setting has significant effect on academic achievement of senior secondary school students in Mubi Education Zone, null hypothesis rejected and accept alternate since the calculated value is less 0.005 significance level.

## 10.4 $HO_2$: there is no significant effect of non-cordial relationship between the teachers and students on academic achievement of senior secondary school students in Mubi Education Zone

In order to test this research hypothesis 2, non-cordial relationship between the teachers and students was cross tabulated with their academic achievement in senior secondary schools in Mubi education zone. The multiple regression value for hypothesis 2 was obtained to examine its significance or otherwise. The result is presented in Table 2.

Table 2 shows the coefficient of the variables which indicated that of non-cordial relationship between the teachers and students has $\beta = 0.288$, $t = 5.253$, P = 0.000, this means non-cordial relationship between the teachers and students has significant effect on academic achievement of senior secondary school students in Mubi Education Zone, null hypothesis rejected and accept alternate since the calculated value is less 0.005 significance level.

## 10.5 $HO_3$: there is no significant effect of attitude portrayed by teachers on academic achievement of senior secondary school students in Mubi Education Zone

In order to test this research hypothesis 3, attitude portrayed by teachers was cross tabulated with their academic achievement in senior secondary schools in Mubi education zone. The multiple regression value was also obtained to examine its significance or otherwise. The result is presented in Table 2.

Table 2 shows the coefficient of the variables which indicated that of attitude portrayed by teachers has $\beta = 0.472$, $t = 10.028$, P=0.000, this means attitude portrayed by teachers has high significant effect on academic achievement of senior secondary school students in Mubi Education Zone, null hypothesis rejected and accept alternate since the calculated value is less 0.005 significance level.

## XI. Discussion of Findings

The findings of hypothesis on of this study shows that interaction between teacher and students in the classroom setting has significant effect on academic achievement of senior secondary school students in Mubi Education Zone. This findings of this study is in line with study of Ma, Liu, and Li (2022) who conducted a quantitative study to examine the effects of a teacher student relationship on learning outcomes.

Also the findings of hypothesis 2 reveal that non-cordial relationship between the teachers and students has significant effect on academic achievement of senior secondary school students in Mubi Education Zone. The finding of this study is consistent with the previous study of Adeyemi and Ajiboye (2022) who affirm significant relationship between non-cordial relationship between the teachers and students.

Finally, the findings of hypothesis 3 reveal that attitude portrayed by teachers has high significant effect on academic achievement of senior secondary school students in Mubi Education Zone. This findings of this study is line with study of Magro, Nivison, Englund and Roisman (2023).

## XII. Conclusion

Most of the senior secondary school students had a cordial relationship with their teachers. Nevertheless, this existing relationship did not translate into good performance of the students as more of the students had a low performance when compared with the percentage of those with average and high level of performance. Therefore, from the outcome of this study, the study concludes that teacher-students relationship had significant impact on students' academic achievement senior secondary school in Mubi education zone.

## XIII. Recommendations

Based on the findings of this study, the following recommendations are proposed to ensure that teacher-student relationship yields the expected outcome in the classrooms.

i. Teachers should be encouraged to maintain a cordial or positive relationship with their students in schools. In addition, they must make deliberate efforts to ensure such positive relationship translates to academic success in their students.

ii. The school authority should emphasize to the learners that the essence of positive teacher students' relationship is to aid their classroom participation and effective learning so as to achieve academic success.

iii. Teachers should be encouraged to always ensure that students gain academically from the classroom relationship with the students. It is important that the evidence of existence of positive relationship be noticed in the academic performance of the students.

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