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Teachers' Academic Qualification as a Predictor of Attitude and Academic Achievement in Geography of Senior Secondary School Students in Adamawa State, Nigeria

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ABSTRACT

The recruitment of unqualified teachers to teach in Nigeria's institutions of learning has been a persistent and age-long problem affecting students' learning. However, it is perplexing to know that the government who made the Nigerian Certificate of Education (NCE) the minimum requirement for entry into the teaching profession has been guilty of recruiting the said unqualified teachers into the educational system. As this problem persist, without a deliberate effort made by the government to address it, this study determines the degree to which teachers' academic qualification predicts students' attitude and academic achievement in Geography in senior secondary schools of Adamawa State. The research design employed was the predictive correlational design. The study, which sampled 400 teachers and 400 students from senior secondary schools in Adamawa State, employed the multistage sampling technique to actualize this. The participating teachers' and students' responses were gathered using the Geography Teachers' Qualification Checklist (GTQC), Students' Attitudinal Scale in Geography (SASIG) and Geography Achievement Test (GAT). Two of the instruments (SASIG, GAT) were validated and trial-tested to obtain the reliability coefficients using Cronbach's Alpha statistic. The SASIG instrument had a reliability coefficient of 0.78 while the GAT instrument indicated a coefficient of 0.77. Frequency count and percentages were used to answer the lone question in the study while the null hypotheses were tested using simple linear regression statistic. The regression statistic showed that teachers' qualifications did predict students' academic achievement and the predictive value was significant. However, students' attitude to Geography was not predicted by teachers' qualification. These results emphasized the need for authorities concerned to strictly recruit qualified graduate teachers of Geography to teach in senior secondary schools in Adamawa State.

Keywords: Teachers qualification, students' attitude and academic achievement, geography

1. INTRODUCTION

Geography is one of the subjects taught in senior secondary schools in Nigeria and Adamawa State in particular. It deals with the study of the earth as the home of man. It provides learners with the knowledge of the world that they live in. Everything we do as human beings on earth revolves around Geography. This makes the knowledge of Geography essential for daily living. Geography does not only deal with the study of the physical environment but goes further to study regional and human settings. Further, it studies spatial interaction and inter-relationships among phenomena located within this natural environment. To elucidate this submission, Filgona, Filgona and Sababa (2017) asserted

that the teaching and learning of Geography in secondary education are not only limited to the acquisition of geographical facts, but also to cultivate in learners certain values and skills such as respect for other people's values, sound judgement, keen observation, accurate measurement, reflective, creative and critical thinking skills. The acquisition of these values and skills will help the learners to cope with the challenges in their daily lives. To actualize these objectives, Geography, therefore, borrows from other disciplines such as natural sciences, social sciences, medicine, technology and arts. This makes the subject vast, and due to the vastness of the subject matter, Ekperi (2018) emphasized that it should be taught by a highly qualified and skilled teacher. This means that the teaching of Geography should be taking very seriously at all levels of education.

The 21st-century teaching and learning support the transmission and the acquisition of knowledge, skills and values with the teacher acting as a facilitator while the learner takes control of his/her learning. This is inbuilt in the constructivist approach to learning which emphasized the need for learning to be learner-focused. All things being equal, the teacher, learner and the instructional materials act in an interactive classroom environment to ensure that learning takes place. Effective teaching should lead to permanent change (positive) in learners' behaviour, measurable in terms of their affective (attitude) or cognitive (academic achievement) components as described in the Blooms taxonomy of educational objectives. However, effective teaching will be difficult to achieve without quality teachers. This demonstrates the prominence of the school teacher in enhancing students' learning outcomes. Learning outcomes measured in terms of attitude and academic achievement could demonstrate learners' academic progress in school. Students' attitudes and academic achievement are two related factors that are intertwined. This is tied to the argument that one affects the other. Adesoji (2002) submits that attitude is central to the achievement of students. In support of this, Walker (2006) found that students have higher achievement with the subject matter when they demonstrate a positive attitude towards it. Whatever the case may be, it shows that the attitude of a student to a particular subject matter could go a long way to determine the student's academic achievement in that subject.

The attitude of students towards a subject matter is an enduring predilection demonstrated by the students towards that subject matter. Ombui (2012) contends that the attitudes of students towards a subject imply their academic performance in the said subject. As defined by Smith (as cited in Afolabi, 2009), attitude is a relatively enduring predisposition to respond in a relatively consistent manner towards a person, object situation or, idea. However, students' attitude in this study is defined in terms of their predisposition or inclination towards the learning of Geography as a secondary school subject. This does not extend to the predisposition of the learner towards the Geography teacher. The attitude of students towards Geography encompasses the cognitive, affective and behavioural components holistically measured by the Students' Attitudinal Scale in Geography (SASIG). This is why Maio, Maio and Haddock (2010) see attitude as having three components: the cognitive (beliefs, thoughts, attributes), affective (feelings, emotions) and behavioural or conative (action, experiences) components.

It is said that everything a man becomes in life, is a product of his/her attitude (Ballah & Okoronka, 2015). This includes the academic achievement of students in Geography as a function of students' attitudes towards Geography. The academic standing of a learner concerning a subject matter is termed as a measure of learner achievement. Terrence and Peters (in Kiamba & Mutua, 2017) added that academic achievement or performance is the consequence of teaching and learning. Stop and Smith (in Kiamba & Mutua, 2017)

define academic achievement as the extent to which a student, teacher, or institution achieved the educational goals. Even though there is no consensus on which aspects of achievement are more important and how it can best be tested; it is commonly measured by examinations or continuous assessment (Kuenzi, 2008). Moreover, there are multiple levels in measuring academic achievement to serve varying purposes; this includes administering formative and summative tests by the teacher to evaluate students' mastery of subject content to provide grades for students and parents (Heubert & Hauser, in Kiamba & Mutua, 2017). In this study, a student's academic achievement is the achievement score obtained in the Geography Achievement Test (GAT) that was administered to measure the learners' cognitive ability in Geography. Arguably, the academic achievement of students is always the primary focus of education and schools, as it is often used by parents as a yardstick to measure successful institutions for admission. However, in the study area, it is disheartening to note that the attitude of students to Geography and their academic achievement in the subject has been plagued by a lot of factors.

In Adamawa State, where this study was conducted; there have been a series of complaints by Geography teachers regarding the declining interest of senior secondary school students in Geography. On graduation from junior secondary school, few students were observed to pick Geography among their choice of subjects offered at the senior secondary level. This problem was compounded by the poor academic achievement of students in the subject. The WAEC Chief Examiners' reports (2014-2018) which indicated that the percentages of secondary school students in Adamawa State with credit passes (A1-C6) in Geography were 38.62%, 40.94%, 36.25%, 24.26% and 35.54% for the year 2014, 2015, 2016, 2017 and 2018 respectively authenticate this assertion. Additionally, students do not show enthusiasm to learn and often, they demonstrate a lacklustre attitude towards the subject. It is common to hear Geography teachers frequently expressed some common sentiments like "students today are difficult to teach for they have lesser understanding and comprehension of concepts learned in Geography". Further, due to the unserious nature of the students towards learning, some teachers said without hesitation that they do not prepare (read) before coming to the class, because as expected, no student will challenge them intellectually. The students on the other hand often complained about the broad nature of Geography and the strategies employed by the teacher as some of the reasons why they find Geography uninteresting (Filgona et al., 2017). Ekperi (2018) took sides with the students stating that students find Geography, especially physical Geography, difficult and uninteresting owing to the teachers' ineffectiveness in arousing their interest in the subject. These complaints, though largely built on sentiments and not empirically tested, can go both ways, however, the question that still lingers is, what could be the actual problems affecting the teaching and learning of Geography in secondary schools of Adamawa State?

Senior secondary schools in Adamawa State are not immune to the problems bedevilling the education system in Nigeria. This has been demonstrated by Filgona, Sababa and Filgona (2016); Suwopoleme, Sababa and Filgona (2016); Filgona et al. (2017) who identified the dearth of instructional materials in Adamawa State's secondary schools and poor instructional approaches to teaching and learning as some of the problems affecting the teaching and learning of Geography. In addition to these reports, undue emphasis on theoretical aspects of Geography by the teachers at the detriment of scientific and experiential approach had made the subject very abstract and uninteresting (Sofowora & Egbedokun, 2010). For teachers to effectively apply

suitable strategies to treat different Geography contents, they must have a good knowledge of teaching methods acquired through teacher training programmes. Under this circumstance, one needs to be qualified or certified to teach. In general, various studies attempt to explain academic success or failure of students from multiple angles involving; family causal factors, as it relates to the parents, personal causal factors of students and academic causal factors with teachers at the centre of it (Diaz, 2003). Similarly, numerous studies have been conducted to explain the factors that contribute to poor students' attitudes to learning and underachievement. Among these factors, the student (Filgona, Sakiyo & Gwany, 2020, Ayotola & Adedeji, 2009; Hemmings et al., 2011; Murayama et al., 2013), teachers (Filgona et al., 2020, Firmender et al., 2014; Hadley & Dorward, 2011), administrator (Filgona, et al. 2020, Kitsantas et al., 2011; Schreiber, 2002) and family (Chiu & Xihua, 2008; Sheldon & Epstein, 2005; Yan & Lin, 2005) were identified. Among these players, however, the society prefers to point all accusing fingers at the teachers for the failure of students in the educational system, forgetting the major player- the government. Even the students, many a time, prefer taking the glory for their good grades but turn around to blame the teachers for their bad grades (Filgona et al., 2017). Okorie (as cited in Nwali, 2014) props Filgona et al.'s (2017) assertion stating that all accusing fingers point toward the teachers for adopting instructor-positioned method (lecture) of teaching which does not encourage active participation of students. This weight placed on the teachers could be very heavy and unjustifiable for them to bear, nevertheless, one may ask, why the emphasis on teachers?

In Nigeria's education system, the teacher appears to be the closest person to the learner and the cynosure of all eyes on whom the implementation or otherwise of the curriculum hinges on (Filgona et al., 2017). A renowned scholar also conceptualized the teacher as the fulcrum about which the entire business of curriculum implementation in school revolves (Okoronka, 2011). Specifically, Adodo (in Jega & Julius, 2018) argued that one key overriding factor for the success of students is the teacher. Teaching and learning activities could be disrupted without teachers because they are at the centre in formulating and organizing effective teaching (Arafah & Sihes, 2015) and are highly essential for a successful operation of the educational system (Obadara, 2005). Teachers are responsible for the crucial educational development of the learners because they partake in formulating and implementing policies that affect them. Teachers are the catalytic agents (someone who causes change) standing in the gap between the students and the subject matter that ensures the permanent change in learners' behaviour. The instrumentality of the teachers in students' learning and in the preparation of students to succeed in examinations and the real world cannot be debated, perhaps, the reason why Adegbemile (2011) averred that teachers hold the key to nation-building. All of these make the job of a teacher a difficult one. With all these functions been attached to the duty of a teacher, one may not be surprised that all accusing fingers point towards them for the failure of the education system. However, it is rational to say that the problems that plagued the education system in Nigeria and Adamawa State, in particular, thus leading to poor students' attitudes towards learning and underachievement are multifaceted. With each player (students, parents, government, institutions and teachers) playing their part in it. Indeed, the problems can be likened to mountain Kilimanjaro in Africa, it is only when one player chooses to stand on his or hers that he/she sees other players to blame. This study, however, focuses on teacher academic qualification as a predictor of students' attitude and academic achievement. This is, even though the government who supervised the formulation

of the National Policy on Education by the Federal Republic of Nigeria (FRN, 2014) which made the Nigerian Certificate of Education (NCE) the minimum requirement to teach had, on many occasions, recruited unqualified (non-education) graduates to teach in institutions of learning. The reports of the National Economic Empowerment and Development Strategy (NEEDS), accentuated by Alafiatayo, Anyanwu and Salau (2016) which indicated that more than 49 per cent of the teachers in Nigeria are unqualified bolster this assertion. This is synonymous with putting round pegs in square holes, thereby making education graduates flood the streets with no jobs. The teaching profession in Nigeria has often been seen as a dumping ground for jobless graduates irrespective of course of study; a transitional camp where graduates wait for better days to come. With the Nigerian government, known for formulating beautiful policies but notorious in implementation, the persistence of this problem may bring harm for the greater good of the country. Omede (2011) observed that what is typical of most Nigerian administrators is always a wide gap between policy formulation and execution. This makes this study timely in drawing the attention of the authorities concerned about the quality of teachers teaching in secondary schools in Adamawa State and Nigeria at large.

Teachers' Qualification (TQ) entails the basic training acquired by a teacher to enable him/her to practice in the teaching profession. Kola and Sunday (2015) define 'qualification' as a special skill or type of experience or knowledge that makes someone suitable to do a particular job or activity. Therefore, a teachers' qualification is a particular skill or type of experience or knowledge someone possesses to make him or her suitable to teach (Aina & Olanipekun, 2015). A teacher's qualification may also be seen as a teacher's certification. Gaji (2014) accentuated this view by stating that certification is a measure of teacher qualifications that combines aspects of knowledge on the subject matter about teaching and learning. In the words of Rice (2003), teacher certification is defined as the traditional primary gatekeeper machinery for the teaching profession. The scholar added that the precise requirements for certification vary from one country to another; however, it should include the completion of an accredited and approved teacher education programme, practice teaching, and a formal recommendation from an institution of higher education. In the Nigerian context, according to the National Policy on Education (FRN, 2014), the Nigerian Certificate of Education (NCE) was approved as the minimum qualification for entry into the teaching profession.

In continuance with the foregoing definitions, Clotfelter, Ladd and Vigdor (2007) stated that credentials such as a teacher's years of experience, type of license, and licensure test score defined teacher certification. This is similar to Abe's (2014) position who outlined certification in teachers' expertise area and their ongoing professional development, years of experience in preparation of subject matter and pedagogy and level of education as ingredients that defined teacher qualification. Stronge (in Kiamba & Mutua, 2017) drew a connection between teacher certification and effective teaching to the educational background and scores on some tests of pedagogical, and content knowledge, or both. This is in line with the submission of Darling-Hammond (2006), that teacher certification is a combined set of qualifications which include general academic and verbal ability, subject matter knowledge and teacher education. Darling-Hammond (2000) averred that the knowledge about the subject matter and teaching and learning is the certification status of teacher qualifications. The teaching qualification is an end product of professional development that incorporates all categories of learning undertaken by teachers beyond the point of their initial training (Craft, 2000). Examinations, often in general knowledge and teaching skills,

coursework and practice teaching were reported by Boyd, Goldhaber, Lankford and Wyckoff (2007) as the defining components of teacher certification. However, a teacher's qualification in this study is defined as the highest academic qualification (certification) obtained by the Geography teacher. Geography teachers with a background in education are regarded as professionally qualified teachers. Unqualified teachers, on the other hand, are teachers of Geography who do not possess the minimum teaching qualification of Nigerian Certificate of Education (NCE) in Geography or Postgraduate/Professional Diploma in Education. Nevertheless, they are engaged in teaching Geography in public senior secondary schools.

The poor qualifications of teachers are not only a major problem in Nigeria but in African schools (Baloyi in Maphoso & Mahlo, 2015). Ideally, teacher certification should keep unqualified teachers away from the classroom, while giving qualified teachers with the requisite requirements the authorization to enter the classroom. However, the reverse is the case in secondary schools of Adamawa State. The quality of teachers in an education system determines the quality of instruction they will provide to learners. This is why the National Policy on Education (FRN, 2014) considered it easier for a camel to pass through the eye of a needle than for an education system to rise above the quality of its teachers. According to Stigler and Hiebert (2002), teaching effectiveness increases with an improvement in teacher qualification. From this vintage view, it could be inferred that the more the qualification the better the teacher is likely to manage instruction and provide effective teaching and learning. Similarly, Ayodele (2011) opined that high-quality teachers are the best resources and assets of an education system. Teacher quality is widely regarded by scholars as the most potent school-related factor that influences learners' academic performance (Motoko, Le Tendre, & Scribner, 2007). Teacher academic qualification plays a role in students' attitudes toward learning and academic achievement (Goe, 2007). A highly qualified teacher improves the students' academic learning attitudes in both the short and long-term quality of life (Goe & Stickler, 2008). There is the possibility that the qualified teacher will employ correct methods of teaching because he/she is familiar with strategies that are appropriate for all learners in the class. A qualified teacher might have been exposed to the rules and procedures that enable students to understand clearly and develop mastery in Geography. Newstrom and Davis (2012) in a study determine teacher quality and training on students' achievement, the results showed that trained teachers do make a difference and in particular teacher qualification, positively imparted on students.

Taking a cue from the foregoing, it has also been argued that teachers with higher educational qualifications are more effective than those with lower qualifications and that skilled teachers are more productive than the unskilled (Iheanacho, 2002). A study also found that an instruction delivered by a highly qualified teacher has a positive learning outcome (attitude and academic achievement) on the students (Gershenson, 2016). The unqualified teacher on the other hand may be lacking in these qualities and therefore may not be able to make the students develop the required skills. Agyeman (in Tella, 2006) reported that a teacher who does not have both the academic and the professional qualifications to teach would undoubtedly have a negative influence on the teaching and learning of the students. Therefore, if the Geography teachers in secondary schools of Adamawa State are not qualified, they may not arouse students' interest and make them learn effectively. This may negatively affect their achievement in external examinations and subsequently culminate in negative attitudes towards Geography. Adeniji (2004) supported this assertion to a great extent by

stating that teacher qualification has a potent relationship with students' attitude and achievement. To further buttress this point, Gbore and Daramola (2013) argued that the shortage of qualified teachers is responsible for the poor attitude and academic achievement of students. This adds to the fact that Geography teachers in secondary schools of Adamawa State, who are not professionally qualified to teach, may not have the requisite skills to effectively teach the students.

Several documented evidence exists on teachers' qualifications and students' attitude and academic achievement. However, this literature remains extremely inscrutable and varying. Oviawe (2020) found that teachers' quality influences students' academic performance in technical drawing. Similarly, Alufohai (2013) stated that teacher certification status and a degree in the subject to be taught are positively correlated with subject outcomes (attitude and academic achievement). Jega and Julius (2018); Unanma et al. (2013); Darling-Hammond (2000) found a positive relationship between the teacher's academic qualifications and student's academic achievement. Musili (2015), Adaramola and Obomanu (2011) found that teacher qualification could predict students' attitudes and achievement. Some scholars also conducted studies that compared students' academic achievement based on high or low levels of qualifications. For example, the studies by Bamidele and Adekola (2017); Owolabi and Adebayo (2012) revealed that students taught by teachers with higher qualifications performed better than those taught by teachers with lower qualifications. Taking certification into consideration, Palardy and Rumberger (2008) recorded that students made greater gains in reading ability when taught by fully certified teachers. In line with this discovery, Darling-Hammond et al. (2005) also found that those teachers who had completed training that resulted in a recognized teaching certificate were more effective than those who had no dedicated teaching qualifications. Akinsolu (2010) investigated the relationship between the quantity and quality of teachers' and students' academic performance in Osun State, Nigeria, qualified teachers with authentic knowledge of the relevant subject matter significantly relate to students' attitude and academic performance. According to Mhonyiwa (2014), a teacher certification could make a student acquire interest (attitude) in a lesson, hence aspires for academic success. Idika's (2020) results showed that teachers' qualifications and students' attitudes towards the subject matter are the key factors affecting effective teaching and learning, the effects which may be positive, negative, or neutral. Oredein and Oloyede (2007), Obadara (2005), and Adepoju (2002) posited that teachers' characteristics (qualification) determine students' affective domain (attitude) of learning. Awandia (2019) also noted that teacher qualification can change students' negative attitudes towards a subject to be positive and consequently, their academic achievement. Alafiatayo et al. (2016) indicated a significant relationship between the teachers' qualification with students' attitudes and academic achievement in Biology.

On the contrary, other scholars have, however, reported conflicting findings to the preceding findings. For instance, Igberadja's (2016) result revealed that the teachers' qualifications do not have any significant effects on students' academic achievement. Kasiisa and Bakaluba (2013), Kosgei et al. (2013) reported a contradictory result stating that teacher qualification cannot be factored in students' learning outcomes. In what appears surprising, Phillips (2010) found that grade one students tended to have lower mathematics achievement gains when they had teachers with the requisite certification. Wenglinsky (2001) revealed that teachers' input in terms of teachers' qualifications proved not to be related to students' academic performance. Wayne and Youngs (2003) found no clear relationship between US teachers' certification status

and their students' achievement. Sousay, Portela and Sa (2016) reported that advanced degrees had no relationship with teacher quality as measured by students' achievement gains. Haider and Hussain (2014) observed a negative weak relationship between teacher qualification and students' learning outcomes (attitude and academic achievement). All these go to show the inconsistencies and limitations contained in the literature regarding teachers' qualifications and students' attitude and academic achievement. On whether the Geography teacher qualification could predict students' attitude and academic achievement in Geography in senior secondary schools of Adamawa State, remains a question begging for more answers that were given in the present study.

Contribution to Knowledge: No doubt, several studies have been conducted to show the relationships between teacher qualification and students' academic achievement; however, to the best of the researchers' knowledge, it is interesting to know that none of these studies were conducted in the discipline of Geography. Similarly, in the Nigerian and global contexts, the bulk of literature searches also revealed that nothing was done in the aspect of teacher qualification and students' attitude to Geography. This study breaks new ground by providing empirical evidence as it pertains to Geography teachers' qualifications, attitude and academic achievement of senior secondary school students in Adamawa State. The findings provide data that will help policymakers and school administrators in strengthening the recruitment process of teachers and repositioning education in Adamawa State and Nigeria at large. The outcome of this process may lead to the restructuring of the entire system of education in Nigeria for sustainable development goals.

1.2 Purpose of the Study

The purpose of the study is to investigate teachers' academic qualification as a predictor of attitude and academic achievement in Geography of senior secondary school students in Adamawa State, Nigeria. Precisely, the study will determine whether:

i. teachers' academic qualification predicts students' attitude to Geography; and
ii. teachers' academic qualification predicts students' academic achievement in Geography.

1.3 Research Question

The following research question was posed to guide the study:

i. What is the level of Geography teachers' academic qualifications in senior secondary schools of Adamawa State?

1.4 Hypotheses

The following null hypotheses were formulated and tested at 0.05 alpha level:

$H0_1$: Teachers' academic qualification does not significantly predict students' attitude to Geography.

$H0_2$: Teachers' academic qualification does not significantly predict students' academic achievement in Geography.

1.5 Scope of the Study

This study was restricted to public senior secondary schools in Adamawa State. It focuses on teachers' academic qualification as a predictor of students' attitude and academic achievement in Geography. The study was delimited to students offering Geography in the public senior secondary schools in Adamawa State. The study concentrates mainly on students in Senior Secondary Two (SS-II) as well as Geography teachers with qualifications in Geography. The SS-II students were considered in this study because they had been introduced to secondary school Geography from SS I to II, hence could provide a rational view of their attitude towards the subject. Moreover, the SS III students were preparing for their external examinations at the time this study was conducted and therefore, could not readily avail themselves to participate in the study. Additionally, the Geography teachers were considered since the study involved teacher qualification in a particular content area.

This scope was cumulatively built upon the fact that the study seeks to justify the attitude and academic achievement of senior secondary school students concerning the Geography teachers' qualifications. The study covered some selected public senior secondary schools from the three senatorial zones that have five education zones in the state. The five education zones are Yola, Gombi, Numan, Ganye, and Mubi education zones.

The research was a correlational survey type (predictive correlation survey design). Therefore, the research instruments were delimited to the use of the checklist and the Geography Achievement Test (GAT). Academic achievement in this study is limited to the students' achievement scores in the Geography achievement test designed for this study from the Geography SSCE curriculum and patterned in line with WAEC past questions in Geography. Descriptive statistics of frequency counts and percentages were used to answer the research questions, however, simple and multiple linear regressions were used to test the null hypotheses.

2. LITERATURE REVIEW

2.1 Teachers' Qualification, Students' Attitude and Academic Achievement

A discussion of teacher qualifications includes such issues as what subject the teacher majored in, whether the teacher has an NCE, Bachelor's degree, and Master's degree, or whether the teacher has passed the required licensure tests, and so forth (Kennedy, 2004). Kennedy further defines qualifications as those qualities that teachers have even before they are employed as teachers and that are often assumed to contribute to the quality of their teaching. These qualities, which the author calls "teacher personal resources", include knowledge, skills and expertise, beliefs, attitudes and values, credentials and personal traits. Goe (2007) defines qualifications as resources that teachers bring with them to the classroom and which are considered important in establishing who should be allowed to teach. These resources include teacher coursework, grades, subject-matter education, degrees, test scores, experience, certification and credentials, as well as evidence of participation in continued learning such as internships, induction, and professional development. Therefore, a teacher is to be able to define and control the rate of students' attitude and to use the methods of monitoring it at Geography lessons.

According to Usman (in Musau & Migosi, 2015), a qualified teacher can be defined as one who holds a teaching certificate and/or licensed by the state, owns at least a bachelor's degree from a four-year institution and well qualified in his/her area of specialization. The introduction of the Teachers Registration Council of Nigeria (TRCN) by the Federal Government of Nigeria is a landmark for the certification of teachers. Certification is a measure of teacher qualifications that combines aspects of knowledge on the subject matter about teaching and learning. Lassa (2000) claims that education cannot be provided by just anybody; it requires a certified teacher who plans and delivers the lessons or instruction in such a way that objectives can be achieved. Nwangwu (2005) confirms that it is not possible to have a quality education without having quality and competent teachers. Ngada (2006) emphasizes further that no adequate training of any sort can take place without recruiting qualified teachers to handle programmes of study. A professionally qualified teacher is the one who possesses professionally based knowledge in the theory and practice of education as well as finds job satisfaction in the belief that he or she is making an important contribution to the social, cultural and economic development of his/her country. Such a teacher should equally, be able to understand students' attitudes, to exploit the educational benefits of the social context within which he/she lives. The teacher should be able to assist students to reach their full intellectual and social potentials. Ofem, Iyam and Bassey (2015)

observed that many students draw inspiration and a positive attitude from competent and good teachers who are essentially qualified. This means that educational training influences job performance. Howbeit, studies were done by other scholars found that teacher professional qualifications are not significantly related to students' attitude and consequently, academic achievement (Rivkin, Hanusheik & Kain 2005; Buddin & Zamarrow, 2009; Mbugua et al., 2012; Kimani, Kara & Njagi, 2013; Musau et al., 2013). Regardless of this, Fatai (2005) contends that only the teachers who are qualified, certified and competent, and of a good moral standing need to be employed to teach the students. Studies have shown that a teacher's qualification impacts directly on the quality of education imparted to the learners (Waseka, Enose & Okwach, 2016). Aladejana and Odejobi (2006) corroborated this view stating that the professional qualification of teachers is related to students' achievement. It is, therefore, necessary for any school to have enough qualified teachers to promote a positive attitude towards learning and subsequently, improved academic achievement.

The school, in an educational setting, could be described as a place where teaching and learning takes place. It is an institution for educating learners in different fields of human endeavour. Therefore, the business of teaching and learning needs to be handle by professionals who are not only grounded in their fields of specialization but possess the requisite qualification to teach. It is generally acknowledged that promoting teacher quality is a key element in improving primary and secondary school education and one primary goal in education is to have a highly qualified teacher in every classroom (Harris & Sass, 2008). However, in recent times, this revered sector has experienced the proliferation of unqualified personnel to the extent that it has now become a dumping ground for prospective job seekers irrespective of fields of specialization. The National Policy on Education (FRN, 2014) as stated earlier specified the Nigeria Certificate in Education (NCE) as the minimum qualification for entry into the teaching profession. This notwithstanding, the educational analysis carried out in Nigeria by the National Economic Empowerment and Development Strategy (NEEDS, 2005), indicated that more than 49 per cent of the teachers in Nigeria are unqualified. Comparing these two conflicting scenarios, one cannot help but question the Federal Government of Nigeria who is the formulators of this policy and the largest employers of this said over 49 per cent unqualified teachers. The implication of this could mean negative students' attitude towards learning and subsequently poor academic achievement. Usman (2003) bolsters the preceding views by contending that the worrisome deficiency of qualified teachers could be responsible for the pitiable performance observed among students.

A qualified teacher has been exposed to the rules and procedures that enable students to understand clearly and develop mastery in a subject. Therefore, there is the likelihood that the qualified teacher would employ correct methods of teaching because he/she is familiar with strategies that are appropriate for all learners in the class. Ademulegun (2001) opined that the students taught by teachers that are more qualified in terms of knowledge of a subject matter would perform better than those taught by less qualified teachers. Buddin et al. (2009) put it that teacher effectiveness is typically measured by traditional teacher qualification. A teacher's qualification as earlier stated could also mean a teacher's certification. This view, accentuated by Gaji (2014) stated that certification is a measure of teacher qualifications that combines aspects of knowledge on the subject matter about teaching and learning.

Teacher certification as a signal of teacher quality that has been investigated at various levels, and is either found to be unrelated or positively related to students' attitude and achievement (Darling-

Hammond, 2000, Darling-Hammond, Holtzman, Gatlin & Heilig, 2005). From this vintage view, it could be inferred that the more the qualification the better the teacher is likely to manage instruction and provide effective teaching and learning. Wayne and Young (2003) show that having a higher degree matters in teaching. Moreover, it has also been argued that teachers with higher educational qualifications are more effective than those with lower qualifications and that skilled teachers are more productive than unskilled (Iheanacho, 2002). The unqualified teacher on the other hand may be lacking in these qualities and therefore may not be able to make students develop the required skills. Agyeman (in Tella, 2006) reported that a teacher who doesn't have both the academic and the professional qualifications to teach would undoubtedly have a negative influence on the attitude and teaching of their students. Therefore, if the Geography teachers in secondary schools of Adamawa State are not qualified, they are not likely to arouse students' interest and make them learn effectively. This may negatively affect their achievement in external examinations and subsequently culminate in a negative attitude towards Geography. According to Alafiatayo et al. (2016) and Ibrahim (2000), the qualification and exposure of a teacher could have far-reaching effects on students' academic achievement.

Studies on teacher qualification and students' academic achievements have also reported conflicting results. While some of these studies found out that teacher qualification could predict students' academic achievement, others were of the view that teacher qualification doesn't matter. For instance, Maguswi (2011) found that a lack of qualified teachers in Physics had a significant contribution to students' failure. Moreover, a study done by Adaramola and Obomanu (2011) in Nigeria found that the lack of qualified teachers led to the consistently poor performance of students. Karpati (2009) conducted a study in 25 countries in Europe and concluded that teacher quality is the most important factor in an education system and the second most important among the variety of factors affecting students' achievement. The author further remarks that an education system cannot exceed the quality of its teachers. While Adodo and Oyeniyi (2013); Adesoji and Olatunbosun (2008) and Osokoya (2008) reported that a teacher's qualification contributed marginally to students' academic achievement. Although Wiki (2013) and Abe and Adu (2013) noted a positive relationship between teacher qualifications and students' academic achievement, Edu, Edu and Kalu (2012) reported that the inadequate qualifications of teachers contributed to students' repetition of a class. Adeoti and Olufunke (2016) demonstrated a significant relationship between teacher's qualification and students' academic performance. Alafiatayo et al. (2016) researched the effect of selected teacher abilities on students' attitudes and academic performance in Biology among secondary schools in the Sabon-gari Local Government area, Kaduna State, Nigeria. Findings indicated significant relationships between the teachers' qualification with students' attitudes and academic achievement in Biology. Ofeimu and Oluwatoyin (2017) investigated teachers' quality as a determinant of students' academic performance in secondary schools in Edo south senatorial district of Nigeria. The results showed that teacher academic qualification had no significant influence on students' academic performance.

Furthermore, Darling-Hammond (2000) study examined how teacher qualifications and other school inputs were related to students' achievement across the states in the United States of America, teacher quality characteristics such as certification status and a degree in the field to be taught are very significantly and positively correlated with students' outcomes. Arcidiacono (2017) explored the relationship between traditional measures of teacher level of education and certification

and student achievement growth in mathematics in international schools in Brazil. The regression analysis showed a positive relationship between teacher certification and level of education on students' achievement. Ellerhorst (2014) investigated the relationship between teacher characteristics and student performance in high school geometry in Western New York State School District, USA. Through empirical testing, it was found that a geometry teacher's degree level and certification type had a significant impact on student performance in high school geometry. Sousay et al. (2016) investigated teacher characteristics and student progress in Portugal. Advanced degrees showed no relationship with student achievement gains (attitude and academic achievement). Igberadja (2016) study was to assess the effects of teacher qualification on students' performance in the industrial safety course of the department of technical and business education of Delta State University, Abraka, Nigeria. The result revealed that the teacher qualification did not have any significant effects on students' performance in Industrial Safety. Also, Okonkwo (2000) in a study examined the instruction between two independent variables of teacher quality and instructional strategy on students' performance in secondary school science found that students taught by professionally trained biology teachers performed significantly than those students who were taught by the non-professional biology teachers. In a study on the impact of teacher qualification on students' performance, Clotfelter, Ladd and Vidgor (2006) found that a significant difference exists in the mean performance of students in schools staffed with qualified teachers and those schools staffed with unqualified teachers. Adeniji (2004) supported this finding to a greater extent stating that teacher qualification has a potent relationship with students' attitude and achievement. On the contrary, Musau and Migosi (2015) study found that there was no significant difference in means between teacher qualification and students' attitude and achievement. This is in line with Izumi and Evers (2002) submission of no significant relationship between teacher qualifications and students' attitude and achievement in science-based subjects at the SSCE level.

The foregoing discussions relate to teacher qualification as a function of students' attitude and academic achievement. However, one striking limitation that could be observed in the studies reviewed is that most of the studies compared teacher qualification with students' academic achievement. In other words, a lack of sufficient literature that compared teacher qualification with students' attitudes was discovered. Besides, in secondary schools of Adamawa State, a paucity of data regarding the efficacy of teacher qualification on students' attitudes and academic achievement in Geography was also observed. To fill this existing knowledge gap, the study establishes the extent to which the Geography teacher qualification predicts students' attitudes and academic achievement in Geography.

3. MATERIALS AND METHODS

3.1 Research Design

The design for this study is the predictive correlational survey design. According to Sousa, Driessnack and Mendes (2007), predictive correlational studies predict the variance of one or more variables based on the variance of another variable(s). The authors added that the study variables are classified as independent (predictor) and dependent (outcome). In this study, the outcome variables—students' attitude and academic achievement in Geography, were paired with the predictor variable (teacher qualification) to determine the relative predictive values. The teacher qualification in this study serves as predictors of students' attitude and academic achievement. Thus, it could be seen that predictive correlational survey design is the most appropriate for the study.

3.2 Population

The population for the study consists of all the Geography teachers and senior secondary school students offering Geography in Adamawa State. The population of Geography teachers as of 2018 was 834 and that of students offering Geography was 25,890 from 366 senior secondary schools in Adamawa State (PPSMB, 2018). It should be noted that Geography is not a core but optional subject in the curriculum, therefore, only students in Humanities offer Geography. The study covered the five education zones in Adamawa State namely: Yola, Mubi, Gombi, Numan and Ganye education zones.

3.3 Sample and Sampling Techniques

A sample of 800 teachers and students teaching and offering Geography respectively in senior secondary schools of Adamawa State were engaged in the study. This sample consists of 400 Geography teachers and 400 students offering Geography in senior secondary schools of Adamawa State. The multistage sampling technique at six levels was employed in selecting participants for the study. In the first stage of the sampling procedure, a stratified sampling technique was adopted based on the five education zones in Adamawa State. At this stage, units (zones) were selected using the probability equal to one strategy (Akpo, 2012). This implies that all the five education zones in Adamawa State namely: Yola, Mubi, Gombi, Numan and Ganye education zones were selected. Similarly, at the second stage, units (Local Government Areas) were selected using the probability equal to one strategy. At this stage, all the LGA's in four of the five education zone were selected while the simple random sampling technique (balloting without replacement) was applied to select four out of the five LGA's in Numan education zone.

At the fourth stage, five co-educational senior secondary schools from each of the 20 LGAs (totalling 100) were selected using simple random sampling involving the use of balloting with replacement. Simply put, in each of the five education zones 20 senior secondary schools were selected. At the fifth stage, the simple random sampling technique involving balloting with replacement was used in selecting 4 students offering Geography from Senior Secondary Two (SS II) in each of the 100 schools sampled. This is to further say that in each of the five education zones, 80 students (totalling 400) were sampled. The students were assigned numbers written on a piece of paper, folded and dropped in a box, from which a paper was picked by a student at a time. The number picked by a student automatically becomes the sample for the study. This process was repeated until 4 numbers (representing 4 students) are selected. The names of the students selected were compiled. This process was repeated in each of the 40 selected schools in the five education zones in the state. In the simple random sampling procedure, balloting with replacement was used to give every participant the chance of being selected. Ergo, any school or number drawn or selected once will be ignored whenever it is being drawn on a subsequent occasion. The rationale for choosing SS II students in this research is because they were the best representatives of senior secondary school students offering Geography. They have been offering Geography as a school subject long enough and have covered more contents good enough to provide judgment about their attitude and academic achievement in the subject more than the SS I students. Moreover, the SS III students were sitting for their final year examinations hence could not be available for the study.

Finally, a purposive sampling technique was employed in selecting 400 Geography teachers. It is a purposive sampling technique because only Geography teachers were engaged in the study. Additionally, only Geography teachers with certification (e.g. BSc. Geography or B. Ed. Geography) were factored in the study. Teachers of Geography will however not be part of the

study. Moreover, the dependent variables of this study (i.e., students' attitude and academic achievement) are predicated on no other subject teacher but the Geography teachers in particular. More so, it is pertinent to have a balanced representation of sample sizes (i.e., 400 Geography teachers vs. 400 students) of participants because it is one of the assumptions for running a correlation analysis. This translated to a total of 800 Geography teachers and students in all the sample schools. The sample sizes for the students, teachers and schools were computed using the Cochran's (1963) sample size formula (with finite population correction) viz: $n = [z^2 * p * (1 - p) / e^2] / [1 + (z^2 * p * (1 - p) / (e^2 * N))]$, where: n = sample size, z = z-score associated with a level of confidence, p = sample proportion (expressed as a decimal), e = margin of error (expressed as a decimal), N = population.

3.4 Instruments for Data Collection

Three instruments constructed by the researcher were employed for data collection. The instruments involved were Geography Teachers' Qualification Checklist (GTQC), Students' Attitudinal Scale in Geography (SASIG) and Geography Achievement Test (GAT). However, the SASIG instrument was adapted from Ozdemir's (2012) Geography Lesson Attitudinal Scale. The GTQC was used to elicit information on teacher qualifications. Teachers' qualification in the GTQC was classified into five levels of Unqualified (1), Lowly Qualified (2), Moderately Qualified (3), Qualified (4), and Highly Qualified Geography teachers (5).

Furthermore, the Students' Attitudinal Scale in Geography (SASIG) contained five-point Likert scale type items ranging from SA (5) to SD (1) for positive items and SD (5) to SA (1) for negative items. The 26-item instrument elicits information about the students' attitudes towards Geography. For easy understanding, the attitude of students towards Geography was classified as a negative or positive attitude. Geography Achievement Test (GAT) was constructed from the Senior Secondary Geography curriculum and patterned in line with past WAEC standardized test items in Geography. The instrument consists of 50 objective choice items lettered A-D carrying 100 marks. The GAT instrument covers most aspects of Geography: Physical, Human and Regional/Map Reading. The topics were selected based on the areas in the Geography curriculum covered by the schools sampled for the study. These topics are map reading and interpretations, environmental hazards, weather and climate, world population distribution and transportation. The duration set for students to attempt these questions was 1hr: 30Min. The item specification for the GAT instrument measured six cognitive domains in the Blooms taxonomy of educational objectives namely: knowledge, comprehension, application, analyses, syntheses and evaluation.

3.5 Validation of the Instruments

To provide for face and content validation, the instruments for data collection (GTQC, SASIG and GAT) were subjected to thorough scrutiny and vetting by Four experts in Geography education, Curriculum and Instructions and Science Education from the Department of Science Education, Adamawa State University, Mubi, and the Departments of Environmental and Life Science Education and Physical Sciences Education respectively, Modibbo Adama University of Technology, Yola. In the face validation, the experts were asked to superficially and subjectively view whether the instruments generally measure what it purports to measure. They were also asked to adjudge the transparency or relevance of the items as it appears to the participants.

In the critical content validation, the subject matter experts were asked to evaluate whether the checklist and test items assessed defined contents. Here, the experts also scrutinized each item in the instruments, ensuring that it measures the intended outcomes of the study. The experts

also looked at the contents of the instruments simultaneously with the topic, purpose, objectives, research questions and hypotheses, ensuring that they are in tandem with one another. After this, the validators made some useful suggestions and corrections which included: restructuring the topic of the study by treating the variables first before the subjects' location in the study; emphasizing the need to adapt a Geography attitudinal scale and to upgrade some items. All necessary criticisms and corrections proffered by the validators guided the production of the final draft of the instruments.

3.6 Reliability of the Instruments

To establish the internal consistency of the instruments for this study (SASIG and GAT), trial tests were conducted by engaging 40 students offering Geography in public senior secondary schools in Mubi North LGA of Adamawa State. The schools and students selected for the trial tests were not part of the sample for this study. The reliability coefficients of the SASIG and GAT were established using Cronbach alpha statistic. This is because Cronbach alpha is best suited in analyzing dichotomous data; as it was with the SASIG and GAT instruments. Therefore, the reliability coefficients of the SASIG and GAT instruments were 0.78 and 0.77 respectively. These reliability coefficients indicate a high level of internal consistency for the instruments, which are adequate for the study.

3.7 Method of Data Analysis

Data were analyzed using descriptive and inferential statistics. Hence, descriptive statistics of frequency counts and percentages were used to answer the research question. However, for the hypotheses, three important analyses were conducted using the data obtained from the field to ascertain the suitability and appropriateness of the statistical tools employed to test the null hypotheses. The tests are the test of linearity: showed the relationship between the dependent (outcome) variable and independent (predictor) variable which is linear along with the regression graph. Test of normality: showed that the data is normally distributed; and the test of homoscedascity showed that the residuals are equal across the regression line. The outcome of these tests rationalized the application of simple linear regression statistic to test the null hypotheses. All analysis was done using Statistical Package for Social Science (SPSS) version 25. The decision rule for testing the null hypothesis was to reject null hypotheses when $p < 0.05$ or otherwise not to reject when $p > 0.05$.

4. RESULTS

4.1 Answering Research Question

Research Question One: What is the level of Geography teachers' academic qualification in senior secondary schools of Adamawa State?

Descriptive statistics of frequency counts and percentages were used to answer this research question. It was done following the five levels of Geography teachers' academic qualifications established in the study. The result is presented in Table 1.

Table 1: Summary of Frequency Counts and Percentages of Geography Teachers' Academic Qualification

Levels of Qualification	Qualification Types	Frequency	Percent
Unqualified	B.A, B.Sc., B.Tech, M.Tech, M.A, M.Sc. and Ph.D. in Geography without educational qualification	100	25.0
Lowly Qualified	NCE and B.A, B.Sc., B.Tech, M. Tech, M.A, M.Sc. with NCE.	104	26.0
Moderately Qualified	B.A, B.Sc., B.Tech, M.Tech, M.A, M.Sc., Ph.D., with PGDE, or PDE.	82	20.5
Qualified	B.A. Ed., B. Ed., B.Sc. Ed., and B.Tech. Ed.	89	22.3
Highly Qualified	M.A. Ed., M. Ed., M.Sc. Ed., M. Tech. Ed., M.A. Ed. and Ph.D./Education	25	6.3
Total		400	100.0

Table 1 illustrates Geography teachers' level of academic qualification in senior secondary schools of Adamawa State. The first category representing 25% (100) of the 400 teachers are regarded as unqualified Geography teachers. These are teachers with the following qualifications: B.A, B.Sc., B.Tech, M. Tech, M.A, M.Sc. and Ph.D. in Geography without educational qualification. The second category of teachers, representing 26% (104), was termed as lowly qualified Geography teachers. They possess the following qualification in Geography: NCE and B.A, B.Sc., B.Tech, M.Tech, M.A, M.Sc. with NCE. The third level of qualification representing 20.5% (82) was Geography teachers with degrees either backed by Post Graduate Diploma in Education (PGDE) or Professional Diploma in Education (PDE). Their qualifications are as follows: B.A, B.Sc., B.Tech, M.Tech, M.A, M.Sc., Ph.D., with PGDE, or PDE.

The fourth level representing 22.3% (89) of the teachers were those with first degrees in education (B.A. Ed., B. Ed., B.Sc. Ed., and B.Tech. Ed.). The fifth category with 25 (6.3%) Geography teachers represent those with post-graduate degrees teaching in secondary schools of Adamawa State (M.A. Ed., M. Ed., M.Sc. Ed., M.Tech. Ed., M.A. Ed. and Ph.D./Education). From this data, it could be deduced that the level of the lowly qualified Geography teachers teaching in secondary schools of Adamawa State was the highest, followed by the unqualified teachers, then qualified teachers, moderately qualified teachers, and lastly, the highly qualified teachers. Going by the number of unqualified Geography teachers in Adamawa State, which is next to highest, shows that Geography teachers' qualification in Adamawa state needs an upgrade. Any Geography teacher whose qualification fell in any of the five categories was assigned a score in the order in which the levels appeared and later used for statistical analysis of null hypotheses three and four. The data displayed in Table 1 is further depicted pictorially in Figure 1 with the aid of a pie chart.

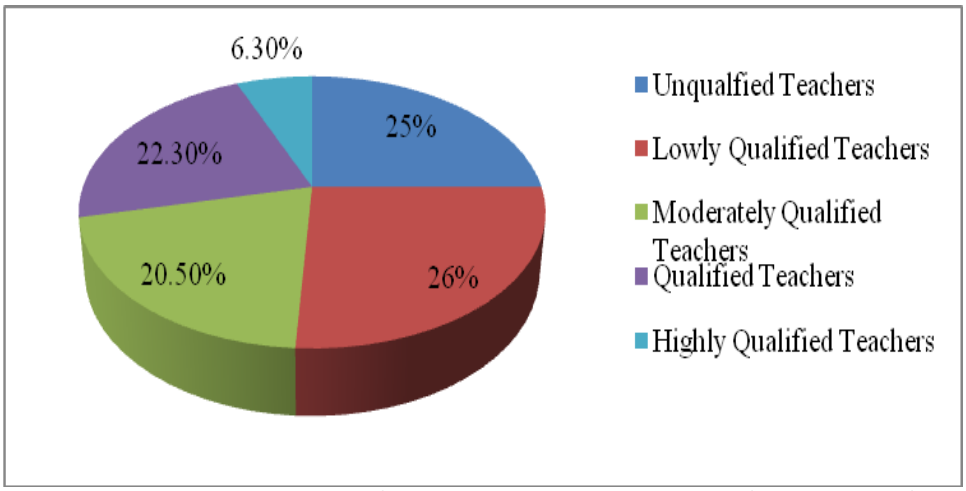

Fig. 1: A Pie Chart Showing Percentages of Geography Teachers Based on Levels of Academic Qualification

4.2 Hypotheses Testing

$H0_1$: Teachers' academic qualification does not significantly predict students' attitude to Geography.

To test this hypothesis, the five levels of teachers' qualifications were scored to serve as the predictor variable and the students' mean attitude score—the dependent variable. These data were analyzed using linear regression statistic. The results are presented in Tables 2a, 2b and 2c respectively.

Table 2a: Model Summary of Regression Analysis between Teachers' Academic Qualification and Students' Attitude to Geography

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.070[a]	.005	.002	.547

Table 2a shows the model summary between teachers' academic qualification and students' attitudes in Geography. The data summarized in the table shows an R-value of 070, R^2 value of 0.005 and adjusted R^2 value of 0.002. This implies that only 00.5% of the total variance in students' attitudes towards Geography can be accounted for by teachers' qualification. This R^2 value (coefficient of determination, Mooi, 2014) is quite low which suggests that teachers' qualification did not predict students' attitudes to Geography. Furthermore, the adjusted R^2 value which stood at 00.2% shows that the model is not a strong fit for the data. To ascertain the significance of this regression model, Table 2b is presented as an offshoot of Table 2a.

Table 2b: Summary of Analysis of Variance (ANOVA[a]) of Regression between Teachers' Academic Qualification and Students' attitude to Geography

Model		Sum of Squares	df	Mean Square	F	Sig.
1	**Regression**	.586	1	.586	1.960	.162
	Residual	118.953	398	.299		
	Total	119.539	399			

Not Significant; p > 0.05.

Table 2b shows how well the regression equation fits the data; the table indicates that the regression model did not predict the dependent variable significantly. This implies that teachers' academic qualification did not significantly predict students' attitude to Geography ($F(1, 398) = 1.960$, $p = 0.162 > 0.05$). This affirms that the regression model is not a good fit for the data. Table 2c is the coefficients table which provides the necessary information to predict students' attitude from teachers' qualification, as well as determine whether students' attitude contributes significantly to the model.

Table 2c: Summary of Regression Coefficients[a] between Teachers' Academic Qualification and Students' Attitude to Geography

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.936	.065		60.418	.000
	Teacher Qualification	-.024	.017	-.070	-1.400	.162

Not Significant; p > 0.05.

The relative contribution of teachers' academic qualification to the observed variance in the criterion variable (students' attitude) is indicated by the R and R^2 values. The result in Table 2c further emphasizes the results in the preceding tables which shows that teachers' academic qualification did not significantly predict students' attitude to Geography ($\beta = -0.070$, $t = -1.400$, $p = 0.162 > 0.05$). Hence, the null hypothesis of no significant prediction is hereby not rejected.

$H0_2$: Teachers' academic qualification does not significantly predict students' academic achievement in Geography.

This hypothesis was tested by correlating the teachers' academic qualification scores by levels with students' achievement scores in Geography. The linear regression statistic was used to compute the data. The results are contained in Tables 3a, 3b and 3c respectively.

Table 3a: Model Summary of Regression Analysis between Teachers' Academic Qualification and Students' Academic Achievement in Geography

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.816[a]	.666	.665	.968

Table 3a reveals the predictive value of teachers' academic qualification on students' academic achievement in Geography. The table reveals an R-value of 0.816, an R^2 value of 0.666 and adjusted R^2 value of 0.665. Thus, the R^2 value

(coefficient of determination, Mooi, 2014) indicates that 66.6% of the variance in students' academic achievement in Geography can be explained by teachers' academic qualification. This R^2 value (66.6%) is quite large indicating that teachers' academic qualifications predict students' academic achievement in Geography. After adjusting the R^2 value of 66.6%, the adjusted R^2 value stood at 66.5%. This shows that the overall fit of the model is good. To determine the significance of the R^2 value, Table 3b provides further explanation.

Table 3b: Summary of ANOVA[a] of Regression between Teachers' Academic Qualification and Students' Academic Achievement in Geography

Model		Sum of Squares	df	Mean Square	F	Sig.
1	**Regression**	744.289	1	744.289	793.517	.000*
	Residual	373.309	398	.938		
	Total	1117.598	399			

**Significant; p < 0.05.*

The ANOVA Table 3b indicates that the foregoing regression equation fits the data. This implies that teachers' academic qualification significantly predicted students' academic achievement in Geography (F (1, 398) = 793.517, p = 0.000 < 0.05). Table 3c provides more emphasis on this detail.

Table 3c: Summary of Regression Coefficients[a] between Teachers' Academic Qualification and Students' Academic Achievement in Geography

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	**(Constant)**	.627	.115		5.431	.000
	Teacher Qualification	.853	.030	.816	28.169	.000*

**Significant; p < 0.05.*

Table 3c gives the coefficients of teachers' academic qualification in the regression equation; the Beta values and significant *t* corresponding to the variable regressed against students' academic achievement in Geography. The data reveals that teachers' academic qualification significantly predicted students' academic achievement in Geography (β = 0.816, t = 28.169, p = 0.000 < 0.05). This result shows that improvement in teachers' academic qualification will lead to the corresponding improvement in students' academic achievement in Geography. Here, the null hypothesis of no significant prediction is hereby rejected.

5. DISCUSSION

The finding of research question one shows that there were levels of teachers' academic qualification established in the study. These varying qualifications place the number of Geography teachers teaching in secondary schools of Adamawa State at various levels. Therefore, the finding of this study has revealed that the level of qualification with the highest number of Geography teachers was the second level, termed as lowly qualified Geography teachers. The next after this was the first category termed as unqualified Geography teachers, then the fourth category known as qualified Geography teachers. The third category which is the moderately qualified Geography teachers came afterward and the fifth category which happens to be the highly qualified Geography teachers came up with the least number of teachers. Even though the results of the study placed the number of lowly qualified Geography teachers at the peak, the unqualified Geography teachers whose number is next to this was also quite high.

Going by this result, it shows the sum of unqualified and lowly qualified teachers was higher than the sum of qualified, moderately qualified and highly qualified Geography teachers. From this, one can infer that a large chunk of Geography teachers teaching in senior secondary schools of Adamawa State are without the requisite qualification in

education. This finding is in concomitance with the educational analysis carried out in Nigeria by the National Economic Empowerment and Development Strategy (NEEDS) and accentuated by Alafiatayo et al. (2016), indicating that more than 49 per cent of the teachers in Nigeria are unqualified. Usman (2003); Adaramola and Obomanu (2011) bolsters the preceding view by contending that the worrisome deficiency of qualified teachers could be responsible for the pitiable performance observed among students.

The study reveals that teachers' academic qualification did not significantly predict students' attitudes towards Geography. This implies that teachers' qualification does not correlate with students' attitudes to Geography. This finding is in tandem with other studies which reported that teacher professional qualifications are not significantly related to students' attitude (Buddin & Zamarrow, 2009; Mbugua et al., 2012; Kimani et al., 2013). Conversely, Musili (2015) found out that teacher qualification predicted students' attitudes. Alafiatayo et al.'s (2016) finding indicated significant relationships between the teachers' qualification and students' attitudes and academic achievement in Biology. Oredein and Oloyede (2007), Obadara (2005), and Adepoju (2002) posited that teachers' characteristics (qualification) determine students' affective domain (attitude) of learning.

Goe (2007) defines qualifications as resources that teachers bring with them to the classroom and which are considered important in establishing who should be allowed to teach. The reason for the lack of prediction between teachers' qualification and students' attitudes may be due to the high number of unqualified and lowly qualified Geography teachers' interaction with the students. Therefore, a vast majority of the students nonetheless, chose to develop an interest in Geography irrespective of their teachers' qualifications. This may be tied to the fact that Geography deals with the study of the earth as the home of man. In the strength of this, the learners want to know their environment.

The finding of null hypothesis two reveals that teachers' academic qualification significantly predicted students' academic achievement in Geography. This implies that an increase in teachers' qualification will positively lead to a corresponding increase in students' academic achievement in Geography. This finding bolsters the works of Musili (2015), Adaramola and Obomanu (2011) who found that teacher qualification predicted students' academic achievement. Oviawe (2020) found that teachers' quality influences students' academic performance. Similarly, other researchers had demonstrated a significant positive relationship between teachers' qualification and students' academic performance (Abe & Adu, 2013; Adeoti & Olufunke, 2016, Adegbola, 2019, Uddin, Nwachokor, & Uwameiye, 2019). However, Kosgei, Mise, Odera and Ayug (2013) and Musau, Migosi and Muola (2013) reported conflicting results. In line with these conflicting findings, Sousay et al. (2016) reported that advanced degrees had no relationship with teacher quality as measured by students' achievement gains. Similarly, Phillips (2010) found that grade one students tended to have lower mathematics achievement gains when they had teachers with the requisite certification.

Adeniji (2004) asserts that teacher qualification has a potent relationship with students' achievement. Moreover, the professional qualification of teachers is related to students' achievement (Aladejana and Odejobi, 2006). Furthermore, Lassa (2000) claims that education cannot be provided by just anybody; it requires a certified teacher who plans and delivers the lessons or instruction in such a way that objectives can be achieved. It could be seen from these submissions that the academic achievement of students is intricately linked to the teachers' qualification. Ergo, the high predictive value between teacher qualifications and students' academic achievement observed in this study may be

tied to variations in the levels of qualifications of teachers established in the study.

6. CONCLUSION

The study concluded that teachers' academic qualification was a valid and potent tool in predicting students' academic achievement in Geography, however, students' attitude to Geography was not predicted by teachers' academic qualification. The lack of prediction between teachers' academic qualification and students' attitudes to Geography could be explained by the focus of the SASIG instrument, which was designed to collect information on students' attitudes to Geography. A focus on students' attitudes towards the Geography teacher may have yielded a different result. In this gap, future studies can explore.

7. RECOMMENDATIONS

The findings of the study guided the following recommendations:

Geography teachers should ensure that their teaching qualification translates to quality teaching and positively reflect on students' attitudes. Teachers without education qualification should go for further training to acquaint themselves with methodologies that will enhance secondary school students' attitudes to Geography. Educational stakeholders should design and mount programme that considers the teaching qualification as a tool that can enhance secondary school students' academic achievement in Geography. The Adamawa State Ministry of Education should emphasize the minimum qualification in education (NCE) as well as higher education qualification in her recruitment of teachers. The government must ensure that only trained and certified teachers should be recruited to teach in secondary schools. Teachers without requisite education qualification interested in the teaching profession should be encouraged to enroll for a postgraduate or professional diploma in education to enhance their teaching abilities for effective output (academic achievement).

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