RELATIONSHIP BETWEEN TEACHER CREATIVITY, TEACHER MOTIVATION AND STUDENTS' CREATIVITY AMONG SECONDARY SCHOOLS IN ZARIA EDUCATIONAL ZONE, NIGERIA

BY

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DECLARATION

I declare that the this thesis entitled "Influence of Teacher Creativity Skills and Motivation on Students' Creative Potentialities among Junior Secondary Schools in Zaria Educational Zone" has been carried out by me in the Department of Educational Psychology and Counseling, Ahmadu Bello University Zaria. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this institution.

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CERTIFICATION

This thesis entitled "INFLUENCE OF TEACHER CREATIVITY SKILLS AND MOTIVATION ON STUDENTS' CREATIVE POTENTIALITIES AMONG JUNIOR SECONDARY SCHOOLS IN ZARIA EDUCATIONAL ZONE" by ABUBAKAR, Haruna Muhammad meets the regulations governing the award of the degree of Master of Education Psychology of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This thesis is dedicated to my late mother Malama Hauwa'u. May her gentle soul rests in perfect peace, Amen.

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Firstly, all praises belong to Almighty Allah The Absolute Compassionate, The Absolute Merciful my Creator, my Lord and my Guide of all times and tremendous blessing of Allah be upon the noble and lofty personality, the prophet Muhammad (SAW), his family, companions and the followers till the Day of Judgment, ameen.

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ABSTRACT

This study examines the Relationship between Teacher Creativity and Teacher Motivation on Students Creativity among Secondary Schools in Zaria Educational Zone. Three hundred and seventy two (372) comprising 186 students and 186 teachers were sampled and studied. Correlation research design was employed in conduct of the study. Two instruments of creativity assessment scale (CAS) and that of work task motivation scale for teachers (WTMST) were used. Pearson Product Moment Correlation Coefficient is used to analyze the data. The results revealed that significant relationship exist between teachers creative flexibility and students flexibility in creativity among Secondary Schools in Zaria Educational Zone(r=0.996, p=0.000).Result also showed that significant relationship exists between teacher originality and student originality in creativity among Secondary Schools in Zaria Educational Zone(r=0.862, p=0.000).Overall result showed that significant relationship exist between teacher creative fluency and students fluency in creativity(r=0.388, p=0.000). Significant relationship exists between teacher motivation and students flexibility in creativity (r=0.979, p=0.000). Significant relationship also exists between teacher motivation and students originality in creativity (r=0.979, p=0.000).Again, significant relationship exists between teachers motivation and students creative fluency (t=0.0979, p=0.00). Among the recommendations offered are as follow; Need to promote teacher creative flexibility so as to positively relate to students creative fluency though which creativity developed. Need to promote teacher creative originality so as to raise students creative originality so that creativity enhanced.

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Operational Definition of Terms

Below are the key variables which are operationally defined as follows:

Creative person	refers to an individual who has the ability to produce ideas in non conventional way, however in creative originality, flexibility and fluency.
Teacher motivation	refers to stimulation which energies and directs teacher's behavior and participation in teaching activities and to function well in his/her work-place.

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CHAPTER ONE

INTRODUCTION

1.1 **Background to the Study**

In the rapidly changing environment of Nigeria, educators as well as all stake holders in education recognize the importance of motivation and creativity in teaching and learning. Perhaps this is one of the reason why National Policy on Education (2005) captured the need for inculcating and nurturing creativity in students particularly children. In this process, it is the responsibility of the teachers to provide positive growth of students' endowed abilities to the best of their capabilities. This is in line with the psychologists' assumption that all individuals with healthy brains have some degree of creative potential however individuals vary in how much novelty they became in generating ideas (Sternberg, 1999). Creative potential may be seen as the creative capacity, skills and abilities that the individual possesses (Hinton, 1970). Creative potential include having talent or expertise to do well in one's work and possessing the ability to take risk by trying out new ideas (Amobile, Burnside, & Gryskiewicz, 1999).

For this reason, most psychologists believe that the progress and prosperity of nation depends on the development of creative potential of its people (Aggarwal 2007). This is because creative individuals are endowed with abilities to visualize, foresee, and generate ideas. Undoubtedly, the right place to nurture creativity is the school by the direction of a classroom teacher. Although, the potentially creative persons may be minority within every class or school but their contributions in terms of human development, if well guided and nurtured is undoubtedly relevant. Unfortunately, they suffer from serious neglect from most teachers of the world in which Nigerian teachers of formal education system inclusive. This is because they have certain characteristics that include non-conformity to authority, annoying curiosity, not

regarding their teachers' teaching information as challenging and preferred to be self independents. Thus, they are unpopular to their teachers. In turn, this problem may affect them negatively and their ability as well.

As a result, there is every need for teachers to recognize and understand the characteristics of potentially creative individuals that enable them nurture their unconventional way of thinking and learning. Within the domain of students learning, teachers can serve as facilitators or inhibitors of creativity and therefore, play important role in the development of creative skills within the educational system (Sternberg, 2003). Creative teachers is the one who is aware of, and values human attribute of creativity in themselves and seeks to promote it in others, and have a creative state of mind which is actively exercised and developed in practice (Cremin, 2009).

With this in mind, it is expected that teachers who themselves have wide unusual variety of interest, and who like to engage in sharing them with their students be it in or out of the stipulated timetabled schools hours, who themselves have sound ability to generate ideas and enjoy playing with them during and after class lessons, who possess enquiring minds of asking and listening to questions, would seem much more likely consolidate creative potentials development of their students than teachers who are rigid and do not have these mentioned characteristics. In other words teachers with creativity abilities/skills would perhaps be better in nurturing students' creative potentials than those without it. It will be interesting therefore to know how teacher creativity could influence students' creativity.

It has also been observed that neglecting individuals of potentially creative abilities have consequences because they are not only affective negatively to such people with this special

attributes but have to involve the society in which they live. This ability is an asset of development in every country. Therefore, when creative potential is encouraged the societies of Nigeria will benefit immensely as evidenced in such developed countries as England, India, USA, China, Germany, etc. Teachers may encourage creativity of children (students) by asking open-ended questions, encouraging experimentation and persistence, tolerating children ambiguity, modeling creative thinking and behavior of students.

Obviously, the academic lives of teachers are challenging and complex. In line with the mission of schooling, teachers are expected to engage in planning academic activities, teach / instruct to meet standards of intellectual demands of their students as established by educational policies. Each day at school, the teacher is expected to prepare adequately for every lesson. Central to achieving effective classroom teaching is teacher motivation, which is the energy he puts in these tasks, the beliefs, values and goals that determine which tasks should he emphasize and persist in achieving them.

Teacher motivation plays a considerably important role in the promotion of teaching and learning excellence. Generally, motivated teachers are more likely to motivate students to learn in the classroom, to ensure the implementation of educational reforms and feelings of satisfaction and fulfillment. While teacher motivation is fundamental to the teaching and learning process, several teachers are not highly motivated. This observation should be taken seriously and an investigation into the factors influencing teacher motivation was therefore necessary to achieve the educational goals in every learning institution. In recent propositions about teacher motivation, self-determination approach concerning the role of motivation in work place is also applied in teaching and learning. It includes autonomous motivation and controlled motivation. Autonomous motivation involves engaging in activity with eagerness and volition, with a sense

of choice and willingness. It is made up of two subtypes: that is intrinsic motivation, which is doing a task because it is interesting and spontaneously satisfied and identified regulation/motivation which is an internalized form of extrinsic motivation and involves doing the task because it is personally important.

On the other hand, controlled motivation involves doing a task with a sense of pressure, demand or coercion. It is also comprises two subtypes of extrinsic motivation that have not been well internalized, external regulation/motivation which is doing an action to obtain reward or avoid punishment, and introjected regulation/motivation which result from partial internalization of the extrinsic contingencies as it involves doing activities because the person would feel approved of for doing it, or guilty and unworthy for not. Finally on this self-determined continuum is amotivation which is being neither intrinsically nor extrinsically motivated as an individual may engage in a particular work without understanding the reason why he does such work. Teachers autonomy support may represent acts of instruction to identify, nurture and develop student's motivational resources, such as their interests, preferences, goals and psychological needs (Reeve, 2006). It appears that students who are highly motivated and autonomous in school may elicit more autonomy support from their teachers, whereas students who are more distracted and less motivated may elicit more controlling behaviors from the teachers.

Teacher motivation appears crucial for optimal human functioning in the work place because teachers who are highly motivated are said to be more engaged in their work and satisfied (Fernet, Senecal, Guay, Marsh, & Dowson, 2008).The motivation of teachers is therefore very important as it may directly affect the students' learning. Paherps, autonomous motivation, in which students read, study, and discuss their work out of interest and the belief in

its importance for themselves, is the optimal motivation for deep learning, and creativity. It is also clear that this optimal motivation requires teachers to provide supports that allow students to satisfy their basic needs for feeling competence, relatedness, and autonomy by encouraging the students' initiations, respecting them as individuals, listening to their perspectives, creating opportunities for choice and self-regulation, helping out when they run into barriers, and providing positive and constructive feedback. In these ways, teachers will be supporting students' motivation, engagement, achievement, and psychological well-being. When conditions allow teachers to satisfy their own needs for autonomy on the job, schools may be characterized by more effective teaching and learning. The underscore of it may positively affect the nation in terms of development. Therefore, it neglecting may deter nation development. Motivated teacher's contribution in effective teaching serves as an optimistic future of every students and nation in general. It is within the interest of this research to investigate the influence of teachers' creativity skills and motivation on students' creative potentialities among secondary schools Zaria Educational Zone.

1.2 Statement of the problem

Creativity development has been gradually diminishing in most formal educational system of Nigeria particularly secondary schools. Numerous factors are responsible for this problem in which methodology adopted by most of the teachers perhaps considered as the paramount reason against development of students' creative potentials. As a result of their unique potentialities, such students are handled as deviants in the classrooms by the teachers due to their unusual way of learning and creative thinking capabilities.

Literatures have shown that the potentially creative students many a times experience serious neglect and be at disadvantage in the class because they are not popular with their teachers. This perhaps results into perpetual failure of students in public examination. Thus, the rate may be as a result of failure to give recognition to these issues of creativity in schools and the curriculum in use.

However, crucial national problems that face our country Nigeria today have their potential resolutions among these creative minorities who have the ability to make and give original, significant, and useful ideas on critical issues of our national life. For example, the nagging problems of slow growth of technological applications in all spheres of living could no doubt be handled by the potentially creative individuals in Nigeria because they have the ability to coin novel solutions squarely. Unfortunately, very few studies in this area of psychology can be found in this country which apparently led to the need for the present study.

On the other hand, it is observed that secondary schools' teachers suffer from lack of work motivation in their respective working places. These may include inadequate salaries, insufficient accommodation, job insecurity, lack of professional workshop for teachers, poor provision of teaching facilities among others. This scenario is likely to influence students' learning and development of creative potentials in them. This situation therefore calls for empirical investigation which led to the thrust of this research to find out whether teacher creativity and teacher work motivation can influence students' creativity at Secondary Schools level in Zaria Educational Zone.

1.3 Objectives of Research

The objectives of this study are as follows;

1. To find out whether teacher flexibility in creativity relate students' flexibility in creativity.

2. To find out whether teacher originality in creativity relate students' originality in creativity.

3. To find out whether teacher fluency in creativity relate students' fluency in creativity.

4. To find out whether teacher motivation relate students' flexibility in creativity.

5. To find out whether teacher motivation relate students' originality in creativity.

6. To find out whether teacher motivation relate students' fluency in creativity.

1.4 Research Questions

For the purpose of this investigation, the following research questions are formulated:

1. To what extent does teacher flexibility in creativity relate students' flexibility in creativity?

2. How can teacher originality in creativity relate students' originality in creativity?

3. How can teacher fluency in creativity relate students' fluency in creativity?

4. To what extent does teacher motivation relate students' flexibility in creativity?

5. To what extent does teacher motivation relate students' originality in creativity?

6. To what extent does teacher motivation relate students' fluency in creativity?

1.4 Hypotheses

The following hypotheses have been formulated to help in carrying out this research

1. There is no significant relationship between teachers' flexibility in creativity and students' flexibility in creativity.

2. There is no significant relationship between teachers' originality in creativity and students' originality in creativity.

3. There is no significant relationship between teachers' fluency in creativity and students' fluency in creativity.

4 There is no significant relationship of teacher motivation on students' flexibility in creativity.

5. There is no significant relationship of teacher motivation on students' originality in creativity.

6. There is no significant relationship of teacher motivation on students' fluency in creativity.

1.5 Basic assumptions of the study

1. It is assumed that teachers' flexibility in creativity can relate students' flexibility in creativity.

2. It is assumed that teacher originality in creativity can relate students' originality in creativity.

3. It is assumed that teacher fluency in creativity can relate students' fluency in creativity.

4. It is assumed that teacher work motivation can relate students' flexibility in creativity.

5. It is assumed that teacher work motivation can relate students' originality in creativity.

6. It is assumed that teacher work motivation can relate students' fluency in creativity.

1.6 Significance of the study

The present study is particularly important to teachers, principals, educationists, curriculum planners, examination bodies, curriculum implementers, parents, societies, and all tiers of government. For example each of the above mentioned group could benefit from this study as follows;

The government: Nigerian government faces challenges of modern changes in all spheres of living. For instance, Nigeria is presently dived into serious problem of insecurity which ruins well-being of her populace. It is therefore hoped that this study findings help the government to understand the originality and flexibility ability of creative individuals in approaching problems divergently. Likewise in areas such as agriculture, education, economy, politics or governance, they have their idiosyncratic nature of thinking that can result in solving any serious problems or challenges.

Teachers and Educationists: For the teachers in particular, this study adds to their professional efficiency in dealing with students of different learning ability through which equal regard is practiced among the students. This study also hopes to be useful to educationists as available information on characteristics of potentially creative person would be provided. This may enable them to make appropriate plans in order to enhance such qualities.

Curriculum planners and Examination bodies: On the part of curriculum experts, the study hopes to intimate and stimulate them to ensure the curriculum capture creative persons while planning because of their unconventional approaches. For examination bodies, recommendations to the study will be helpful in the standardization and accreditations of examination questions to reflect students' as well as teachers' creativity.

Parents and Societies: On the part of the parents and the societies, the study hopes to reduce a sense of dismay towards creative persons because of their unconventional approaches in learning.

Moreover, this study hopes that the government, administrators, parents and principals should understand the different roles of teachers in imparting sound education to the children. Providing an enabling environment for uplift teachers' motivation and creativity would go a long way to improve ways of our educational systems. In fact, motivation for teachers in their working places are very vital to successful attainment of students and excellent future of students of Arts, Sciences and Technology depend greatly on it.

1.7 Scope and Delimitation of the study

The focus of this research work is to investigate on the following variables; that is teacher creativity and teacher motivation and students' creativity. The study location is the Zaria Educational Zone. This study is delimited to ten selected secondary schools available in the zone. The Teachers of the same ten selected were also be used for the study.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

2.1 Introduction

This chapter presents a review of literature based on the following headings:

2.2 Conceptual Framework

2.2.1 Concept of creativity

2.2.2 Concept of motivation

2.3 Teacher Creativity and Students' Creative potentials

2.3.1 Relationship between Motivation and Creativity

2.4 Theoretical Framework

2.4.1Componential theory of creativity

2.4.2 Theory of personal creativity

2.4.3 Maslow's Theory of Needs

2.4.4 Theory of Achievement Motivation

2.4.5 Self Determination Theory

2.5 Review of Empirical Studies

2.6 Uniqueness of the study

2.7 Summary

2.2 Conceptual Framework

2.2.1 Concept of creativity

The concept of creativity has in recent decades been a popular one in education. Since the 1990s, creativity has been recognized as an important skill that should be developed at educational institutions (Craft & Jeffrey, 2008). In fact, it is a very precious and unique quality in an individual that enables him to solve complicated problems in different works of life. Psychologists' attempt to define creativity has proved to be one of the most difficult tasks. Therefore, there are several definition of creativity in many literatures depending on the assumption of an individual(s) concerning the factors or combined abilities that may best describe this concept.

Nese (2014) view creativity as the skills of accepting transformation and innovations, the desire to play with ideas and possibilities, flexibility in outlook and enjoying the best. Sak (2011) posited that creativity is a skill that can be taught and learned due to its transforming nature, although it involves individual differences. Harris (1998) as cited in Nese (2014) described creativity as the skill to design or produce something novel. He further asserted that, creativity is not merely designing something that has not existed before however, it is the skills of producing novel ideas by transforming, connecting and utilizing the existing ideas.

Creativity is described by Drevdahl (1958) as cited in Aggarwal (2007) as the capacity of a person to produced composition, productions or ideas which are essentially new or novel and previously unknown to the producer. According to Amobile (2012), creativity is the production of a novel and appropriate response, product, or solution to open-ended task. Although the response or product is expected to be new but it must be useful and appropriate to the task to be

completed or the problem to be solved, that is, it must be valuable, correct, possible and/or somewhat fitting to a particular goal. To her, a response or product is creative to the extent that is seen as creative by people familiar with the domain in which it was produced.

Plucker, Beghetto, and Dow, (2004) in the result of their meta-analysis of multidisciplinary article about creativity, defined it as the interaction among aptitude, process, and environment by which an individual or group produces a perceptible product that is both novel and useful as determined within a social context. Their definition characterized creativity as active rather than static, that environment has a role on it, and that creativity is rooted within a specifically certain context. This is partly in line with the believe of Amobile (1997) who reported that all humans with normal capacity are able to produce at least moderately creative work in some domain many a times and that the social environment, that is (the work environment) can influence both the level and frequency of creative behavior. Csikszentmihalyi (1996) also has emphasized the importance of environment in promoting creativity.

Guildfold (1950) in his view described creativity as including factors such as: sensitivity to problems, fluency, flexibility of the mind, analyzing abilities, reorganization, complexity, and evaluation. To him fluency refers to the ability to produce a great number of ideas in short period of time. Reorganization includes the ability to transform an existing object for the purpose of another function. Complexity refers to the ability to consider multiple variables while solving problems. Flexibility is the ability to produce a variety of approaches to solve a problem. Creative individuals possess flexibility ability which is described by Runco, (1986) as the tendency to generate heterogeneous pool of responses or diverse use of categories and themes when producing ideas. Flexibility enables one to consider alternatives at the sometimes. Runco

(2004) believes that, this flexibility is what gave them the capacity to cope with advances, opportunities, and changes that are part of our daily actions.

Another trait of creative individual is originality which is the ability to come up with statistically novel or unusual ideas. This trait is characterized by cleverness, remoteness, and uncommonness of association (Christensen, Guildford, & Wilson, 1957).

Aggarwal (2007) defined creativity as the ability or capacity of a person to discover and explore new areas to create or produce new idea, or theory or object including re-arranging or reshaping of what is already exists. According to him creativity as a concept seems to fall under four categories; that is (1) the person who creates, (2) mental processes asserting within the person who creates, (3) cultural and environmental factors working on the creator and (4) products of creativity which for example include poems, paintings, theories and innovations.

Going with the above conceptual definitions of creativity, we can understand that creation and discovery of something new is the core element in its explanation. Therefore it could be observed that creativity is the ability of an individual to identify, discover, create or produce novel idea or object including re-developing or re-inventing of new useful ideas or products.

Many research showed that for a creative learning environment to function as an appropriate atmosphere in nurturing potentially creative students, teachers' creativity skills and their creative teaching are key component in this domain (Hosseini, 2002,; Torrance, 1990, Murduck, 2003,; Sternberg and Williams, 1996,; Seo, Kim and Lee, 2005). The fact is that, when teachers encourage their students, provide opportunities for them to think divergently, and also create for them an enabling environment to engage in creative activities, they are more likely to unearth the creative potential in them.

Yamamoto (1964) described creative teachers as those who have more ideas about improving educational situation and flexibility in adjusting their method to the demand of students and of the environment. Fryer (1996) as cited in Nyarko, Akenten, and Abdul-Nasiru (2013) observed that teachers in the United Kingdom who were eager in promoting the creative potential of their students also emphasize the value of a whole school commitment to creative education. Obviously, the more teachers underscore the significance of creativity in its relation to learning, the better equipped they are to enhance their students' creativity.

Cremin (2009) described creative teacher as professionally independent, curious and are aware of themselves as creative beings. According to her, they are model, demonstrate, and foster a questioning stance and the making of connection, and a marked degree of autonomy and ownership; in the process they value and nurture originality and generation/evaluation of ideas. Obviously, through such practice they seek to energies the creative disposition of their students.

Creative teachers consider the development of creativity and originality as the distinguishing feature of their teaching. Thus, they recognize their own creativity and seek to develop such as creative mindset in their students.

In the recent careful scrutiny research of three dimension of creative practice in the classroom of creative teachers, suggests the presence of personal qualities, pedagogical strategies, and different kind of ethos. Grainger, Barnes, and Scoffham (2006) in their examination of these three dimensions of the classrooms of creative teachers with teacher of 4 – 16 years old, revealed that five core characteristics were in evident in each the personal qualities, pedagogy and ethos. These include curiosity and question stance, connection making, originality, autonomy and ownership, and developing sense of themselves as creative people and at the same

time creative educators. In this sense, it means educators who consciously use their own creative capacity in the classroom context.

Curiosity and questioning stance in the dimension of personal quality of creative teachers has to do with the demonstrating curiosity and genuine desire to learn. These kinds of individual are likely have a wide capacity of personal interest and knowledge of the wider world and are likely to share their enquiring stance with their students. Therefore, they reflect on issues in their classroom conversations in a genuinely open and interested manner. Normally, their interest in and curious about the children is as people and learners.

In the domain of pedagogy, (Chappell, Craft, Burnard, and Cremin, 2008) opined that creative teachers make extensive use of large framing questions and employ a speculative stance in the classroom regardless of the subject domain or the age of the learners. Such teachers by using generative question, inculcating further interest, setting enquiring mind and thinking, encourage their students to identify and share their own questions possibly through brainstorming and as well, this will allow the students to carry out research based on their own enquiries in small groups. In the area of ethos, research indicated that creative teachers tend to be positive, secure and inclusive, encouraging the articulation of tentative and reflective questions in the whole-class and small group conversational contexts.

Making connection based on dimension of personal quality of creative teachers has to do with having sufficient knowledge about their students' interests and passion and therefore perceive this as essential knowledge in order to make connections, that is why they make connection as the central, both the craft of teaching and to themselves as individuals. Most a

times, they committed to personalizing teaching and model the process of sense making through multiple imaginative connections in whole-class and small-group context (Cremin, 2009).

Pedagogically, creative teachers seek to avoid the limiting nature of subject boundaries and frequent reference to other subjects and to the world the school gate. They create avenue of consulting prior knowledge, allow huge opportunities for students to work collaboratively in order to widen their perspectives. By so doing, their students are encouraged to relate their learning between subjects and within subjects and often ensure connection with the children's likes outside school environment. Ultimately, this appears to increase the relevance of the curriculum to learners. Based on the ethos' connection, creative teachers acknowledge the right of their students of creative ability by taking into cognizance their emotional comfort although they are aware of the requirement of the curriculum. Thus, they shape the curriculum in response to learners that have creative potential.

Concerning autonomy and ownership, the dimension of personal quality of creative teachers realizes a considerable degree of ownership with regards to planning, teaching and assessment. This is due to the fact that, they make use of professional autonomy in the classroom and demonstrate both flexibility and confidence in asserting their desire to create a co-constructed curriculum that will both recognize the learners' interest and that of curriculum requirement.

Pedagogically, creative professionals focus explicitly on the development of children's autonomy. Their seeking to share ownership gives the students the ability to identify areas for enquiring and possibilities to investigate and review. Runco (2003) argued that teachers should show an interest in children's creative potentials and encourage children to construct their own personal interpretations of knowledge and events. On the issues of classroom ethos of creative

teachers/professionals, also reflect the sense of autonomy as such students are expected to take shared responsibility in developing their own nature of learning. This is because they are regarded as classroom participants who have to make decisions by themselves that will suit their ability in utilizing the available resources to accomplish their task provided in the time table.

Originality development of creative teachers based on the identified dimension of personal quality, pedagogy, and ethos, suggest that such teachers are ready to take risk, remain open to new ideas and share any inventive production they develop. Cremin (2009) opined that through involvement in the creative process of generating and evaluating ideas, creative teaches seek to develop their creative disposition and enhance their ability to be inventive educators. Creative teachers do engage in classroom activities such as; experimenting, and generating ideas as students do. These works model serve as the considerable stimulations to students' inventive ideas and practices in the classroom.

Hennessey (1997) opined that teachers have to show their concern on importance of creativity by actively engaging in it. Moreover, they underscore unconventional ideas seen in their students' initiatives and appreciate such in order to enhance creative thinking ability in them. It is clear that creative teacher in both their planning and teaching are alert to the potential mental connection between imagination and personal/professional experience and attribute high value to curiosity and risk-taking to ownership and autonomy and to the development of imaginative and unusual ideas in both themselves and their children (Cremin , 2009).

Psychologists considered those who frequently have higher scores on open-ended tests as potentially creative persons and those who frequently have higher scores on intelligent test as

intelligent one. Thus, the former may be seen as diverger, while the latter as converger. Even though this view did not mean that creative persons are not intelligent individuals or intelligent one are not creative. To this light, it is perhaps compatible to argue that children creative potential, especially students is much recognized through paper-pencil tests. In other words, their divergent thinking ability is the main factor to determine their creative potentials. According to Guilford (1959) as cited by Aggarwal (2007), creative thinking means divergent thinking and uncreative thinking means convergent thinking. Guilford (1950) has psychometrically assessed the creative potential of children that is students from the consideration of factor analysis. He argued that there four different abilities that play different roles in creative operations, for example, Fluency, Flexibility, Originality and Elaboration (Mukherjee, 2002). For these abilities to take place, undoubtedly require intensive divergent thinking.

One mental note to be exercise in relation to creative potentials of children is the observation of Runco (2003) where he talks on originality in relation to children performances. Runco (2003) clearly asserted that when we are interested in children it is creative potential that is the primary concern rather than unambiguous creative performances. Furthermore, he considers originality as something that is without any doubt required for creativity, however, the creative efforts of children for example are often original and meaningful for youngsters but not in comparison with some larger norms. To him, one reflects the possibility that creative expression is sometimes personal and not easily compared with normative standards.

In the field of creativity, there were several attempts by many researchers who made researched and studied on the unique abilities and characteristics associated with creative behaviors. According to Zilch (2013), the study of creative personality can be divided into three categories. The first one is personality and motivational characteristics refer to the traits and

personal qualities that contribute to their creative potential, the second one is the cognitive abilities which are thinking skills associated with creative individuals. The last one is the developmental events refers to the life experiences and event that influence creative potential.

Probably, the most intensive investigation of creative personality was the one undertaken by the Institution for Personality Assessment and Research (IPAR) of the University of Califonia at Berkelely in (1978) under the direction of Donald Mackinnon (Zilch, 2013). Mackinnon and his colleagues (1978) following the tests and measurements done at (IPAR) provided much important data about the creative personality. In these traits of creative persons, the most salient characteristics of all the creative people were:

1) Intelligent
2) Independent in thought and action
3) Intuitive
4) Have a strong sense of destiny
5) Original
6) Open to experience, both the inner self and the outer world
7) Have strong theoretical and aesthetic interest

Based on Mackinnon's (1978) investigation, we can say that creative people are intelligent, but the reverse may not be true. Think about some of the intelligent people you know, do you remember ever meeting one who is not very creative? Or cannot use her/his imagination very well? Intelligence does not necessarily mean having creative, yet most creative people have to have a fair amount of intelligence.

In the assertion that creative people are original, MacKinnon (1978) further states that you must take into account two very important variables about the creative person and they are: the number of the ideas the person produces, and the quality of those ideas. It is important to be able to generate many ideas as a creative individual and yet it is equally important to come up with ideas that have value and merit.

The following statement can also be representative of the creative person, "creative persons are independent in thought and action". Many individuals who are creative tend to be very independent and at times, strong willed. This independence for some creative individuals may be personally more rewarding. Independence tends to act as a motivator, and in some instances, it acts upon that inner drive within us.

Creative persons are especially open to experience, both of the inner self and of the outer world (MacKinnon, 1978). Many times we may feel that some of our actions are too risky or may be too dangerous to pursue. Yet many creative people are risk takers. They try new ways to do different tasks, and are open to whatever experiences they encounter.

MacKinnon (1978) in his work asserted that "Creative people are intuitive." He also stated that this is a form of intuitive perception. As creative individuals, we may look beyond the meaning of something to further understand or find its symbolic representation. Intuitive people tend to look beyond what is immediately observable to find deeper meaning.

Another trait discussed by MacKinnon (1978) of the creative personality is the need for strong theoretical and aesthetic interests. Aesthetics are usually very important to the creative person, it is that need for beauty in ones' life and its relationship to that person. Therefore creative persons can usually see the meaning of the aesthetics that exists within her/his life. The

same belief holds true with theory and theoretical conceptualization. As creative persons many are enthralled with theoretical concepts. Theory can have a strong emphasis in their lives and beliefs. While creative personalities may tend to be strongly influenced by concrete realities, many are influenced by those middle grounds that have no clear end.

Finally, MacKinnon (1976) stated that "the creative person has a strong sense of destiny." As we go through our lives, there are times in which we examine the issue of destiny. In many instances when creative people look back upon their lives, there are aspects of it that were meant to happen, and destiny has played a significant role in their decision making. Yet, logic must also play a role, and to a certain extent, both have significant contributions to how creative individuals work, play and live.

Another researcher who interested in the creative personality was Torrance (1962). In his research and working with children, Torrance reviewed different studies that used characteristics to differentiate between highly creative persons from less creative ones. These characteristics were based on much of the work he did with a number of personality inventories. Therefore, the listed characteristics below are descriptors of the creative personality as worked out by Torrance (1962):

1. Accepts disarray
2. Not always popular
3. Adventurous
4. Odd habit
5. Strong affection
6. Persistent
7. Altruistic
8. Become preoccupied with a problem
9. Awareness of others, likes solitude
10. Preference for complex ideas/concepts

11. Always baffled by something 12. Questioning

13. Attracted to disorder 14. Radical

15. Attracted to mysterious 16. Receptive to external stimuli

17. Attempts arduous jobs 18. Receptive to others' ideas

19. Bashful outwardly 20. Regresses occasionally

21. Constructive criticism employed 22. Use rejection or suppression to control impulses

23. Courageous 24. Refuse to repress

25. Deep conscientious convictions intuitive 26. Reserved

27. Defies conventions of courtesy 28. Resolute

29. Defies conventions of health 30. Self assertive

31. Desires to excel 32. Self starter

33. Steadfast 34. Self aware

35. Differentiated value hierarchy 36. Self confident

37. Discontented 38. Self sufficient

39. Disturbs organization 40. Sense of beauty

41. Dominant (not in power sense 42. Sense of humor

43. Emotional 44. Shuns power

45. Emotionally sensitive 46. Sincere

47. Believes in destiny

48. Uninterested in small details

49. A fault-finder

50. Speculative

51. Doesn't fear being thought "different"

52. Spirited in disagreement

53. Feels whole parade is out of step

54. Strives for distant goals

55. Fullz of curiosity

56. Stubborn

57. Appear haughty/self satisfied at times

58. Temperamental

59. Likes solitude

60. Tenacious

61. Independence in judgment

62. Tender emotions

63. Independent thinker

64. Timid

65. Individualistic

66. Tireless

67. Intuitive

68. Thorough

69. Industrious

70. Unconcerned about power

71. Introversion

72. May seem uncultured, primitive

73. Keeps unusual hours

74. Unsophisticated, naive

75. Lacks business ability

76. Unwilling to accept on mere say so

77. Makes mistakes

78. Visionary

79. Never bored

80. Versatile

81. Non conformist 82. Risk-taker

83. Not hostile or negative 84. To some extent withdrawn and quiescent

Brolin (1992) in his own words summarized following characteristics as that of creative persons:

1. Strong motivation
2. Endurance
3. Intellectual curiosity
4. Deep commitment
5. Independence in thought and action
6. Strong desire for self-realization
7. Strong sense of self
8. Strong self-confidence
9. openness to impression from within and without
10. attracted to complexity and obscurity
11. High sensitivity
12. High capacity for emotional involvement in their investigations.

By examining the aforementioned characteristics, one may see the main reason why teachers who are not creative and did not know the characteristics of potentially creative students find it difficult to regard such students as conformists and successful in their academics. On the other hand, creative teachers based on their potentialities may positively influence their students.

Researchers contributed immensely on how creativity of students could be nurtured in classroom, although potentially creative individuals have unconventional ways of perceiving

things which make them very unique and special. Fontana (1981) opined that the first and fundamental point in encouraging creativity in the classroom is to be open to its operation and that the second one must be concerned with the nature of classroom organization itself. Beghetto (2006) underscored the key roles teachers play. According to him, students experience within classroom is greatly influence by their perceptions of how teachers relate to them. Teachers who maintain positive relationships, with a genuine interest in and respectful acceptance of students' skill levels, are effective in the development of creativity (Sternberg & Williams, 1996)

Basically, potentially creative students appreciate freedom from both teachers and environment that allow them to practice their unique abilities in the classroom as observed by many researchers. For example, Wallach (1970) posited that creative adults appear in general to have been exposed in childhood to a rich variety of experience, and to an environment in which they were encouraged to ask questions, to test out their ideas by active experimentation, and also to pursue their interests through hobbies and through development of special talents and skills.

Seo, Kim, Lee (2005) observed that in the classroom, teachers are capable of promoting creativity in their students if they acquire an improve understanding of the concept themselves. According to Murdock (2003), teachers' intensive understanding of creativity facilitates the development of strategies for enhancing creativity and the creation of educational programs that focus on creativity.

In summary, understanding the basic centrality in the definition of creativity as a concept, one can observe the intensive stress on appropriateness and usefulness in thinking, process or product that come into being as result of any creative effort. Furthermore, creativity description

comprises four important components ranging from a person who creates, his mental process, the supportive environment for exercising his talent and the product(s) of creative work.

Furthermore, creative teachers are those individuals described as professionally independent, curious and are aware by themselves as creative being and consider development of creativity and originality as the distinguishing feature of their teaching, Thus they recognized their creativity and seek to develop such as creative mindset in their students. It is clear that, creative teachers in both their planning and teaching are alert to the potential mental connection between imagination and personal/ professional experience and attribute high value to curiosity and risk-taking to ownership and autonomy and to the development of imaginative and unusual ideas in both themselves and their children.

Moreover, it is believed that four different abilities play important role in creative operations. These include fluency, flexibility, originality and elaboration which all are exercised properly with the use of divergent thinking, and that in children is normally manifest or identify through paper-pencil test.

Therefore, this review is relevant to the study in the sense that it elaborates the fundamental characteristics of creativity and creative potentials which enable teachers to easily find those members with such traits in their students. In addition, it revealed nature of originality in children which is better to be assessed in relation to their level and thinking capacity not in comparing with normative standards.

2.2.2 Concept of Motivation

Educational psychologists have for many decades realized the effect of motivation in an organism to perform an act in a certain way. The fact is that, motivation is one of the most basic

elements of human behavior that cause people to behave in a particular way in order to accomplish particular goals and purposes. Moreover, human motivation is a complex and well studied field that has broad roots in a diverse collection of academic disciplines in which psychology is included. To this end, the concept of motivation, the types of motivation and the teacher motivation will be discussed.

Mukherjee (2002) described motivation as a phenomena involved in the operation of drives, incentives, and motive. He further believed motive as an affective conative factor which operates in determining the direction of an individual's behavior towards an end or goal, consciously apprehended, or unconscious. All human behaviors appear to arise in response to some form of internal (physiological) or external (environmental) stimulation. The behaviors, however, are not random. They often involve some purpose or goal.

Robbins (1991) described motivation as willingness to exert high level of effort towards organizational goals conditioned by the efforts and abilities to satisfy some individual needs''. Individuals with high motivation tend to do well in all their actions even if such actions are difficult in nature. Masgoret and Gardner (2003) in their view explained that the motivated individual extends effort, is persistent and attentive to the task at hand, has goals desires, and aspirations, enjoys the activity, experiences reinforcement from success and is appointment from failure, makes attributions concerning success and/or failure, is aroused, and makes use of strategies to aid in achieving goals. That is, the motivated individual exhibits many behaviors, feelings, cognitions, etc., that the individual who is unmotivated does not.

Lai (2011) opined that motivation involves a constellation of beliefs, perceptions, values, interests, and actions that are all closely related. As a result, various approaches to motivation can focus on cognitive behaviors (such as monitoring and strategy use), and non-cognitive

aspects (such as perceptions, beliefs, and attitudes), or both. For example, Gottfried (1990) defines academic motivation as "enjoyment of school learning characterized by a mastery orientation, curiosity, persistence, the learning of challenging, difficult, and novel tasks". On the other hand, Turner (1995) considers motivation to be synonymous with cognitive engagement, which he defines as "voluntary uses of high-level self-regulated learning strategies, such as paying attention, connection, planning, and monitoring"

Motivation plays an important role in directing human behavior. There are several characteristics of motivation. First, it pushes us to reach the goals we have set for ourselves. In order to reach our goals we need to be aroused or feel activated. Too little arousal will make us feel dull and relaxed, whereas, too much arousal may make us withdraw from our goal. Hence we must be motivated to maintain balance or optimum level of arousal. Second, people are motivated to behave in certain ways because of the pleasing and pleasant properties of external stimuli, such as, money, good grades, and food, which motivate the person to act in a purposeful manner. Third, motivation is the result of the person's thoughts and expectations. These can be of two kinds which psychologists mentioned them as types of motivation: Intrinsic motivation and extrinsic motivation.

Intrinsic motivation comes from within the person, based on personal enjoyment of any task, and the extrinsic motivation is based on external rewards such as praise, money, pay and grades. Intrinsic motivation, deriving from within the person or from the activity itself, positively affects behavior, performance, and well being (Ryan & Deci, 2000). Extrinsic motivation on the other hand, results from the attainment of externally administered rewards, including pay, material possessions, prestige, and positive evaluations among others.

Kayode, Akande, and Abdurrashid (2004) posited that intrinsic motivation is the biologically inherent will-drive or tendency to perform an act. According to their view, the best example of motivation is curiosity. Curiosity is necessary for survival. On the other hand, extrinsic motivation is explained by Edigin (2005) as 'forces which exist outside the individuals as well as factors controlled by the super-ordinate'. These include appropriate salary, Conducive working environment, policies, recognition, and promotion. Most researchers validated intrinsic motivation as the best in regulating human behavior, however both the intrinsic motivation and extrinsic motivation play significant role in shaping human performances.

Ideally, motivation has certain basics that vividly explained its functions in human beings. These are; motive, drives, incentives, interest, curiosity, goal, arouser, and expectancy (Aggarwal, 2007).

Teacher motivation plays an important role and serves as one of the major determinant in promoting teaching and students' learning excellence. Research showed that motivated teachers are more likely to motivate students to learn in the classroom, to ensure the implementation of educational reforms and feelings of satisfaction and fulfillment. Mertler (1992) opined that teachers are generally more productive and can influence students' achievement. On the other hand, lack of effective motivation of teaches is manifested in an individual indifference to learning Cohon (2001) as cited in Akpan (2013). This means that such students may show lack of interest in their learning by nonchalant attitude towards their study and frequent running way from school as a result of teachers' inappropriate motivation to work. As it is examined earlier that motivation in individual may manifest from two perspectives; intrinsic and extrinsic motivation which researchers described both as important, are very fundamental to teacher in teaching-learning process.

In sum, motivation is considered as a stimulant action in any organism which may be intrinsic (happen as a result of internal cause or interest) or extrinsic (happen as a result of external cause or force). Teacher motivation is seem crucial in educational setting because it may affect students' motivation. Those teachers who are highly motivated are expected to perform optimum in their work place.

2.3 Teacher Creativity and Students' Creative potentials

Appropriate Interaction involving teachers, students and teaching methods seems to represent the process of classroom learning. Shu'aibu (2000) opined that creativity is encouraged in the classroom whenever teachers and students respond to one another's creative needs. Therefore the need for teacher to understand creative needs of the students is very much pertinent. Assareh, Ghahremani, Abaspour and Abadi (2013) described that creative person succeed more in training of creativity than non-creative one. They further asserted that creative teachers both act as example of creativity and improve process of creativity. This is because such class may give freedom of creative activities to students in order to either discover or invent something significant. They welcome unexpected questions that even seem unreasonable and strange and eventually they try to identify and employed what causes developing creativity both in students and themselves.

Yamamoto (1967) asserted that there is a square assumption that the creative individuals are sensitive to problems, fluent with ideas, and flexible in their ideas. Thus, he further made the predictions about the classroom behavior of creative teachers that the more creative teachers are more sensitive than their less creative colleagues to pupils' needs and to environmental defects that detract from the effectiveness of their pupils' educational experiences. The more creative teachers have more ideas about improving educational situation and have more flexibility in

adjusting their methods to the demands of pupils and of environment, the more creative teachers are clever in their approaches and always ready to recognize their methods to facilitate pupils' development. In addition, it would then seem likely that the more creative teachers could provide a classroom environment, a climate, and teaching more conducive to pupils' intellectual and social-personal development than the less creative teachers could do. It would also further seem that the more creative pupils would react quite favorably to the sensitive, individualized attention of their creative teachers, while their development would tend to be held back by less sensitive approaches of less creative teachers (Yamamoto, 1967).

One of the most impelling of child's tendency is his curiosity. Indeed, the way his environment (school) in which teachers' role is fundamental, handles his curiosity needs determine to a larger extent how such a child will develop and best utilize his potentialities. For instance, one common nature of the creative child is his persistent tendency to ask questions about things that puzzle him. This is because he may be attracted to the puzzle, the unknown, and the unusual, therefore his string of questions are tremendous as well as frequently embarrassing.

However, many research indicated that this kind of needs are disliked. Nevertheless, recognizing a child's talent for asking difficult and puzzling questions perhaps make him/her find his/her study easy. Such a child may become very close to his teacher and this situation may equally make teaching an exciting venture as flexible teacher achieves much more when his students are guided and allowed to be themselves (Shu'aibu, 2000).

Teachers may perceive good teaching as interactive relationship in which emphasis is on the correctness of the stimulus and the response. However, (Shu'aibu 2000) opined that the creative teacher-potentially creative student relationship is not a stimulus response situation only but involves all the co-operation of both. She further explained that students perform best in an

atmosphere that is relaxed, an atmosphere where an individual's contributions are respected regardless of their merit and where democracy prevails. In addition, when individual (student) needs are recognized and provided for, creativity is stimulated. This fact is not per fetched as Nolen and Nilsholl (1993) opined that this could be achieved through co-operation, interest, promoting and encouraging thought.

To this end one can realized the positive role of teacher creativity skills in nurturing potentially creative students. Teachers that are aware of their creative ability and are very much ready to develop it in their dealing with students, tent to foster creativity in formal education schools.

On the other hand, Thorkilsen, Nolen and Fournier (1994) asserted that students believed that to favor creative thinking and to open room for dialog, teachers must help them attain their full potentials, find them meaningful and they should be treated like thoughtful moral agents.

2.3.1 Relationship between Creativity and Motivation

Creativity and motivation have some basic benefits for individuals and also are very important elements in the development of educational organizations. Although, some variables may positively or negatively influence these key psychological constructs in schools, particularly, junior secondary schools, there is a reason to suspect that the teachers' creativity and motivation have powerful influence on students creative thinking and ability.

Runco &Chand, (1995) as cited in Zilch (2013) suggested that motivation is important for creative thinking and that problem finding would facilitate intrinsic motivation in individuals. As a result an individual will be more motivated when they choose their own tasks. This would make the task meaningful to the individual. They further suggested that educators devote more

time to problem-finding skills to communicate to students that this ability is as important as problem solving. Often, though, extrinsic motivators must be used to foster intrinsic motivation.

Kinai (2j013) also opined that motivation is the core for creativity. He further asserted that self-motivation can lead to success in performing a creative task, because it plays an important role in memory, imagination, and mental activity.

Torrance (1979) in his model for studying and predicting creativity behavior as cited in Zilch (2013), mentioned personal motivation as one of component of creative behavior. Personal motivation according to Amobile (1989) is an inner motivation that drives someone to completion of the task. This type of motivation again, is not one for extrinsic rewards, but a motivation which comes from within, the one that pushes an individual towards success just because of that personal need to just do it. Think about it, has there been a time in your life that you did a task or met a goal because you wanted it? Not for rewards such as money or recognition, but only because it is something you always wanted to do? Although intrinsic motivation may be hard to describe but it emulates a heart feeling of need to come to closure on tasks that are personally relevant (Zilch, 2013). According to (Zilch, 2013), a writer, coming to such closure becomes inherently necessary for the success of the written work. Usually it is not based upon extrinsic motivation such as money or recognition as mentioned above, however it has been based upon contributing to the field that he/she writes within. Some writers contribute for monetary rewards, while many others examine the needs of society or a more personal need from within themselves. Therefore, motivation plays a crucial role in creative production.

Hennessey and Amabile (1987) in Fasco (2001) proposed intrinsic motivation as principle of creativity, which states that intrinsic motivation is conducive to creativity and that extrinsic motivation undermines creativity. They also asserted that this intrinsic motivation is influenced

greatly by situational or state factors. Thus, situational events in one's environment (e.g., school) may affect one's motivation on a task (e.g., problem solving). In fact, Hennessey and Amabile explained that extrinsic constraints, which are factors external to the specific task, could decrease intrinsic motivation and thus decrease creativity.

Consistently, Davidova and Kokina (2007) believed that, it should be emphasized that modern science of psychology has developed a point of view that for a successful productive creative personality, inner motivation is more essential than outer. This means that a personality joins in a creative activity for the sake of the activity itself, but not for the sake of other goals.

The division of motives of a creative personality's activity into inner and outer is only relative, because all motives are inner, they emerge from personality himself. If outer motives are concerned, we must take into account the fact that they are outer one in relation to the creative activity itself but not to the personality. However, essentially, outer and inner motives are closely interconnected. Quite often, these motives not only co-exist, not only compete with each other, but often change one into the other (Davidova & Kokina, 2007).

Horng, Hong, ChangLing, Chang and Chu (2005) as reported by Lapeniene and Dunciene (2012), described five factors influencing teacher creative teaching. These are (a) Motivation, belief in teaching, hard work; (b) personality traits: persistence, willingness to develop, acceptance of new experiences, self-confidence, sense of humor, curiosity, depth of ideas, imagination, etc; (c) family factor: open and tolerant way of teaching children, creative performance of parents, etc; (d) experiences of growth and education: self-created games and stories, brainstorming among classmates, etc and (e) the administrative side of school organization. According to Horng et al. (2005) as cited in Lapeniene and Dumciene (2012), among these factors, motivation, belief in teaching and hard working is the main aspect.

Although, many psychologists validated the importance of intrinsic motivation for creativity, others on the other hand considered some significant role of extrinsic motivation for creativity to certain extent. For example, Davidova and Kokina (2007), in their descriptive list of factors promoting motivation of teacher's creativity activities, mentioned some which are extrinsic in nature.

These factors include; (1) cooperation with pupils, teachers, parents and the society as a whole; (2) creative atmosphere at school; (3) recognition of the activities on the part of school management and education department employees; (4) experience in using creative activity; (5) receiving a material support; (6) implementation of personally important creative ideas, and gaining recognition on the part of colleagues, school management and the society for conducting this. Among these factors almost all are extrinsic in nature however they ranged them as factors that can promote motivation for teachers' creativity activity

2.4 Theoretical Framework

Motivation is one of the most frequent used words in psychology. It entails factors which move or activate the organism to embark on an action. Thus, psychologists have studied human motivation extensively and have derived variety of theories about what motivates people. On the other hand, in the recent competitive world that is characterized with rapid developmental changes, understanding creative capacity and allowing it action is the key to regulate this challenging situation. That is why creativity has become a topic of ever-increasing interest in educational settings (Craft, 2003). In this study, the following theories of motivation and that of creativity are to be discussed; Maslow Hierarchy of Need, McClelland Theory of Achievement, Componential Theory of creativity, and Theory of personal Creativity.

2.4.1 Componential Theory of Creativity

The componential theory of creativity which was originally articulated in (1983) by Teresa Amobile as "The Componential Model of Creativity" has undergone considerable evolution since then until (2012). Amobile (2012) described the theory as the comprehensive model of social and psychological component necessary for an individual to produce creative work.

Formally, the theory is grounded in a definition of creativity as the production of ideas or outcome that is both novel and appropriate to some goal. There are four fundamental components which are regarded as necessary for any creative response. They include three within individual components that range from domain-relevant skills (expertise in the relevant domain(s)), creativity relevant process (cognitive and personality processes conducive to novel thinking) and task motivation (specifically, the intrinsic motivation to engage in activity out of interest, enjoyment or a personal sense of challenge. While the fourth component which is outside the individual domain is, the surrounding environment (that is the social environment).

According to Amobile (2012), domain-relevant skills include knowledge, expertise, technical skills, intelligence, and talent in the particular domain where the problem-solver is working – such as product design or electrical engineering. She added that, these skills comprise the raw materials upon which the individual can draw throughout the creative process – the elements that can combine to create possible responses, and the expertise against which the individual will judge the viability of response possibilities.

In Amobile's (2012) explanation, creativity-relevant processes (originally called creativity-relevant skills) include a cognitive style and personality characteristics that are conducive to independence, risk-taking, and taking new perspectives on problems, as well as a disciplined

work style and skills in generating ideas. These cognitive processes include the ability to use wide, flexible categories for synthesizing information and the ability to break out of perceptual and performance "scripts." The personality processes include self-discipline and a tolerance for ambiguity.

The third component within the individual is Task Motivation. Intrinsic task motivation is passion: the motivation to undertake a task or solve a problem because it is interesting, involving, personally challenging, or satisfying rather than undertaking it out of the extrinsic motivation arising from contracted-for rewards, surveillance, competition, evaluation, or requirements to do something in a certain way. A central tenet of the componential theory is the intrinsic motivation principle of creativity: People are most creative when they feel motivated primarily by the interest, enjoyment, satisfaction, and challenge of the work itself – and not by extrinsic motivators. Because, some researchers opined that, salient extrinsic motivators can undermine intrinsic motivation, their presence or absence in the social environment is critically important. So, too, is the presence or absence of forces that can support intrinsic motivation. As it was explained above that this theory have undergone certain modifications, one of this is on the theory's most basic tenet: that is the intrinsic motivation.

Amobile in (1993) posited that although many extrinsic motivators in the work environment do appear to undermine intrinsic motivation and creativity, some may not. If rewards or other motivators are presented in a controlling fashion, leading people to feel that they are being bribed or dictated to, the undermining effects are likely to occur. However, if rewards confirm people's competence (for example, by recognizing the value of their work), or enable them to become more deeply involved in work they are excited about (for example, by

giving them more resources to do the work effectively), intrinsic motivation and creativity might actually be enhanced. This process is termed "motivational synergy" (Amabile, 1993).

The last one component that is outside the individual is the Social Environment. The outside component is the work environment or, more generally, the social environment. This includes all of the extrinsic motivators that have been shown to undermine intrinsic motivation, as well as a number of other factors in the environment that can serve as obstacles or as stimulants to intrinsic motivation and creativity. In organizational settings like schools, a number of work environment factors can block creativity, such as norms of harshly criticizing new ideas; an emphasis on the status quo; a conservative, low-risk attitude among teachers; and placing excessive time pressure on students' exercises.

Other factors may stimulate creativity, such as a sense of positive challenge in the work; work teams that are collaborative, diversely skilled, and idea-focused; freedom in carrying out the work; supervisors who encourage the development of new ideas; teachers that support innovation through a clearly articulated creativity-encouraging vision and through appropriate recognition for creative work; mechanisms for developing new ideas; and norms of actively sharing ideas across the classroom members. Creativity requires a confluence of all components.

To this end, the componential theory of creativity is basically relevant to this study as it underlined the topic of the research. It shows that creativity and motivation are the rudiment for any effective creative ideas, thinking and achievement. According to this theory, creativity should be highest when an intrinsically motivated person with high domain expertise and high skill in creative works in an environment high support for creativity. Moreover teachers' creativity skills and motivation may serve as stimulants to students' creative potentials within the

social environment that is classroom. This approach have really took into cognizance basic issues necessary for nurturing creativity in human being as for example, environment plays significant role in both developing and stifling it.

2.4.2 Theory of personal creativity

Runco (2003) emphasized the importance of personal creativity theory. According to him, the theory focused on the creative process and mechanism that underlined creative behavior. This theory stressed the notion that creativity has to be defined in a very literal terms. The basic idea is that any thinking or problem solving which involve the construction of new meaning is creative. Although that may sound contrary to theories of creativity which emphasized originality and usefulness in production or process of creative accomplishment, but according to this theory there is no incompatibility if it is keep in mind that personal construction will likely be original and useful to the individual (Runco, 2003).

The fact is that when creativity is considered and defined only against certain social standard and creative effort must be expressed, share and socially recognized, undoubtedly this precludes much of the work of children. In his view, Runco (2003) described child's potentially creative work might very well be original and adaptive only for that individual child but unoriginal when compared with ideas or insights that other individual have had. In this perspective a child's creativity can be quiet personal.

Runco (1995) suggest that creativity requires more elaboration if it is manifest only in socially recognised performance. This important requirement should be in the domain of 'expression' and eventual 'recognition'. According to him, this would be more realistic to clearly distinguish creativity and expression from each other. He further explained that creativity can be

described interms of personal construction and the requisite cognitive process,and these process should be consided separate from expressiveness in order to maintain precision in our language usage.

The unique nature of this theory as posited by Runco (1995) is particularly important for our current purposes because it leads directly to educational implications. This is because if creativity is merely viewed and defined in terms of objective performance and actual achievement, children (that is student) have a poor chance of being identified as creatively gifted. Therefore, children's creativity is often only original in reference to personal norms and not outstanding when compared with eminent standard. This theory considered it necessary to recognize the creativity of children as such and relegate adult norms or the children's creative potentials will never be recognized.

This theory assumes that everyone has creative potential and creativity is not only characteristics of eminent geniuses nor even only of productive professionals. This idea is based on the notion that creative potential is a part of the basic human tendency to construct (personal) interpretations and assimilate information as we experience it.

Thus, everyone does that and sometimes we can use these capacities to construct original insights. These remain personal and help the individual to understand or appreciate his or her experience, or they may be shared, applied, elaborated and so on, in which case they may eventually became an objectively creative product or performance. However, in both case, the beginning is the process that children and students use and which educators can target (Runco, 2003).

To this end, this theory is relevant to this study in the sense that it gives much elaboration on mechanism of the process underlying the core feature of creative potentials of children particularly those at junior secondary school levels. Students' creative potential which is one of the variable in this present study, has to be considered and recognised based on their levels, not in comparism to normative standards, if not their ideosencretic potential capacity will go unnoticed and eventually may be lost if it is not properly nurtured.

2.4.3 Maslow Hierarchy of Needs

Maslow in (1943) as cited in Mullins (2002) and Draft (2003) discussed on the nature of individual development and motivation with the hierarchy of needs. This theory introduces that (employees) in which teachers inclusive are motivated by several needs. Human beings according to the theory have different needs that can be placed in order of importance that is, starting with the needs which are very much essential. These kinds of needs are physiological needs, safety/security needs, affiliation needs, esteem needs, and self-actualization needs.

The physiological needs include pay, food, shelter and clothing, good and comfortable work conditions etc. The security needs include the need for safety, fair treatment, protection against threats, safe job, job security etc. Affiliation needs include the needs of being loved, accepted, part of a group etc. whereas esteem needs include the need for recognition, respect, achievement, autonomy, independence etc. Finally, self-actualization needs, which are the highest in the level of Maslow's need theory, include realizing one's full potential or self-development. According to Maslow, once a need is satisfied it is no longer a need. It ceases to motivate employees' behavior and they are motivated by the need at the next level up the hierarchy. Normally, employees want to satisfy these needs, firstly those needs which are lowest in the hierarchy (physiological needs), and afterward they continue satisfying those in the high level. In fact, the primary needs which

are at lower level in the hierarchy must be satisfied before the secondary needs. For example, in the school setting, teachers are the key individuals to run the activities successfully. Therefore, their physiological needs require sufficient funds in order to be satisfied. Furthermore, safety needs has to do with the safe of jobs and job security, belongingness needs reflect the desire to participate in the work of a group they belong to it and have good rapport with them and esteem needs relate the needs for recognition and stimulated tasks. Finally, on the hierarchy, are the self-actualization needs that reflect the opportunities for training and advancement.

Basically, teachers enjoy motivation of job security which gives feeling of freedom from fear in their work place and get them entertainment of recognition for their contributions. Although the Maslow theory of needs did well in explaining the needs related to the development of human beings, however, it is worth to note that the hierarchy application may not hold true for different cultures or countries. This is due to the fact that, in some cultures social needs are more sought after than self-actualization needs. Likewise in some countries, security needs are more dominant than actualization needs. For example some teachers in Nigeria place job security needs important more than job satisfaction needs.

Motivation as one of the psychological constructs in this review and at the same time a major variable in the study, Maslow's theory is relevant as it described the individual's behavior and motivation. In a supportive environment, a teacher doing meaningful work has certain energizing beliefs or expectations about self, about his or her behavior, and perhaps about the rewards. That teacher sets a goal and takes actions that enable him/her to achieve the goals with effort and those actions bring about results that enable such teachers to earn the intrinsically or extrinsically satisfaction anticipated. For example a highly motivated teacher dedicates very well

to ensure that his students are motivated enough to excel in all their academic engagement in order give meaningful effort in the development of their country.

2.4.4 Theory of Achievement Motivation

Lussier & Achua, 2007 in Moore, Grabsch, Rotter, (2010) posited that, "Achievement Motivation Theory attempts to explain and predict behavior and performance based on a person's need for achievement, power, and affiliation". They further said that, "The Achievement Motivation Theory is also referred to as the Acquired Needs Theory or the Learned Needs Theory". Daft (2008) defined the Acquired Needs Theory as "McClelland's theory proposes that certain types of needs (achievement, affiliation, power) are acquired during an individual's lifetime".

Moore, Grabsch, and Rotter (2010) also reported that The Achievement Motivation Theory evolved from work McClelland began in the 1940s. In 1958, McClelland identified human motives related to the achievement motive, the affiliation motive, the sexual motive, and the power motive. In his later work, The Achieving Society (McClelland, 1961), however, focused his attention on only need for Achievement, the need for Affiliation, and the need for Power.

In essence, McClelland's theory postulates that people are motivated in varying degrees by their need for achievement need for Power, and need for Affiliation and that these needs are acquired, or learned, during an individual's lifetime (Daft, 2008; Lussier & Achua, 2007). In other words, most people possess and will exhibit a combination of these three needs. McClelland (1958) defined the need for Achievement as "success in competition with some standard of excellence. That is, the goal of some individual in the story is to be successful in terms of competition with some standard of excellence. The individual may fail to achieve this

goal, but the concern over competition with a standard of excellence still enables one to identify the goal sought as an achievement goal. This, then, is generic definition of an Achievement".

McClelland et al. (1958) went on to describe that competition with a standard of excellence was most notable when an individual was in direct competition with someone else but that it can also be evident in the concern for how well one individual performs a task, regardless of how someone else is doing. According to Lussier `and Achua (2007), "the need for achievement is the unconscious concern for excellence in accomplishments through individual efforts". Similarly, Daft (2008) stated the need for Achievement is "the desire to accomplish something difficult, attain a high standard of success, master complex tasks, and surpass others". Individuals who exhibit the need for Achievement seek to accomplish realistic but challenging goals.

Need for power, McClelland (1961) in Moore, Grabsch, and Rotter, (2010) described the need for Power as a "concern 'with the control of the means of influencing a person''. Individuals who exhibit the need for Power have a desire to be influential and want to make an impact. In the domain of need for affiliation, when defining the need for Affiliation, McClelland (1961) described affiliation as establishing, maintaining, or restoring a positive affective relationship with another person. This relationship is described by the word friendship (Moore, Grabsch & Rotter, 2010). Therefore, "the need for affiliation is the unconscious concern for developing, maintaining, and restoring close personal relationships" (Lussier & Achua, 2007). Daft (2008) described the need for Affiliation as "the desire to form close personal relationships, avoid conflict, and establish warm friendships". Individuals who exhibit the need for Affiliation are seeking interactions with other people.

McClelland (1953) and Atkinson (1958) in Aggrwal (2007) came to the asserted that in the individual there is the need for achievement. A person who has a high need for achievement considers problems and obstacles as challenges to be met. According to the theory, human beings differ from one another in the strength of achievement motive. It is this difference in the strength of motivation to achieve that is important in understanding the development. This theory suggests that the need for achievement develops in early childhood. Therefore, it depends upon the discipline of the home. Obviously, parents' expectation and guidance to the child develop need for high achievement in life.

To this end, the theory is quiet relevant to the present study as teachers' achievement needs is actualized when their students receive equal and appropriate consideration in the class even though such students have individual differences in terms of their behavior, cognition and thinking styles. This is done through teachers' establishment of good human relationship (affiliation) with their students and recognized their different talents in learning process. This effort has reciprocal benefit as teachers will have adequate motivation in imparting useful information to students at the same time these students will feel free in giving out important creative ideas because the class environment would happen to be conducive for them to give unconventional contributions.

2.4.5 Self Determination Theory

Self Determination Theory is presented by Deci and Ryan (2000) as cited in Ghazi and Khan (2013) in the following words. Self-determination Theory (SDT) represents a broad framework for the study of human motivation and personality. SDT articulates a meta-theory for framing motivational studies, a formal theory that defines intrinsic and varied extrinsic sources

of motivation, and a description of the respective roles of intrinsic and types of extrinsic motivation in cognitive and social development and in individual differences.

Perhaps more importantly SDT propositions also focus on how social and cultural factors facilitate or undermine people's sense of volition and initiative, in addition to their well-being and the quality of their performance. Conditions supporting the individual's experience of autonomy, competence, and relatedness are argued to foster the most volitional and high quality forms of motivation and engagement for activities, including enhanced performance, persistence, and creativity. Furthermore, SDT suggests that if any of the three basic psychological needs are not satisfied or frustrated within a social context, will fall bad affect the wellness of a person. SDT argues that for healthy development and proper functioning the satisfaction of the basic psychological needs are necessary. These basic needs are Autonomy, Competence and Relatedness. Autonomy the need to feel free of external constraints on behavior competence the need to feel capable or skilled, and relatedness the need to feel connected or involved with others

SDT compare these basic needs concepts with proper development and functioning. For wellbeing of people the satisfaction of these basic needs are very important and necessary (Deci & Ryan, 2000). According to Markland, Ryan, Tobn, and Rolnick (2005) self-determination theory has many applications in almost all fields, in which education is included.

The primary goal of the school is to motivate the students, and by proper motivating them, they are expected to show good performance. Performance here means academic performance. For example evidence proposes that teachers' support of students' basic psychological needs for autonomy, competence, and relatedness facilitates students' autonomous self-regulation for learning, educational performance, and happiness. Most of the educators initiate external controls, such as, supervision, monitoring, and evaluations along with incentives or punishment

into learning situation to make sure that learning occurs. Such external controls falls effect on teachers as well as students, both undermine, and damage their autonomy need (Ryan & Brown, 2005).

In a nutshell motivation plays an important role in the teaching and learning circumstances. Motivation of the teacher and motivation of the students both are essential. Without appropriate motivation, the process of learning becomes unclear and incomplete. For the motivation of the students, the motivation of teachers is basic (Mathews, 1988).

This theory is important to the research as it underscores freedom in the exercise of these psychological needs of individuals, because it gives the ample capacity of choice and makes those choices to be the determination of one's action. In this sense a teacher motivation enables his/ her students to adequately engage in self-initiation, self-regulation and volitional behavior which as a result, teaching and learning will became interested. This enhances level of students 'contributions especially in creative thinking and productions.

2.5 Review of Empirical Studies

This section tents to review empirical findings reported by different researchers that are relevant to the topic at hand. Therefore, the review centered mainly on highlighting on either the weak or strong relationship among the following; Teacher creativity and student' creative potentials, teacher motivation and students' creative potentials, gender and teacher creativity, gender and teacher motivation and gender difference in students creativity.

Shu'aibu, (2000) investigated the effect of teacher creative potential and its disposition on the learning of potentially creative students of all the then available public secondary schools in Kaduna State. The researcher utilized a pre-test, post-test control group design in which an attempt was made to establish the extent to which secondary schools students' performance is

depended on (1) the personality of the student and that of his teachers; (2) teachers' disposition towards the creative potentials of students; (3) teachers awareness of the creative traits; and (4) the study also tried to find out whether gender influenced creativity.

The population used was 3,177 JSS students and 718 teachers from government secondary schools. Based on the null hypothesis that there is no significant difference between convergent (non-creative) and divergent (creative) teachers in their disposition towards students who are potentially creative, the result of the findings indicated that significant differences exist between convergent and divergent teachers in their disposition towards students' creative potentials as t. value = 21.38 and t. cri. = 1.960 at $p < 0.05$. The null hypothesis was therefore rejected. Divergent teachers were found to encourage creative potentials of students more than the convergent teachers.

Asseareh et al (2013) examined the impact of teachers' creativity training on growing creativity in students and their insights on teacher training curriculum in which the hypotheses used are in line with one of my main hypotheses for the present study. This research has been carried out by semi-experimental method and it is aimed at interpretation of necessity for paying attention to training of creativity in curriculum of teachers training centers. For this purpose, two groups ($n1 = n2 = 90$) of students from first graders school in Tehran city were chosen by means of randomized cluster sampling technique in academic year 2010-11. The data were gathered by means of Form-B of Torrance Test of creative Thinking (TTCT) at two stages of pre-test and post-test in order to examine the major hypothesis of growth rate in creativity of students who were taught by teachers that well-trained in creativity skills for the improvement of creativity is higher than in children who were taught by teacher without such training, and compare effectiveness of teachers' creativity on

improvement of student' creativity. Independent variable was training creativity and the dependent variable was the resultant score from Form-B of (TTCT) figural creativity test. The result were from revision of data and or by application of covariance analysis that there is a significant difference among tested and control group (p= 0.5) as for in the major hypothesis after adjustment of post-test score (F1, 177) = 58.07; p = 0.001; n2 = 0.247. The relationship among scores of pre-test and post-test (n2 = 0.247) was at average level.

Moreover, the minor hypotheses which also made examination and comparison of effectiveness of teachers' creativity on improvement of students' creativity in which training was the independent while dependent variable included the score derived from Form-B figural test in the components of originality, fluidity, flexibility and elaboration, after the adjustment of pre-test scores indicated that there was a significant difference in post-test scores in the four above mentioned variables. With respect to the result of (F1, 177) = 56.07; p = 0.001; n2 = 0.247) the given hypothesis is confirm. Thus, the rate of improvement of children's creativity (in originality variable), who were taught by well-trained teacher was higher than students who were taught by teachers without such trainings and the relationship between pre-test and post-test scores in originality (n2 = 0.0247) was at average level.

With respect to result of (F1, 177 = 45.25; p = 0.001; n2 = 0.204), the given hypothesis was verified. Therefore, the rate of improvement in children's creativity (in flexibility variable) who taught by well-trained teachers was higher than students who were taught by teachers without such trainings and the relationship between pre-test and post-test scores in flexibility variable (n2 = 0.204) was at average level.

Giving the result of (F1, 177) =51.07; p = 0.001; n2 = 0.224) the hypothesis was also confirmed. Thus the rate of improvement in children's creativity (in fluidity variable) who were taught by well-trained teachers was higher than students who were taught by teachers without such trainings and the relationship between pre-test and post-test scores in fluidity variable (n2 = 0.224) was at average level.

With respect to result of (F1, 177) = 29.25; p = 0.001; n2 = 0.141) the above hypothesis was verified. Therefore, the rate of improvement in children's creativity (in elaboration variable) who were taught by well-trained teacher was higher than students who were taught by teachers without such trainings and the relationship between pre-test and post-test in elaboration variables (n2 = 0.141) was at average level.

Nyarko, Akenten and Abdul-Nasiru, (2013) conducted a study to find out the role of teachers in fostering creativity among basic schools in Ghana. 172 teachers, consisting of 61 females (35.5%) and 111 males (64.5%) were randomly selected from some basic education schools from Ashanti- and Grater Accra region in Ghana. The findings show that the teachers at the basic level of education promote creativity among students through motivation, divergent thinking, and the promotion of a conducive learning environment. According to the researchers, in the results of the main hypothesis of the study, it is evident that teachers differ in relation to whether creative students are intrinsically or extrinsically motivated. It shows that 96 teachers are of the view that creative children are intrinsically motivated and 76 view creative children as extrinsically motivated as (M = 63.31, SD = 6.04) and (M = 63.15, SD = 5.23) respectively, as t (170) = .191, p>0.05.

2.6 Summary

This review was done to cater for the main focus of the study. In the review, views of various psychological researchers in relation to conceptual definitions of creativity and three dimension of creative practice in the classroom were discussed. Creative individuals have many characteristics that cause them to be regarded as different within group of people especially students. Teacher with creativity may positively relate with potentially creative students as the literature reveals that creative teacher are aware of their talent and are ever ready to promote it in their students. Theories of creativity which vividly explain how it manifests in human beings were also discussed in relation to the present study. Therefore, this review is relevant to the study because ample information is provided on the research variables.

The concept of motivation and its classification using divergent view of psychologists concerning potentially creative students' performance in classroom in particular and school in general were elaborated. All human behavior is aroused in response to one of the two responsible stimulants which are internal (physiological) or external (environment). Those persons who energized by any 'drive' are expected to expand their effort in a certain direction related to the causal factors. These causal factors as the characteristic of motivation are classified in three perspectives. Firstly, is having internally aroused to reach a certain goal. Secondly, is feeling motivations as a result of pleasing or pleasant property of external stimuli. Thirdly is motivated behavior as a result of person's thought and expectations. The reports of empirical studies that are in close relation to this topic were provided.

The literature review revealed the significance of teacher motivation as fundamental in educational development particularly to the students. This is because it may positively direct students' behavior.

2.7 Uniqueness of the Study

Psychologists have done many works on creativity in its relation to many psychological constructs. For example Instructional Strategies of Intrinsic Motivation and Curiosity for developing creative thinking by (Talib, 2009), Relationship between Creativity and Intelligence by (Khaefi, 1993), The power of Creative interventions for learners by (Lucas, 2001), Creativity, autonomy and evaluation of creative work by (Greenberg, 1992) and others. Such tremendous studies though relevant to humanity, but none of them, to the best knowledge of the current researcher is done to investigate issues of teacher creativity skills and motivation in relation to students' creative potentialities. Therefore, the current study is investigated to fill in the existing gaps in this area of education.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter focuses on the description of research design, the population of the study, sample size and techniques, the instrumentation for data collection, procedures for data collection and the statistical methods of scoring and analysis.

3.1 Research Design

The researcher adopts a correlation research design. It is an approach that does not involves the manipulation of variables in the study. This was to ensure that the study devoid from manipulation of variables in concern. In this sense, a careful observation and record of information would be employed at a time the study is concluded. Marllyn and Jim described correlation studies as that which examine variables in their natural environments and do not include research-imposed treatment. They further said, correlation display the relationship among variables by such technique as cross tabulation and correlation. According to them, correlation studies are also known as ex-post facto studies.

3.2 Population of the study

The target population for this study is made up of secondary school teachers and their students in Zaria Educational Zone. The schools are:

S/N	Schools	Students		Total	Teachers
		Male	Female		
1.	GJSS Kofan Doka Zaria	1,564	905	2,469	40
2.	GGSS Dogon Bauchi (jnr)	-	1,378	1,378	33
3.	GSS Dakace Zaria	205	232	437	27
4.	Aminu GSS S/Gari Zaria	749	451	1200	23
5.	GSS Zaria Jnr	850	-	850	43
6.	GSS Magajiya Zaria junior	327	181	508	25
7.	GJSS Gyellesu	282	078	360	33
8.	GGSS Kofan Gayan	-	671	671	62
9.	GSS Kofan Kuyambana	634	296	930	44
10.	GSS Tudun Jukun	501	639	1,140	46
	Total	5,112	4,831	9943	376

Therefore, a total number of 9943 students and 368 teachers were used as the population of this study.

3.3 Sample and Sample Technique

Based on the nature of the above population, the main sampling technique employed to determine is purposive sampling technique. The sample of the study was made up of 186 students and 186 teachers of secondary schools in Zaria education Zone. This is because the number of sample to be correlated must be same from both variables of the research topics in order to make appropriate correlations.

Table 3.1 Distribution of Sample from the Population

S/N	Institution	Students' Population	Sample	Teachers' Population	Sample
1	GJSS Kofan Doka	2469	30	40	30
2	GGSS Dogon Bauchi	1378	16	33	16
3	GSS Dakace	437	13	27	13
4	Aminu GSS S/Gari	1200	11	23	11
5	GSS Zaria Jnr.	850	21	43	21
6	GSS Magajiya Jnr.	508	15	25	15
7	GJSS Gyellesu	360	16	33	15
8	GGSS Kofan Gayan	671	20	62	20
9	GSS K/ Kuyambana	671	22	44	22
10	GSS Tudun Jukun	1140	23	46	23
	Total	9943	**186**	376	**186**
	Grand Total				**373**

3.4 Instrumentation

For the purpose of this investigation, two research instruments were used to collect data. These are;

1. Creativity Assessment Scale (CAS)

2. Work Task Motivation Scale for Teachers (WTMST),

3.4.1 The Creativity Assessment Scale

The researcher employed (CAS) as used by Shu'aibu (2000). The instrument is categorized under sections A, B, and C. Section A assesses flexibility of the individuals, section B, the originality of the individuals and section C is designed to assess the individual fluency. It contained 45 items in which the first 15 measure fluency, the second 15 measure originality, and the last 15 measure fluency. The scale was selected because it has been used widely in the literature in order to assess creativity characteristics and has been shown to have strong reliability of .70 and validity for assessing creativity characteristics. Subjects will be asked to give accurate description by themselves using the scale values.

3.4.2 The Work Task Motivation Scale for Teachers (WTMST)

The researcher employed the Work Task Motivation Scale for Teachers (WTMST) that was developed by Fernet, et al, (2008). This instrument has 15 items which were designed to assess five motivational constructs toward work tasks carried out by teachers. The first 3 items measure intrinsic motivation, the second 3 items measure identified regulation/motivation, the third 3 items measure introjected regulation/motivation, the fourth one measure external regulation/ motivation, and the last 3 items were designed to measure Amotivation. This kind of

assessment of the scale may be too broad to get clear picture of motivation at work because it is determined by particular task (i.e., teaching) or even by some personality characteristics and has been shown to have strong reliability of .70 and also has validity factors reflecting five types of motivation explained above.

3.5 Validity of the instruments

For the purpose of content and face validity of the instrument lecturers in Educational Psychology and Counseling department Ahmadu Bello University Zaria were provided with the copies of the instrument. The researcher effected all the noted observations into the final draft of the instruments.

3.6 Pilot Study of the instrument

One of the best ways to identify if a research instrument is adequately designed is to pretest it (Wimmer & Dominic, 1987). This is because it will give room for checking the problems in an instrument and therefore the opportunity of editing it is given. Thus, the researcher made a pilot study particularly on WTMST, be it a foreign instrument to ensure its reliability in our context. Fifty (50) teachers of GGSS Samaru Zaria in Giwa Educational Zone were used. This is because they have similar characteristics of the research population. The data is subjected to statistical package of social science (SPSS). The split half reliability index method was chosen in order to determine the reliability of the instrument. Also Cronbach's alpha method was used in order to determine if items are internally consistent and reliable. Tukman (1979) asserted that an instrument is said to be reliable when the coefficient can be approximated to one (1), and therefore is satisfactorily adequate for used. Thus, the reliability coefficient of pilot testing result for WTMST was 0.756.

3.7 Reliability of the instruments

The Creativity Assessment Scale (CAS) has the reliability (co-efficient alpha) of 0.7 as cited in Shu'aibu (2000), and that of the Work Task Motivation Scale for Teachers (WTMST) has the reliability (co-efficient alpha) of 0.70 (Fernet, et. al, 2008

3.8 Scoring Procedure

(a) Creativity Assessment Scale.

The scale for assessing creativity for both teachers and students has forty five 45 items and is on five 5 points likert-scale. Each point in the scale is assigned a value in which 1 = very much unlike me, 2 = unlike me, 3 = not decided, 4 = like me, and 5 = very much like me. The point at the first end of scale describing the strongest affirmation has a value of five 5, while the point at the end of the scale describing the list affirmation has a value of one 1. Each question will be marked and analyzed on the basis of the number of responses for the items. A respondent can score a minimum of forty five 45 and a maximum of one hundred and eighty 225 marks. The pass mark is 75. Therefore, any of the participant who scores 75 marks and above will be considered as creative person.

(b) Work Task Motivation Scale for Teachers.

Work Task Motivation Scale for Teachers which is measuring teachers' motivation is also on five likert- scale. Therefore, any respondent can score a minimum of fifteen 15 marks and a maximum of seventy five 75 marks. Therefore, any respondent who score 40 marks and above would be considered as motivated teacher.

3.9 Procedure for Data Collection

The Zaria Educational Zone was informed about the present study. This is done through an introductory letter by Department of Educational Psychology and Counseling, Ahmadu Bello University Zaria and was asked to provide the researcher with the enrolment data for all junior secondary school zaria educational zone of 2013/14 session. Refers as appendix A is attached.

Two research assistances for each junior secondary school were used during administration of questionnaires. The researcher administered the questionnaires to the students in their various classrooms at break time. Filled questionnaires were retrieved and then participants were appreciated.

3.9.1 Procedure for Data Analysis

Data collected were subjected to statistical analysis. Descriptive statistics as well as inferential statistics were employed. Specifically, Pearson Product Moment Correlation Coefficient (r) and T-test statistical tools were used. T- test and (r) were used to find out influence of teacher creativity skill and students' creative potentialities and teacher motivation and students' creative potentialities. Therefore hypotheses 1, 2, are to be tested with (r), and T-test will be used to test hypothesis 3, 4, 5, 6, and 7. The hypotheses are to be tested at point 0.05 level of significance.

CHAPTER FOUR:

DATA ANALYSES AND DISCUSSIONS

4.1 Introduction

This chapter presents the data analysis of the study titled "Relationship between teacher creativity and teacher motivation on students' creativity among secondary schools in Zaria educational zone '. A total of 372 participants were used for this study involving 186 teachers and 186 students. The analysis is being presented in five sections in this chapter. Section one presents the bio-data variable distribution, section two presents participants responses to seven (7) research questions with items means and standard deviations. In section three, the research hypotheses were tested using Pearson Product Moment Correlation (r) and the Independent at 0.05 level of significance. Section four discussed the findings of the study and section five presents the summary of findings.

4.2 Descriptive Analysis –

Below are the distributions of the respondents by their bio data variables

Table 4.1 Distribution of Teacher and Student Respondents by creativity components of flexibility, originality and fluency

Distribution	Frequency	Percentage %
Teachers	186	50.0
Students	186	50.0
Total	372	100.0

Table 4.2 Distribution of Teacher and Studnt Respondents by motivation and creativity components of (flexibility, originality and fluency)

Distribution	Frequency	Percentage %
Teachers motivation	186	50.0
Students creativity components: (Flexibility, Originality and Fluency)	186	50.0
Total	372	100.0

The table above shows the percentage of both teachers and students where 50% who participated in responding on teacher motivation and creativity questionnaires.

4.3 Testing of Research Hypotheses

Below are the descriptive results of the research hypotheses tested.

In this part, six hypotheses were formulated to guide the study. The hypotheses were tested using parametric tests such as Pearson Product Moment Coefficient (r) for independent samples at a probability of 0.05 level of significance i.e., $P \leq 0.05$.

Hypotheses 1: This null hypothesis says that there is no significant relationship between teachers' flexibility in creativity and students' flexibility in creativity.

Table 4.3: Pearson Product Moment Correlation (r) statistics on the relationship between teachers' flexibility and students' flexibility of creativity

Variable	N	MEAN	S.D	Corr. Index r	Df	SIG (P)
Teachers Flexibility	186	63.537	8.391		370	0.000
Students Flexibility	186	60.747	8.455	0.996**.		

**. Correlation is significant at the 0.05 level (2-tailed).

An understanding of the above Pearson Product Moment Correlation statistics revealed that significant relationship exist between teachers' flexibility and students' flexibility. This is because the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of 0.996 at df of 370. This shows that the teachers creativity component level, that is flexibility component of creativity has positive flexibility relationship with students' flexibility of creativity, implying that the higher the teachers' creativity, the higher the students' creativity. Hence, the null hypothesis which states that there is no significant relationship between teachers' flexibility on students' flexibility in creativity, is hereby rejected.

Hypothesis 2: This null hypothesis states that there is no significant relationship between teacher originality in creativity and students' originality in creativity.

Table 4. 4 Pearson Product Moment Correlation (r) statistics on the relationship between teachers originality and students originality of creativity.

VARIABLES	N	MEAN	S.D	Corr. Index r	Df	SIG (P)
Teachers Originality	186	61.1183	9.82149	0.862**	370	0.000
Students' Originality	186	54.7742	9.69550			

**. Correlation is significant at the 0.05 level (2-tailed).

The analysis shown in table 4.4 revealed that significant relationship exists between teachers' originality and students' originality of creativity. This is because of the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of 0.979 at df of 370. This shows that the teachers originality of creativity component have positive relationship with students' originality of creativity, implying that the higher the teacher originality, the higher the students' originality of creativity. Hence, the null hypothesis which states that there is no significant relationship between teacher originality and students' originality in creativity is hereby rejected.

Hypothesis 3: This null hypothesis states that there is no significant relationship between teachers' Fluency in creativity and Students' Fluency in creativity

Table 4.5: Pearson Product Moment Correlation (r) statistics on the relationship between teachers' fluency and students' fluency

VARIABLES	N	MEAN	S.D	Corr. Index R	Df	SIG (P)
Teachers Fluency	186	56.5968	9.08666	0.388**	370	0.000
Students Fluency	186	170.887	24.50048			

**. Correlation is significant at the 0.05 level (2-tailed).

Results of the above statistics showed that significant relationship exists between teachers' fluency and students' fluency in creativity. Reason being that the calculated p-value of 0.000 is lower than the 0.05 level of significance at the correlation level (r) of 0.388 is at df 370, implying that this teachers' fluency of creativity significantly relate to students fluency of creativity. Therefore the null hypothesis which states that there is no significant relationship between teachers' fluency in creativity and students' fluency in creativity is rejected.

Hypotheses 4: This null hypothesis says that there is no significant relationship between teachers' motivation and students' flexibility in creativity.

Table 4.6: Pearson Product Moment Correlation (r) statistics on the relationship between teachers' motivation and students' flexibility in creativity

VARIABLES	N	MEAN	S.D	Corr. Index r	Df	SIG (P)
Teachers Motivation	186	62.2634	10.09578	0.454**	370	0.000
Students Flexibility	186	60.7473	9.69550			

**. Correlation is significant at the 0.05 level (2-tailed).

Results from table 4.6 above showed no significant relationship between the teacher motivation and the student flexibility in creativity. This is because the calculated p-value of 0.00 is lower than the 0.05 level of significance at correlation index (r) of 0.454 at df 370. This implies that teacher motivation positively relates with students' flexibility in creativity. Therefore the null hypothesis which states that there is no significant relationship between teachers' motivation and students' flexibility in creativity is rejected.

Hypotheses 5: This null hypothesis says that there is no significant relationship between teachers' motivation and students' originality in creativity.

Table 4.7: Pearson Product Moment Correlation (r) statistics on the relationship between teachers motivation and students originality in creativity

VARIABLES	N	MEAN	S.D	Corr. Index r	Df	SIG (P)
Teachers Motivation	186	62.2634	10.09578	0.900**	370	0.000
Students' Originality	186	54.7742	9.69550			

**. Correlation is significant at the 0.05 level (2-tailed).

The analysis shown in table 4.7 revealed that significant relationship exists between teachers motivation and students originality in creativity. This is because of the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of 0.900 at df of 370. This shows that the teachers motivation has positive relationship with students' originality in creativity implying that the higher the teacher motivation the higher the students' creativity in creativity. Therefore, the hypothesis which states that there is no significant relationship between teachers motivation and students originality in creativity is rejected

Hypotheses 6: This null hypothesis says that there is no significant relationship between teachers' motivation and students' fluency in creativity.

Table 4.3: Pearson Product Moment Correlation (r) statistics on the relationship between teachers' motivation and students' fluency in creativity

Variable	N	MEAN	S.D	Corr. Index r	Df	SIG (P)
Teachers Motivation	186	62.2634	10.095		370	0.000
Students Fluency	186	56.5968	8.0866	0.412**.		

**. Correlation is significant at the 0.05 level (2-tailed).

The above Pearson Product Moment Correlation statistics revealed that significant relationship exist between teachers' motivation and students' fluency in creativity. This is because the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of 0.412 at df of 370. This shows that the teacher motivation have positive relationship on students creativity in fluency, implying that the higher the teachers motivation, the higher the students fluency in creativity. Therefore, the null hypothesis which states that there is no significant relationship of teachers' motivation on students' fluency in creativity is rejected.

4.5 Summary of Major Findings

The following are the summary of the major finding derived from the statistical analysis.

1. Teacher flexibility significantly relates to students' flexibility in creativity (r=0.996, p = 0.000, df =370). Meaning that the higher the teacher flexibility the better the students in creativity flexibility.
2. Teachers originality significantly relates to students creative originality (r = 0.862, p = 0.000, df = 370). Meaning that teachers originality is relatively higher than that of the students.
3. There is significant relationship between teachers fluency and students fluency in creativity (r = 0.388, p = 0.000, df = 370) indicating that teachers fluency is relatively higher than their students' fluency.
4. There is positive relationship between teacher motivation and students' flexibility (r = 0.454, p = 0.000, df = 370). Meaning that teacher motivation has relationship with students flexibility in creativity.
5. Teacher motivation significantly relates to students' originality in creativity (r= 0.900, p = 0.000, df = 370). Meaning that teachers motivation promotes students originality in creativity.
6. Significant relationship was found between teacher motivation and students' fluency in creativity (r = 0.412, p = 0.00, df = 370). Meaning that teacher motivation relates significantly to students' flexibility in creativity.

4.6 Discussion of Findings

The aim of the present study is to investigate the relationship between teacher creativity and teacher motivation on students' creativity among secondary students in Zaria educational zone. This part therefore report the findings in relation to the hypotheses tested and some empirical studies reviewed in the literature review section. In terms of the hypotheses tested in the study, results revealed that significant relationship exists between teacher creativity components and students' creativity components (r=0.996, p = 0.000, df =370), (r=862, p = 0.000, df =370), and (r=0.388, p = 0.000, df =370) of flexibility, originality and fluency respectively. This suggests that the relationship between the teacher creativity and students' creative potentials is directly proportional i.e., when the teacher creative components are high, students' creative components will also be high. In other words, teachers' creative potentials could trigger students' creativity and vice versa. This supports the assumptions proposed by Shu'aibu (2000) saying that creativity could be fostered in the classroom whenever teachers and students respond to one another's creative needs. This finding is also in line with several empirical researches (Shu'aibu, 2000; Asseareh et al, 2013) that teacher creativity dimensions relate to students creative dimensions.

The results in the study highlight a strong connection between teacher motivation and developing students' creativity component respectively (r = 0.979, p = 0.000, df = 370) (r = 0.979, p = 0.000, df = 370) (r = 0.979, p = 0.000, df = 370) where the findings are in line with the previous studies of Nyarko, Akenten and Abdul-Nasiru (2013). The results of the study suggest that teacher motivation can make differences in students' creative development. More specifically, it revealed a strong relationship between the variables. Meaning that, teacher motivation is required for developing students' creative potentials. If teachers aim to improve the

students' creativity, one great way in achieving this is through encouraging and motivating divergence response to questions, promoting unique ideas and incorporating creative techniques and strategies into their teaching. Therefore, teachers have to be motivated to undertake research, make adequate preparation for their lessons and adopt methods that will foster creativity among learners when equipped, they will be in better position to boost their students' creativity (Caroline, 2004).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter captured the summary, conclusion and recommendations on the relationship between teacher creativity, teacher motivation and students' creativity among secondary school students in Zaria Educational Zone.

5.1 Summary

Five chapters formed the structure of this research. Chapter one presented the background and purpose of the study, the statement of problem and research questions, including six hypotheses formulated for the study, scope and limitations. In line with the research objectives, six research questions were stated as well as seven null hypotheses. The study is significant as both teachers and state ministry of education will find the outcome interesting including the students and their parents in the Zaria Educational zone and the Kaduna state as a whole. Chapter two presented the literature reviews that are related to this study under the concept of teacher creativity, teacher motivation, and student creativity. Similarly theoretical frames relating to creativity and motivation were also discussed. The chapter also reviewed previous studies related to this very study and edged with words of summary.

Chapter three presented research methodology, research design as well as instrumentation. The research population, sample size and sampling technique were presented together with validity, pilot study and the reliability of the used instruments. The procedure for data collection and analysis was also presented. Chapter four presented the data analysis including the discussion of results and a section on summary of findings was also

highlighted. Chapter five presented the summary conclusion and recommendations for the study.

5.2 Conclusion

Based on the findings of this study teacher creativity and teacher motivation have significantly related student's creativity. Thus, teachers could do well in actualizing such potentials of creativity in their students.

5.3 Recommendations

The following recommendations are offered on the basis of the findings.

1. Need to promote teacher creative flexibility so as to positively relate to students creative flexibility through which creativity developed.
2. Need to promote teacher creative originality so as to positively students' creative originality so that creativity enhanced.
3. Need to promote teacher creative fluency so as to positively relate students' creative fluency.
4. Need to effectively foster teacher motivation so as to appropriately raised student creative flexibility in creativity.
5. Need to effectively foster teacher motivation so as to appropriately raised students motivation in terms of creative originality.
6. Need to effectively foster teacher motivation so as to appropriately raised students creative fluency.

7. In general, teachers should promote self confidence in students by creating an open and active classroom environment in which such students would be allowed to express their unique opinions and also ask questions freely. To ensure this, teachers should be effectively motivated in order to discover students curious points, recognize their creatively different judgments, show deep interest, stimulate and provide them with more autonomy in order to solve any arisen problem creatively.

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Appendix A

Department of Educational Psychology &

Counseling, Ahmadu Bello University, Zaria.

25th November, 2014.

Dear Respondent,

Teachers' and Students' Questionnaires for Creativity Assessment Scale.

The questionnaire is designed to assist in the collection of data for M.Ed programme in Educational Psychology. The title of the research work is "Influence of Teacher Creativity Skills and Motivation on Students' Creative potentialities among Junior Secondary Schools in Zaria Educational Zone". The objective of the research is purely for educational purpose. You are expected to fill in the questionnaire with utmost sincerity. All information will strictly confidential.

I am most grateful for your responses,

Thanks,

Yours Faithfully,

Haruna Abubakar Muhammad

M.Ed/educ/12389/2011-2012

Appendix B

CREATIVITY ASSESSMENT SCALE FOR TEACHERS AND STUDENTS

Instruction: Below are classified characteristics that have under them statements that described behavior that you as an individual may display. You need not necessarily display all the behavior as you may be stronger in some than in others. A rating scale is provided for you to rate strongly and how often you display those behavior. Study the scale well and rate yourself by putting an 'X' in the appropriate place according to the following scale value.

KEY: SA= Strongly agree, A= Agree, D= Disagree, SD= Strongly disagree

Section A Bio Data

Name: _____

Discipline: Science ( )

Art ( )

Gender: Male ( )

Female ( )

Designation: Student ( )

Teacher ( )

Instruction: How accurate are the following descriptions of your person

ITEMS	ASSESSING FLEXIBILITY	SA	A	UD	D	SD
S/N						
1	Look for new ways of doing things					
2	Often a fault finder					
3	Not aggressive or hostile					
4	Willing to take risk					
5	Manifest odd patterns of behavior at time					
6	Do not like a constantly well-organized situation					
7	Like to propose new approaches to a problem					
8	Never bored					
9	Can perceive details					
10	Can easily adapt to a thing for their uses					
11	Can adjust quiet easily					
12	Like to make alternative observations in problem solving					
13	Sensitive to beautiful things					
14	Accept ambiguous situation					
15	If I meet a person once, I will know him when next I meet him					

ITEMS	ASSESSING ORIGINALITY	SA	A	UD	D	SD
S/N						
1	Criticize my mates					
2	Attracted to difficult jobs					
3	Not popular with people					
4	Non-conforming, even with intimate friends					
5	Seek knowledge for its make					
6	Like to disagree at times					
7	Unwilling to accept authoritarian order without overly scrutiny					
8	Can be proud and self satisfied					
9	Do not fear to make mistakes					
10	Reserved not open					
11	Do not want to be controlled by any person					
12	Do not seek recognition for contribution made					
13	Always like to do things the way I think right					
14	Innovation and introduction of the unusual makes me happy and healthy					
15	Look for new way of doing things					
ITEMS	ASSESSING FLUENCY					
S/N						
1	Have legacy-flowing ideas on certain problems that bother me					
2	Self sufficient in idea generation					
3	Can described a scene as accurate as possible with a limited given time					
4	Can give many information to explain a risen question					
5	If a diagram is incompletely, drawn, I can quickly think of many ways of improvement					
6	Have strong tendency to think so as to give many information to explain a risen question					
7	Like objective type of examination					
8	Prefer to write easy examination					
9	Hate to write poems					
10	Do not quickly see all the sides of argument because of idea shortage					
11	Find it difficult to start a discussion					
12	When a discuss is started, my ideas start flowing well					
13	At times when I am peacefully alone myriads of ideas come to me on long-standing problems					
14	Tend to describe things with few words					
15	If a painting is supplied in a sequential order, I can generate many ideas about the sequence that will follow					

Source: Items were adopted from Creativity Assessment Scale for Teachers and Students (Shu'aibu F, 2000).

Appendix C

Work Task Motivation Scale for Teachers (WTMST)

SECTION A BIODATA

Instruction: please do not write your name on this. Be kind to supply information about yourself by ticking in the column which best describe your opinion.

Sex: male ( ) Female ( )

School:----------

SECTION B ITEMS

S/N	**Items**	SA	A	UD	D	SD
1	It always pleases me to carry out my teaching task.					
2	I find teaching activity interesting to do.					
3	Remuneration is just by the way, teaching is an inherent ability I so much desire to do.					
4	It is important for me to carry out teaching task.					
5	I consider teaching important because it allows me to attain work objectives.					
6	I find my teaching important because it helps the academic success of my students.					
7	It battles me if I don't carry out my teaching task					
8	I feel guilty if I did not teach.					
9	I feel bad if I do not engage in teaching.					
10	I teach because my work demands it.					
11	It is obligation on me to teach as my school exercises adequate supervision.					
12	Teaching is my primary task because I am paid to do it.					
13	I don't know, I don't always see the relevance of carrying out teaching.					
14	I used to know why I was doing teaching task, but I don't see the reason anymore.					
15	I don't know, sometimes I don't see teaching purpose.					

Source: Items were adapted from Work Task Motivation Scale for Teachers Fernet, et al, (2008)