Sudan University of Science and Technology

College of Graduate Studies

Introducing Factors Associated with Creative Learning into English Language Classrooms for Primary School Pupils

إدخال العناصر المرتبطة بالتعليم الإبداعي للغة الإنجليزية في صفوف تلاميذ المدارس الإبتدائية

A Thesis Submitted in Fulfillment of the Requirement for Ph.D

Degree in English (Applied Linguistics)

Submitted by:

Remaz Mohammed Abbashar Ibrahim

Supervised by:

Dr. Mahmoud Ali Ahmed

September 2018

Dedication

I dedicate this work to;

The soul of my husband who passed away a year before accomplishment of this work. May Allah have mercy on him. He had accompanied me along the path of success.

My beloved brother may Allah keep him.

My parents

My sisters

My friends

Acknowledgment

First and foremost, praise to Allah who granted me the strength and ability to pursue this study. I am very grateful to my supervisor *Mahmoud Ali Ahmed* who paved the road for me and spared no effort in guiding me through this wok. Without his help this thesis would not have been possible.

I am also thankful to Sudan University of Science and Technology College of Language-English department.

My gratitude is due to all of the teachers and pupils who participate in my questionnaire and tests.

Abstract

This study was carried out to investigate an important area of teaching and learning English. It examines the present situation of teaching and learning English at primary schools, the problems that face teachers and pupils in using creative thoughts and activities during the learning process. This study adopted analytical methodology. Two instruments were used for data collection which were a questionnaire for(120) teachers and pre- and post-test for(60) pupils. Responses were analyzed using statistical package for social science (SPSS). The results of the study prove that the pupils lack the right environment for learning. Moreover the findings of the study confirm that after being motivated to a fairly advantageous environment for learning the pupils receive higher score than before. Thus motivation is a key factor in successful learning, the learning and classroom environment has an important role to play in effective learning. The study suggested some recommendations Tutors should seek to establish the concept of creativity through encouraging the processes of independent thinking and acting. Tutors should encourage their students to have their own ways of doing things in an attempt to implant the sense of creativity in young learners. Tutors and teachers should work towards designing a program with the intention of developing the skills of young people across the country, raising their aspirations and achievements, and opening up more opportunities for their futures.

المستخلص

Abstract (Arabic version)

تتقصى هذه الدراسة جانباً مهماً من جوانب تدريس وتعلم اللغة الإنجليزية. و توضح الوضع الحالي لتدريس وتعلم اللغة الإنجليزية في مرحلة الأساس، والمشاكل التي تواجه المعلمين والطلاب عند إستخدام الأفكار و النشاطات الإبداعية أثناء عملية التعلم. أجريت الدراسة على المنهج التحليلي؛ حيث إستخدمت الباحثة اداتين لجمع البيانات وهما: استبيان لعدد (120) معلماً و إختبار قبلي وبعدي ل(60) طالباً . وتم تحليل البيانات بطريقة إحصائية. أثبتت الدراسة أن الطلاب يفتقدون البيئة الدراسية الجيدة حيث أنهم أحرزوا درجات عالية بعد أن وجدوا البيئة المحفزة للتعلم. لذا فإن التحفيز هو العنصر الأساسي في عملية التعلم كما أن البيئة المدرسية والتعليمية لها دور هام في التعلم الإيجابي. إقترحت الدراسة بعض التوصيات: يجب على المعلمين تشجيع التفكير والعمل المستغل في محاولة لترسيخ مفهوم الإبداعية. كما يجب عليهم تشجيعهم للإعتماد على أنفسهم في آداء مهامهم لغرس روح الإبداع فيهم. على المعلمين والقائمين على أمر التعليم في الدولة العمل على إنشاء برنامج ينمي من مهارات الطلاب و يحثهم على التقدم ، مما يتيح لهم فرصاً أفضل في حياتهم المستقبلية.

Table of Contents

List of Tables

CHAPTER ONE

INTRODUCTION

CHAPTER ONE
INTRODUCTION

1.1 Background:

Over the past three decades, there has been a huge expansion across the world in school programs for the teaching of English to young learners. Much of this growth is due to the global forces which currently demand ever-increasing levels of communication in English across continents or just out of the motivating, viewing English as an instrument for specific purposes (e.g., international trade, tourism, advanced studies in English-speaking countries, information and technology). Since English language is considered to be a vital factor in determining success in their future career, parents want their children to be enrolled in private English schools.

In order to achieve the high purpose, many researchers have investigated in various English language fields, such as not only speaking, listening, writing, reading improvement but also in teaching and teachers' creativity and effects of teachers' creativity on EFL learners' language development and classroom management. Today most people talk about creativity in different domains and working environments. Most managers or even presidents of countries ask employees to create a novelty to improve their high goals. Obviously, category of creativity is transformed to a high and valuable purpose in educational system. Each person involved within the field of education has encountered the term creativity in many cases often integrating it with course teaching and learning and more specifically with teachers' classroom management. Thus, at the very beginning it seems essential to know what the term "creativity" means and what are its real and deep nature and impacts. Creativity has been widely defined by scholars or even usual people. Craft (2002) describes that creativity is consisting of a process of creating

something new into being. He goes on that creativity needs interest and commitment. It tries to bring to our awareness what was before hidden or ignored. It means, there are a lot of helpful points to improve which people pass unwillingly. Blunkett and Stubbs (1999) identified that: "Creativity has recently been granted official recognition as one of the overarching aims of the curriculum in English schools. The curriculum should enable pupils to think creatively and critically, to solve problems and to make a difference for the better. It should give them the opportunity to become creative, innovative, enterprising and capable of leadership to equip them for their future lives as workers and citizens" (Blunkett & Stubbs, 1999, p.11). According to Brian Birdsell's work (2013), the term creativity was defined as a strategy which conveys with it a weight that reveals stories of the birth of life, therefore everyone must apply it nowadays with caution. Michael Mumford suggested: "Over the course of the last decade, however, we seem to have reached a general agreement that creativity involves the production of novel, useful products" (Mumford, 2003, p. 110), or, in Robert Sternberg's words, the production of "something original and worthwhile".Authors have diverged dramatically in their precise definitions beyond these general commonalities: Peter Meusburger reckons that over a hundred different analyses can be found in the literature. As an illustration, one definition given by Dr. E. Paul Torrance described it as "a process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficulty; searching for solutions, making guesses, or formulating hypotheses about the deficiencies: testing and retesting these hypotheses and possibly modifying and retesting them; and finally communicating the results." Brian Birdsell believes "creativity has passed across time, transforming from divine inspiration to an 'ah - ha' moment of finding out that this paperclip on my desk could be reshaped into a business card holder" (p. 888). He continues that when one term possesses so much

meaning along with it, so much background knowledge, peppered of images, myths that for a long time researchers rather preferred not to make their hands dirty with it. Therefore, through the extraordinary creativity strategy, people are able to find out solutions for their problems. It is an ability which is appeared naturally or environmentally. Some people are born with creativity it means they possess genetic creativity. Others achieve creativity through environment such as family, friends, teachers, and even working environment. Some creative people have to be creative because of their working condition to improve quality of works' results in their specific professions.

Investigating on the identity and influence of creativity has been a concentration in almost every discipline and area in recent years' research. Creativity is discussed in everywhere todays, driven by the necessity for companies and organizations to be more competitive and by the movement towards learned-based rather than test-driven teaching in schools. Education ministers have encouraged in different parts of the world schools to concentrate more on creativity in the curriculum across all subject areas. For example a recent research in the new Economy (UK, 2008) found out that Britain's economic future and social cohesion depended on fostering a national strategy for creative and cultural education. Creative teaching is said to increase levels of motivation and self-esteem on the part of learners and to prepare them with the flexible skills they need for the future. Fostering the capacity to be creative is broadly believed to have the potential to reinforce lives and contribute to a better society.

Creativity plays a bold role in all fields especially in language teaching. Teachers must be aware of its supernatural power. They can apply in their classroom to increase their learners' improvements. English language teaching has attracted a wide attendance because it is one the most popular international language all over the world. Many researchers surveyed creativity in various language teaching

areas. Creativity has also been linked to levels of attainment in second language learning. For example, Maley's (1997) work has placed a concentration on creativity through the applying of texts drawn from a large amount of different literary and non-literary resources that can be applied to exploit creative thinking and develop the extraordinary ability to cause creative connections. A wide variety of the language tasks favored by contemporary language teaching methods are convinced to inbreed creativity in learners essentially those including learner-centered, communication-based, and open -ended factors, and therefore are ideally placed to developing creative thinking and behavior on some of learners.

Before we discuss about the characteristics, it is better to know the definition of young learners first. There are many definitions as stated by some experts. According to Violetta & Irene, the world "childhood" varies to country to country. In many parts of the word kids take on "adult" responsibilities at ages when in other countries they are still protected within their school. Therefore, the age plays important role to define the young learner starting from becoming young learner to the end phase of young learner. While Etty Maryati Hoesein stated that young learners are the students of elementary school who are at grade four up to grade six. Their ages range from ten to twelve years of age.Children are very special in which they have their own characteristics that differ them from adult. They may lack on experience, but they have great reasoning ability. Whenever they find new things, they will make a reason based on their background knowledge they have. Because they are inexperience, sometimes it will lead them on misconceptions. That is why the teacher should be aware to anticipate childrens' confusion and recognize why children have difficulties grasping new ideas.

Young children do not come to the language classroom empty-handed. They bring with them an already well-established set of instincts, skills and characteristics

which will help them to learn another language. Followings are some characteristics of young learners:

- Children acquire language best in a low-anxiety environment.
- Culture is closely related to language and is an essential component of instruction.
- Meaning can be communicated in L2 without the use of English (or L1).
- Children acquire language through a focus on meaning rather than on grammar.
- Children involve many senses in the acquisition process.
- Children are active learners and thinkers.
- Children learn effectively through scaffolding by adults.
- Meaning in L2 is established, in a school setting, through thematic, integrative approaches incorporating the content of the general curriculum.
- Meaning is established through visual cues.
- Children acquire language through extended listening experiences and negotiation of meaning.
- A relevant, meaningful context is necessary for effective language acquisition.
- The teacher can use a variety of techniques to make the language understandable to children (comprehensible input).
- Children acquire language through the tasks appropriate to their developmental level:
- More manipulation is necessary for younger students.
- Language analysis begins later (philosophic layer/late adolescence).
- Older students often demand more translations.

- The rate and the degree of L2 acquisition are affected by differing student learning styles.

1.2 Statement of the problem:

As English has become the first language of the world, most countries turned to involve it in their curriculum from the very early ages, but this rappid movement toward learning and teaching English raises several inherent issues and increase the complexity of learning and teaching task to many learners and teachers. It`s somehow create in some cases an unsuitable environment for learners.

Sudan's public school learners begin to study English from fifth class, so the research will deal with private schools where English begins from preschool. The problem we face in private school in Sudan is that there is no suitable environment for learning language and for creating a creative environment that learner can enjoy learning process. Also the absence of well trained teachers, make the learning process goes in a dull way. Also we have a social problem that most of our learners come to school with fixed concept that learning English is a difficult task, also the absence of using the language outside the class and handle it as a written language.

For all these reasons our young learners can't find their way to be creative learners.

1.3 Questions of the study:

The study attempts to answer the following questions:

1- To what extent are Sudanese young learners generally weak in English language and demotivated?

2- How far are young learners encouraged to use their creative imagination both in life and language?

3- To what extent is the learning environment suitable for young learners?

1.4 Hypotheses:

1- Most Sudanese young learners are weak in English and de-motivated.

2- Learners are not encouraged to use their creative imagination in both life and language.

3- There is no suitable and motivating environment for learners.

1.5 Objectives of the study:

This study aims to achieve the following objectives:

1- Analyze and diagnose the obstacle that face learners and teachers in creating a motivating atmosphere.

2- Give constructive feedback to teachers.

3- Help learners to use language in a large context outside the class.

4- Encourage our learners critical thinking and ideas.

5- Develop materials that can train teachers to use creativity in the class.

The study will identify the teaching and learning materials used as well as explain their impact on learning.

1.6 Significance:

Young learners are very active learners. They have intelligence and desire that make the learning process go easily and quickly, but they may get bored quickly, so that they need creative and enjoyable atmosphere.

The significance of this study is to highlight the importance of creativity in young learners classrooms, facilitate communication, help teachers to create atmosphere full of trust, self confidence and creative ideas for their learners.

Will be significance to the authorities of private school in Sudan.

1.7 Methodology of the study:

The type of method to be adopted in the present study is a analytical method.

In this research the researcher will develop two methods for collecting data and information from the respondent to testify the validity and reliability concerning the study under consideration.

The first method is the questionnaire which will be distributed to (120) English teachers from British Educational Schools. The second method is pre- and post-test for class 7 at the same school.

SPSS, will be employed to analyze the data to report findings.

1.8 Limits of the research:

This research is limited to an investigation into the use of creativity in young learners classrooms in Sudanese primary schools and describing the current state of pupils at (British Educational Schools) for the academic year 2017-2018.

1.9 Summary of chapter:

In this chapter a detailed description of the research problem and the research methodology has been provided with some focus on the objectives of the study. In the next chapter relevant literature will be reviewed.

CHAPTER TWO

LITERATURE REVIEW

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews relevant literature on the issue of creativity in classroom settings as an important aid to learning and teaching on the part of tutors. It tries to discuss how teacher at primary school classrooms can be creative enough as to facilitate the teaching and learning process. Important findings and arguments from opponents and proponents of an English-only teaching method will be discussed. The chapter is divided into two parts, the first one is on the theoretical framework, and the other is on previous studies.

Part one: Theoretical framework

Part two: Previous related works

2.1 Overview

The process of developing effective learning is compared to building a house. A house consists of individual bricks and requires solid foundations otherwise it will collapse when under strain. Learning is the same – if the foundations for learning are not in place the learner will have difficulty when coming across new and challenging learning tasks. Again, for effective work to take place it is important to plan so that the learner is ready and prepared for new and more challenging learning tasks. Yet in practice what we find is that perhaps the curriculum is planned and the teaching is usually planned and but the learning (namely, how a learner interacts with the new material) is not. In practice it is often left to chance!

Some of the things that we should bother about is the manner in which the learning task is met and presented. How the task appears to the learner can be important. Some learners can switch off within seconds of seeing a task because it looks too formidable; the sentences are too long or the vocabulary is too complex. How learners react to a task can tell us much about them, their learning styles and their

learning preferences. Independent learning is one of the most important indicators that effective learning has taken place. If learners can work independently this means that they have fully understood the task. They are able to make decisions on how to tackle new learning based on their background understanding and their capacity for independent learning. This is the beginning of creativity is to work things on one's own. The learner who repeatedly asks someone rather than tries to work through the solution themselves can in fact be: off-loading the pressure of thinking to someone else, or at least sharing it. For some learners this is important as they need to articulate the problem before they can even begin to solve it. Or perhaps they may be utilizing the skills of others because they have not acquired those skills themselves. They simply do not have the 'know how' to think through the problem and work out the steps themselves.

A question that should be asked is – does the education system promote independent creative learning? Many people are unable to work through a problem themselves. This may be due to the type of education they received because this education shaped their learning preferences and made them dependent on others. In recent years there has been a more obvious thrust towards problem-solving activities in the curriculum. This involves making decisions and thinking about and justifying decisions. This is the key to independent learning and often this is embedded in the learning ethos in a school.

The word "creative" is used frequently in schools. Practically all of us, as teachers or students, have had experiences with creative writing. Teacher stores abound with collections of creative activities or books on creative teaching of various subjects. Such sources frequently provide interesting and enjoyable classroom experiences without tackling the fundamental questions: What is creativity? Where does it originate? What experiences or circumstances allow individuals to become more creative? Although collections of activities can be useful, without

information on these more basic issues it is difficult for any teacher to make good decisions on classroom practices that might encourage or discourage creativity in students.

There has been a great deal of attention paid to different styles of learning – visual, auditory, kinesthetic and tactile – and the assumption is that each person has a preferred mode of learning. This may well be the case for some and is usually referred to as one's learning style. A useful definition of learning styles is that it is a relatively stable indicator of a person's cognitive and environmental preferences for learning. This can include the visual, auditory and kinesthetic, as well as factors such as attention and memory and environmental aspects such as time of day, light, background noise and classroom seating arrangements.

It is important however to ensure that one does not view learning style as an inflexible and fixed way of processing information. It is not a blood group! Yet for many, knowledge of their learning style can help significantly in learning and particularly in tackling tasks that can be demanding.

University libraries contain theoretical texts and research studies that address basic questions about creativity, but the authors of these books seldom extend their investigations to explore implications of research and theory for daily classroom life. Few theorists examine what their theories mean for the language arts curriculum or consider how the research on motivation and creativity might affect methods of grading, evaluation, or reward. Even more rarely are such implications explored with school-age students.

Developing creativity in young people is a good idea. Teachers might wonder about taking time away from the curriculum or the role of creativity when addressing state standards (both of which I'll discuss later in the chapter), but rarely did they ask whether or not creativity itself had value. Today, I occasionally meet teachers who do. They wonder why they should do anything they aren't

"accountable" for. If it isn't going to count, what's the point? This seems a bit like a captive rowing in the belly of a ship, concerned only about the number of strokes the overseer is counting and not really thinking about where the ship is headed.

Teachers are responsible to create places in which students learn to think, and places in which thinking can be joyful. Few critics would argue that schools should teach students to think critically and understand deeply. There is abundant evidence to suggest that the strategies that support creativity—solving problems, exploring multiple options, and learning inquiry—also support depth of understanding. We will explore those ideas later in the chapter. But in addition, joy matters. I don't believe that any good teacher can limit his or her responsibility to the transmission of content. We want our students to have zest for life and hope in their capacity—and we want them to have those things in school. It is no coincidence that in an article titled, "Joy in School" Steven Wolk (2008) cited "Let students create things" and "Take time to tinker" among the key elements of a joyful school life. In schools, we aren't punching out widgets; we are nurturing young people. In my view, an essential part of preparing students for life is helping them see that life is interesting and filled with the potential for joy. One way we do that is to help them experience creativity.

2.2 Creativity a global concept

As we all know across the globe countries face economic, political and human challenges at daunting scales. The world is changing at breakneck speed. Howard Gardner, well known for his theory of multiple intelligences, has written a book called *Five Minds for the Future* (2007), outlining five types of thinking, or "minds," that will be necessary if humankind is to survive and thrive in our changing world. Not surprisingly, one of those is the "creating mind." Sir Ken Robinson (2001, 2005), senior advisor to the Getty Foundation, talks about two great crises in our climate. The first crisis is global warming, threatening our

environmental resources. The second he describes as a cultural crisis that impacts our human resources, the climate of fear and risk aversion in our educational system spurred by overemphasis on single standardized measures. He says: "The educational reforms really needed now are actually being held back by the attitudes to education that many policymakers learned when they went to school—20, 30, or 40 years ago.

Many seem to believe the way to the future is simply to do better what we did in the past.

The truth is we need to do something completely different for today's students" (2005, p. 2). Robinson believes that only with experiences in creativity will our students be able to prepare for the shape-shifting world they must embrace. It is interesting to note that in Robinson's home country of Great Britain, the government, with his assistance, has established Creative Partnerships, "the Government's flagship creative learning programme, designed to develop the skills of young people across England, raising their aspirations and achievements, and opening up more opportunities for their futures" (Creative Partnerships, 2008). On the other side of the world, the Taiwanese Ministry of Education aims to make Taiwan a "Republic of Creativity" in which creativity is "indispensable to everyone's life" (Niu, 2006, p. 381). It would seem if we want our young people to be successful in the world they will inhabit, they will need more than the knowledge we can measure on traditional tests. They will need the skills, attitudes, and habits required for solving problems unimaginable today. They will need to see varied viewpoints and understand people across the globe. They will need to think flexibly and with imagination. They will need to be creative.

2.3 Defining Creativity

There are many definitions of creativity (e.g., Kaufman & Sternberg, 2006; Runco, 2007; Sternberg, 1999). Some definitions focus on characteristics of individuals

whose work is determined to be creative (What is a creative person like?), whereas others consider the work itself (What makes this creative?). In either case, most definitions have two major criteria for judging creativity: novelty and appropriateness. For example, Perkins (1988a) defined creativity as follows: "(a) a creative result is a result both original and appropriate. (b) A creative person—a person with creativity—is a person who fairly routinely produces creative results" (p. 311). Although Perkins' propositions are broad, they tie together the concepts of creative people and creative activities in a neat practical package. Even so, each aspect of this simple definition poses questions.

Novelty and originality may be the characteristics most immediately associated with creativity. Works of literature that imitate those before them or scientific discoveries that are merely a rehash of earlier work are seldom considered creative. To be creative, an idea or product must be new.

The key dilemma is, new to whom? If a researcher at the University of Michigan works for years to engineer a gene transfer to cure a particular disease only to discover that a researcher at Stanford published the same techniques only 2 weeks before is the Michigan researcher's work no longer creative? Must elementary school children devise ideas that are unique in the world before their efforts can be considered creative? Either of these questions becomes, in the end, a semantic or a value issue. Some researchers—including some of the most active today—are focused on high-level creativity, creativity that changes some aspect of our world in dramatic ways. For them, only ideas new to a particular discipline or culture are designated creative. Therefore, the following definition seems most reasonable for our purposes: To be considered creative, a product or idea must be original or novel to the individual creator. By this standard, Michelle's peanut butter and jellyfish sandwich can be considered original, as can the unhappy researcher's discoveries, because both efforts were new to their creators, if not to the world. But

although we can select this standard as reasonable for educational practice, it is important to recognize that the issues regarding novelty are not ultimately resolved.

The second aspect of creativity is appropriateness. If I am asked the time and I reply, "The cow jumped over the computer yesterday," my response would certainly be novel—but would it be considered creative or simply inappropriate? Again, the definition can be fuzzy. Was Juan's late-night entrance to the school appropriate? Because van Gogh's works were not accepted by the public of his time, were they inappropriate? If they had never been accepted, would they have been creative?

One important factor in determining appropriateness is the cultural context in which the creativity is based. Just as intelligence is viewed differently in various cultures (Sternberg, 2000b, 2004), so the vehicles and focus of creativity vary from culture to culture and across time. Works by van Gogh or Manet that 19th-century audiences rejected are considered masterpieces today. The expressive individualism of some African American young men can take the form of creative stances, walks, and gestures that can go unnoticed or misunderstood by those outside their culture. Contemporary artists see beauty and power in graffiti that escape much of the general public.

Cultures in fact, differ in their conceptions of the nature of creativity itself (Kaufman & Sternberg, 2006; Liep, 2001; Lubart, 1999; Weiner, 2000). The product-oriented, originality-based phenomenon emphasized in this book is a Western orientation, whereas some Eastern or traditional cultures conceptualize creativity as a process of individual growth, spiritual journey, or evolution (rather than revolution) in shared community culture.

It is interesting to think about which areas in our culture are most tied to our cultural values and how that may affect our openness to creativity. It seems likely

that the types of problems and modes of expression will vary in any multicultural society such as the United States. Certainly, the dulcimer music of Appalachia differs from New Orleans jazz. In a similar fashion, the styles of art and language as well as the modes and themes of expression show great diversity. In facilitating creativity in schools, it is important for the teacher to consider the cultural contexts of students' lives. It is necessary to provide multiple vehicles or strategies to appeal not just to students' varied abilities or learning styles, but also to their diverse social and cultural values. This varied sense of appropriateness perhaps makes defining creativity more complicated, but it also allows richness and diversity in the types of creative efforts that are attempted and appreciated.

In much adult creativity, criteria are set by the culture and the discipline. Most paintings, for example, must have some balance and composition. The question becomes much trickier as the norms change in a discipline. Although styles of painting vary and evolve, works of art are seldom considered creative unless they are eventually appreciated by some audience. Van Gogh was originally considered dysfunctional. Our revised standards consider him creative.

Each culture and discipline sets standards for creative activities. In many Western cultures a story has a beginning, middle, and end, as well as an identifiable conflict and climax. In other cultures with elaborate oral traditions, the shape of a story may be very different, embracing multiple side roads and circles. Criteria for judging African ceremonial masks are very different from those for evaluating Italian *commedia dell'arte* masks. Nonetheless, the creative efforts in each case are eventually considered to meet some standard and be accepted by some audience.

Adult standards of appropriateness, however, are generally not suitable for children. Few expect elementary school students' paintings or stories to match those of Cassatt or Fitzgerald. We can consider children's efforts appropriate if they are meaningful, purposeful, or communicative in some way. If students

successfully communicate an idea or endeavor to solve a problem, their efforts can be considered appropriate. If they do so in a way that is original, at least to them, we can consider the efforts creative.

2.4 Levels of Creativity

It is important to acknowledge that the term "creativity" can be used to describe acts at several different levels. The everyday creativity described in above is certainly different in scope, if not necessarily in process, from the world-changing efforts of DaVinci or Einstein. Writers sometimes distinguish between "Creativity, with a big C" that changes disciplines and "creativity with a little c," the more commonplace innovations of everyday life. Necka distinguishes among fluid, crystallized, mature, and eminent creativity (Necka, Grohman, & Slabosz, 2006). Fluid creativity is typical of every human being and characterizes such basic acts as composing original sentences. It lasts only a few moments. In this model, crystallized creativity is synonymous with problem solving. It can vary a great deal depending on the complexity of the problem to be solved. Mature creativity addresses complex problems with originality, usually requiring a depth of expertise in the problem area. Eminent creativity differs from mature creativity in that it addresses problems substantial enough to cause a shift in the discipline being addressed. It also requires acceptance and recognition within a field. Sternberg (2003) proposed eight types of creative contributions, varied by their impact on a discipline. These ranged from replication to the integration of two formerly diverse ways of viewing a phenomenon. In this text we will include in our discussions all types of creativity, from the everyday to the once-a-generation varieties. It will become clear that some theorists deal primarily with one, some primarily with the other. Certainly the kind of creativity we hope to enhance in our students is likely to be, at least for the moment, of the "little c" variety, but we hope that

understanding the bigger picture and wider goals can make us better stewards of the talents in our midst.

2.5 Theories of creativity

Speaking from a historical perspective, both Plato and Aristotle described the creative process, but in very different ways. In *The Ion*, Plato writes about Socrates' responses to questions concerning the creative process in poetry. He describes the poet as under the influence of a divine madness that carries him out of his senses.

> "The lyric poets are not in their senses when they make these lovely lyric poems. No, when once they launch into harmony and rhythm, they are seized with the Bacchic transport, and are possessed.… A poet is a light and winged thing, and holy and never able to compose until he has become inspired and is beside himself, and reason is no longer in him.… It is not they who utter these precious revelations while their mind is not within them, but … it is god himself who speaks, and through them becomes articulate to us. (Rothenberg & Hausman, 1976, p. 32) "

Plato's emphasis on a mystic and external source of inspiration might ring true for Mozart. Both men saw the inspiration for creative activities as coming from outside, beyond the control of the creative individual, perhaps in the same way that Morrisseau (1997) saw his ideas as originating in the House of Invention. Creativity was considered unexplainable and outside normal human abilities. In fact, many of us listening to the music of Mozart may find it easier to attribute such beauty to divine intervention than to the powers of a fallible, vain, and possibly crass human being.

In contrast, Aristotle argued that creative processes must obey understandable natural laws.

> "All makings proceed either from art or from a faculty or from thought. Some of them happen also spontaneously or by luck just as natural products sometimes do…. Anything which is produced is produced by something … and from something … The artist makes, or the father begets, a "such" out of a "this"; and when it has been begotten, it is "this such." (Rothenberg & Hausman, 1976, pp. 35–36)"

Aristotle did not believe that creative products came through mystical intervention or unique creative processes. He believed that just as plants and animals produced young in a rational, predictable fashion, so art, ideas, and other human products derived from logical steps of natural law. His approach may have appealed to Tchaikovsky, for whom much of the creative process was the result of "cool headwork and technical knowledge" (Vernon, 1975, p. 58).

Although their arguments are complex, the basic contrast between Plato's and Aristotle's positions continues into modern psychology. Some theorists emphasize inspiration, insight, or other processes unique to creativity that may occur in ways not discernible to the conscious mind. Others emphasize the similarities between creativity and other cognitive processes and postulate, as did Aristotle, that there is nothing unique in the creative process. From that perspective, with enough understanding, we should be able to dissect creativity and understand how it works.

Beginning in the 19th century, psychologists have presented a variety of theories to explain creativity. Each author brings to the task a specific theoretical perspective, the lens through which he or she views a range of human behaviors. A theorist who

believes human behavior is largely the result of subconscious forces will view creativity differently from one who believes behavior can better be explained by conscious learning through experience. For the clusters of theorists presented in this chapter, think about how each theory of creativity fits into a broader perspective of thinking about human thought and behavior.

2.5. a Psychoanalytic Theories

Psychoanalytic theories explain human behavior, development, and personality traits as shaped by powerful unconscious processes. Such theories attempt to uncover the unseen needs that motivate individuals' actions, often looking to childhood events to comprehend adult behavior.

2.5 b. Freud's Approach

Sigmund Freud believed that human behavior could be explained by examining conflicts between unconscious desires and acceptable outward behavior. He postulated three aspects of human personality: the ego (logical conscious mind), the id (primitive unconscious drives), and the superego (a conscience-like force that acts as mediator between the other two). Freud tied creativity and much other behavior to the sublimation of drives deriving from the id. If an individual cannot freely express his or her desires, those desires must find release in other ways or be sublimated. Freud believed that beginning in childhood, a person must repress his or her sexual desires in order to fit into conventional society.

Thus he saw these sexual urges as particularly powerful forces that must be countered by psychic defenses. Many of the defense mechanisms, he postulated, resulted in unhealthy behaviors and various neuroses. Creativity, on the other hand, represented a healthy form of sublimation, using unfulfilled unconscious drives for productive purposes. In discussing creative writers, he stated:

> "We may lay it down that a happy person never phantasies, only an unsatisfied one. The motive forces of phantasies are

> unsatisfied wishes, and every single phantasy is the fulfillment of a wish, a correction of unsatisfying reality. These motivating wishes vary according to the sex, character and circumstances of the person who is having the phantasy; but they fall naturally into two main groups. They are either ambitious wishes, which serve to elevate the subject's personality, or they are erotic ones. In young women the erotic wishes predominate almost exclusively, for their ambition is as a rule absorbed by erotic trends. In young men egoistic and ambitious wishes come to the fore clearly enough alongside of erotic ones. (Rothenberg & Hausman, 1976, p. 50)

Although we may speculate about the effects of Victorian society on Freud's assessment of the differing genders' needs, it is clear that he viewed fantasy and creative writing as the results of unfulfilled wishes, a continuation of childhood play. Heroic characters may express the need for conquest, and romantic heroines may express the need for love in a representation of the writers' daydreams. Personal desires for sex or power are cloaked in story, allowing writer and reader to experience pleasure without unacceptable guilt.

2.5.c Kris *and* Kubie

Later psychoanalysts developed variations on Freud's theories. Kris (1952/1976) asserted that the basic process of creativity is regression, that creative individuals are able to recreate a childlike state of mind in which unconscious ideas are more accessible to the conscious mind. Kris believed that freely wandering fantasy may serve the id in relieving unconscious desires, but unlike Freud, he emphasized regression in service of the ego. That is, he believed that the childlike state involved in reflective thinking, the problem solving, and creativity may be undertaken purposefully, under the control of the creator. He postulated two phases

of the creative process: an inspirational phase deriving from uncontrolled unconscious processes and an elaborational phase directed by the conscious ego.

Kubie (1958) extended psychoanalytic theory in two major breaks with Freud. First, Kubie postulated that creativity has its roots, not in the unconscious, but in the preconscious system fl owing between the conscious and unconscious. In his view, both the conscious and unconscious are rigid functions distorting or disrupting creativity. The symbolic processes in the conscious mind are limited to the recall of past experiences shaped by our use of language. Without the limitations of language, he postulated, our memories could be richer in sensory and emotional data. The processes of the unconscious are seen as similarly rigid, frozen by unconscious needs and desires. The painter who paints the same picture over and over again was seen as expressing an unconscious need, but as unable to find the flexibility necessary for true creativity. This flexibility, according to Kubie, is found in the preconscious state on the fringe of consciousness. This is the state we experience between sleep and wakefulness or during daydreams. He believed that to encourage creativity, we must strengthen preconscious processes.

> The goal is to free preconscious processes from the distortions and obstructions interposed by unconscious processes and from the pedestrian limitation of conscious processes. The unconscious can spur it on. The conscious can criticize and evaluate. But creativity is a product of preconscious activity. This is the challenge which confronts the education of the future. (Kubie, as cited in Rothenberg & Hausman, 1976, p. 148)

2.5. d Jung's Theories

Carl Jung (1972), an associate of Freud, also believed in the importance of personal experiences and the unconscious mind in framing creative production. However, he believed that important creative ideas come from influences greater

than those in the mind of a single individual. Jung examined the patterns in human behavior, story, and myth that transcend time or culture. He believed that such patterns can be explained by postulating a human collective unconscious, "a sphere of unconscious mythology … [that is] the common heritage of humankind" (p. 80). The collective unconscious was seen as a series of inherited patterns that evolved through human history, predisposing individuals to think in particular forms.

> "There are no inborn ideas, but there are inborn possibilities of ideas that set bounds to even the boldest fantasy and keep our fantasy activity within certain categories: a priori ideas, as it were, the existence of which cannot be ascertained except from their effects. They appear only in the shaped material of art as the regulative principles that shape it; that is to say, only by inferences drawn from the finished work can we reconstruct the age-old original or the primordial image. (Jung, 1972, p. 81)"

The images, figures, and characters of the collective unconscious are seen to be remnants of the experiences of our ancestors. According to Jung, they explain the similarities of earth-mother figures, creation myths, and resurrection and flood stories found in widely separated cultures. Jung believed that the greatest creativity taps these archetypal images, or images that provide the foundation for beliefs across cultures.

2.6 Contemporary Psychoanalysts

Similar to Kubie, Rothenberg (1990) and Miller (1990) were particularly interested in the relationships among trauma, neuroses, and creativity. Miller studied the childhood of creative individuals and sought information on repressed childhood traumas that might give clues to their creative development. For example, in Picasso's painting Guernica, she identified images she believed are linked to an

earthquake in Malaga during which Picasso, a terrified 3-year-old boy, escaped with his family through the crumbling city. She believed that the roots of comedian Buster Keaton's creativity were his efforts to escape childhood abuse, and that much creativity is the result of individual efforts to deal with unconscious childhood pain. Although Miller's writings called for an end to child abuse, it is not clear whether the elimination of early trauma and abuse would eliminate or merely change the focus of creative efforts.

Rothenberg (1990) examined the creative process through extensive psychiatric interviews and experiments with artists and scientists, including Nobel and Pulitzer Prize winners, poets laureate of the United States, and recipients of numerous other honors. He emphasized that, unlike the subjects of many other psychoanalytic researchers, his subjects were not patients in therapy, but willing participants in a research effort.

Rothenberg (1990) identified specific thought processes that he believed are used by creative people across disciplines. These processes, he said, "distinguish creative people from the rest of us" (p. 11). The first of these he called the janusian process (after Janus, the Roman god of doorways and beginnings, whose two faces look in opposite directions). Contrary to much psychoanalytic thought, he viewed the janusian process as a conscious, rational procedure. In the janusian process, opposites are conceived simultaneously, a leap that transcends ordinary logic. Although not necessarily represented in the finished product, the idea of opposites being equally true represents an important stage in the creative process. For example, playwright Arthur Miller described coming up with the idea for his play *Incident at Vichy* while traveling in Germany. As he was driving on the Autobahn, he was struck with how beautiful Germany had become and the contrast between that beauty and Hitler's destruction. Rothenberg believed that Miller's ability to conceptualize the beauty and the horror simultaneously was central to his writing.

Nobel laureate Edwin McMillan was able to conceive of accelerating particles having simultaneously too much and too little energy, which led to the idea of phase stability and the development of the synchrotron, a high-energy particle accelerator. In each case, opposites provided the key to innovation.

The second of Rothenberg's creative processes is the homospatial process, conceiving of two or more entities occupying the same space at the same time. This, he believed, is the process leading to the development of metaphors. A poet interested in the similar sound of the words "handle" and "branch" was able to bring these ideas together in a mental image leading to the phrase "the branches were handles of stars."

In an interesting series of experiments, Rothenberg created a set of slides in which subjects could be presented with images either side by side or superimposed (the superimposed pictures representing the homospatial process). Some writers and artists were shown a picture of soldiers next to a picture of a bed. Others were shown the two pictures superimposed, as if in a double exposed photograph. A third group saw the photos with one on top, blocking part of the other. He found that in all three groups, significantly more creative products came from the subjects who had been the superimposed photographs, suggesting that the homospatial process may, in part at least, be learned.

2.7 Behaviorist or Associationist Theories

Psychoanalytic theorists consider human behavior to be determined primarily through the interaction of conscious and unconscious drives. Associationist psychologists, on the other hand, view human activities as resulting from a series of stimuli and responses. The most famous advocate of this position was B. F. Skinner. The "Father of Behaviorism," Skinner believed that individuals' actions were determined solely by their history of reinforcement. If actions were followed by pleasant consequences, they were likely to be repeated. If the consequences

were unpleasant, it was less likely the individual would try a similar action again. Theorists from this perspective focus on observable behaviors rather than internal drives or desires.

2.7.a Skinner and the Chickens

In a famous paper entitled "A Lecture on 'Having' a Poem," Skinner (1972) stated that a poet is no more responsible for the content or structure of a poem than a chicken is responsible for laying an egg. Each action is seen as a result of the creator's history, the stimuli and responses each one has experienced. In this view there can be no truly original behavior or ideas, except as they are an inevitable product of a unique individual's experiences. Presumably, another person who experienced every aspect of Shakespeare's life would have had no choice but to write the same plays. According to this theory, those who would influence creativity can do so through reinforcement. The more creativity or activities approaching creativity are reinforced, the more they should occur.

2.7.b Mednick's Associative Theory

Another associationist theorist, Mednick (1962), also viewed the production of ideas as the result of stimuli and responses, but he theorized that creative ideas result from a particular type of response, the bringing together of remote, unrelated ideas. Individuals who frequently bring remote ideas together should be more likely than others to produce creative ideas. This process may be influenced by several factors. First, individuals must have the needed elements in their repertoires. The person who invented the beanbag chair must have had some experience with beanbags or similar objects.

Second, individuals must have a complex network of associations with the stimulus. Those who are able to make multiple associations with a given idea are more likely to make unusual associations than those who give only a few

stereotyped responses. This hypothesis was supported in Mednick's research using word-association tests with creative and less-creative research scientists.

Others investigating from a behaviorist or associationist perspective examined the effects of reward on novel behavior. Glover and Gary (1976) manipulated the reinforcement, practice, and instructions given to fourth- and fifth-grade students, listing all the possible uses for an object. Specific types of creative thinking (fluency, flexibility, originality, and elaboration) increased when they were rewarded. Holman, Goerz, and Baer (1977) found that the diversity of children's paintings or block structures could be increased through reward. From this perspective, a teacher who wants students to generate more elaborate or original ideas should reward students for that behavior. Eisenberger and Cameron (1996) and Eisenberger, Armeli, and Pretz, (1998) used a behaviorist perspective to argue for the positive influence of reward on creativity, at least in divergent-thinking tasks.

2.8 Humanist Theories

Humanist theorists do not emphasize either neuroses or reinforcement as predominant forces in human psychology. Instead, they focus on normal growth and the development of mental health. Humanist theorists view creativity as the culmination of well-adjusted mental development.

2.8. a Maslow's Theories

Maslow (1954), founder of the humanist psychology movement, postulated a hierarchy of human needs that can be met in a generally ascending order, beginning with physical needs and progressing to needs for safety and security, love and belonging, self-esteem, and self-fulfillment. At the top of the hierarchy, one has the opportunity for self-actualization as a fully functioning human being. In examining the relationship between this development and creativity, Maslow found he had to reexamine his hypothesis that mental health, talent, and creative

productivity went hand in hand. He could not match his ideas about creativity and healthy mental development with the apparently unhealthy behaviors of such great creators as Wagner or van Gogh.

To deal with this conflict, Maslow (1968) postulated two types of creativity. The first, *special talent creativity* is "independent of goodness or health of character" (p. 35) and functions in creative geniuses. He concluded that we know very little about this type of ability except that we sometimes can recognize it when we see it. As described in chapter 1, this is Creativity with a "big C."

The second type of creativity, *self-actualizing creativity*, is the basis for most of Maslow's writings on this topic. He believed that creativity of this type is a manifestation of mental health and movement toward self-actualization. It may be applied not just to the traditional creative arts, but to any aspect of human behavior. Perhaps his most famous statement on the topic concerned a subject from whom he learned that "a first-rate soup is more creative than a second-rate painting … cooking or parenthood or making a home could be creative while poetry need not be; it could be uncreative" (Maslow, 1968, p. 136). A first-rate soup would be the product of creativity with a "Little c."

According to Maslow, people with a high level of self-actualizing creativity tend to do everything creatively. They are characterized as more spontaneous and expressive than average, more natural, and less controlled or inhibited. He believed that the ability to express ideas freely without self-criticism is essential to this type of creativity, and that this ability paralleled the innocent, happy creativity of secure children. Creativity was described as "a fundamental characteristic, inherent in human nature, a potentiality given to all or most human beings at birth, which most oft en is lost or buried or inhibited as the person gets acculturated" (Maslow, 1968, p. 143).

Maslow described the personality characteristics of subjects he identified as displaying self-actualized creativity. He considered them to be relatively unfrightened of the unknown, more self-accepting, and less concerned with others' opinions. These personality characteristics provide the essence of self-actualizing (SA) creativity.

> "SA creativeness stresses first the personality rather than its achievement, considering these achievements to be epiphenomena emitted by the personality and therefore secondary to it. It stresses characterological qualities like boldness, courage, freedom, spontaneity, perspicuity, integration, self-acceptance, all of which make possible the kind of generalized SA creativeness, which expresses itself in the creative life, or the creative attitude, or the creative person. (Maslow, 1968, p. 145)

2.8.b Rogers' Approach

Rogers (1961), another humanistic psychologist, who also viewed creativity as the product of healthy human growth. He identified specific factors that allow or enhance creativity: "The mainspring of creativity appears to be the same tendency which we discover so deeply as the curative force in psychotherapy—man's tendency to actualize himself, to become his potentialities" (Rothenberg & Hausman, 1976, p. 298). Rogers viewed creativity as the emergence of novel products through the interaction of an individual and the environment. The characteristics associated with creativity allow this interaction to take place.

The first characteristic identified by Rogers is openness to experience. He believed that creative individuals are free of psychological defenses that would keep them from experiencing their environment. (Notice how this contrasts with Freud's idea that creativity is a psychological defense.) Openness to experience implies that an

individual is willing to view experiences outside traditional categories, to consider new ideas, and to tolerate ambiguity if ambiguity exists.

The second characteristic is an internal locus of evaluation—that is, reliance on one's own judgment, particularly in gauging creative products.

Rogers's third characteristic is the ability to toy with elements and concepts. He believed creative individuals must be able to play with ideas, to imagine impossible combinations, and to generate wild hypotheses. This characteristic is associated with the same type of openness and lack of rigidity found in the first characteristic, and appears to be fundamental to problem-finding. When these three characteristics are present, according to Rogers, the natural human trait of creativity can develop.

2.9 Development of Creativity and Social Interactions

Surprisingly little research and theory has examined the longitudinal development of creativity across time. One of the most interesting writers in this area was Lev Vygotsky. For years Vygotsky's work was unavailable to Western readers. In 1992, Smolucha reconstructed Vygotsky's theory of creativity from three translated papers. Originally written in the 1930s, the papers are part of Vygotsky's sociocultural analysis of human thought, emphasizing the social and cultural interactions that underlie human thought and understanding. As such, they foreshadow the complex interactions among individuals and society that characterize the systems theories of creativity. However, Vygotsky also characterized creative thought and activity in three major stages, so I consider his work first as a development approach.

Vygotsky believed that creative imagination originates in child's play. In particular, he saw the use of objects in symbolic play as key to the development of imagination. An oft en-cited example is a child using a stick as a play horse. The child at play is able to imagine a horse, creating an animal where none exists.

Vygotsky distinguished between *reproductive imagination*, in which the individual imagines things from memory, and *combinatory imagination*, in which he or she combines elements of previous experience into new situations or behavior that characterizes creativity. The little child on the stick horse reproduces much of the experience from his or her prior understanding of horses, but the child may use and combine parts of this in new ways. Symbolic play experiences are influenced (and perhaps directed) by social interactions, such as an adult's suggesting that the stick might be a horse.

2.10 Creative People

Words such as "artist," "inventor," and "musician" bring to mind images that often are larger than life. We may picture a starving painter shivering in rags in a windy garret, a wild-eyed Dr. Jekyll amid bubbling beakers, a rock star surrounded by screaming fans, or a violinist playing for coins on a street corner. It is difficult to tell which of these images are grounded in reality, which are products of Hollywood, and which may be helpful in identifying and nurturing students' creative potential. Are all highly creative people alike? Certainly creative individuals like Elijah McCoy, Angélica Vasquez, and Stephen Schwartz led vastly different lives. Students as diverse as Steven Spielberg, Sarah, and José can lead us to question what a creative student really looks like. The characteristics of a creative student will be examined here as associated with highly creative persons, imagine how they might be manifested in children, and discuss how they might be supported in classrooms.

Many kinds of personal characteristics may be important in the development of creative potential. These can be divided into three general categories: cognitive characteristics, personality traits, and biographical events. Creative individuals may be distinguished by the ways they think; by their values, temperament, and motivation; and by the things that happen during their lives. It is important to note

that these patterns and the relationships among them are enormously complex. Just as there is no single theory of creativity, there is no generic creative person. The characteristics of creative individuals vary among people and among disciplines. A creative composer has strengths, needs, and values different from those of a creative physicist, and no two creative physicists are exactly alike. Despite these variations, there are enough patterns to suggest some commonalities worth exploring. In examining these commonalities, one more caveat is in order. Identifying traits in highly creative adults does not guarantee that similar traits are present in creative children or children who may grow into creative adults. At the end of the chapter, I look at some research on young people who have been identified as creative and show how it dovetails with research on creative adults. It does present some promising beginnings. We must, however, admit that our knowledge of creativity as manifested in children is limited. Having done so, we use the research available as well as we can. Because we lack definitive answers, our most practical course of action is to consider identifying and supporting positive characteristics associated with creativity wherever we find them. Identifying them is our goal for this chapter.

2.11 Creativity and Intelligence

The most accurate description of the relationship between creativity and intelligence was designated "it depends." If, like Guilford (1986), you define creativity as part of intelligence, the relationship is quite simple: Creativity is intelligence, or at least part of it. Most theorists, however, distinguish between the two, even if they do so somewhat muddily. In most cases, those who hypothesize that creativity is the product of the same basic cognitive processes as other thoughts recognize that the production of novel, appropriate ideas is distinct from the production of accurate, analytical but unoriginal ideas. Yet experience and common sense seem to indicate a relationship between the two. We probably

would be surprised to see an outstanding creative contribution coming from a person of severely limited intelligence. Notwithstanding the extraordinary accomplishments of some individuals with savant syndrome, the vast majority of inventions, scientific breakthroughs, great works of literature, and artistic innovations appear to be made by intelligent people. How intelligence facilitates creativity is the subject of debate and ongoing study.

In the 1950s, MacKinnon (1978) identified a minimal relationship between creativity and intelligence in creative architects, writers, and scientists. He found a low, positive relationship between intelligence and creativity in mathematicians. These findings do not mean that the architects and writers were not intelligent, but that the most intelligent subjects were not necessarily the most creative. It was difficult or impossible to predict creativity on the basis of their IQ scores.

Barron (1969) examined the relationship between creativity and intelligence in a variety of disciplines. He identified a moderate relationship over the total range of scores, but for an IQ higher than 120 the relationship was small. He, among others, postulated a *threshold effect*, a minimum IQ necessary for major creative contributions. Beyond that level (perhaps IQ 120), other factors may be more important than intelligence in predicting creativity. If, as seems likely, the majority of MacKinnon's architects had IQs at or above the threshold level, little relationship would be expected.

Roe (1952) studied creative scientists with similar results. She found that although the IQs of creative scientists were generally high and the patterns of intelligence (verbal, quantitative, and so on) varied by field of science, the relationship between creativity and intelligence in her subjects was not strong. She postulated that a minimum level of intelligence was necessary for a person to make inventive or elaborative contributions in science, but above that level, other factors came into play.

The idea of a threshold relationship between creativity and intelligence probably is still the most widely accepted theory today. Sternberg and O'Hara (1999) listed three findings regarding conventional conceptions of intelligence as measured by IQ and creativity: (a) creative people tend to show above-average IQ; (b) when the IQ is above 120, IQ does not seem to matter as much to creativity as it does when IQ is lower than 120; and (c) the correlation of creativity to IQ is variable, ranging from weak to moderate. This is determined, at least in part, by the measures chosen. Therefore, more than 40 years later, the threshold effect still has support. Yet the variety of theories makes it clear that many other personality, cognitive, and environmental variables also affect an individual's ability to be creative in a particular discipline. These variables are examined later in this chapter.

2.12 Creativity and Classroom Setting

Teachers always hope to help students increase their creativity. So they need to determine which aspects of creativity can be influenced and what our role is in that process. Its clear, there are diverse points of view as to the origin of creativity, how it is exhibited, and what types of activities might encourage it. Our role as teachers will vary depending on the theories and models of creativity we follow. If, as did Plato, we believe that creativity stems from the intervention of the muses, there is not much we can do (unless we can determine what attracts the muses!).

2.13. Motivation to Learning

Motivation is a key factor in successful learning and this part will focus on strategies to develop motivation. Ideally motivation should be intrinsic – that is, a learner is self-motivating. To achieve this however a learner needs to have a desired goal and some determination to succeed. Children who experience barriers to learning, such as those with dyspraxia and dyslexia, can find motivation challenging as repeated failure will result in serious de-motivation, this state is often referred to as 'learned helplessness'. It is crucial that a learner does not reach

this state and for that reason early success is important when tackling new tasks. It is also important that both the extrinsic (rewards) and the intrinsic (self-motivation) are taken into account in the planning of learning.

An educator remembers his experience in a conference on motivation. He starts saying several years ago he spoke at a conference with an intriguing title – Motivating to Learn, Learning to Motivate (RTLB Conference, Dunedin, New Zealand, 2003). The conference organizers really ought to have been congratulated for that title – they got it right. These two phrases, *Motivating to Learn* and *Learning to Motivate*, are crucial for effective learning. A car will not run without fuel, children will not learn without motivation – the 'fuel' of learning. At the same time not all children are intuitively and intrinsically motivated to learn. Some children need to be motivated and a teacher has to develop the means and methods to enable and facilitate this motivation.

2.13.a Motivation by task

For many, the sight or indeed the thought of certain types of tasks can be sufficient to demotivate them. There is therefore an onus on teachers to develop achievable tasks. This in turn can be the first major barrier that has to be overcome in order to maintain motivation. Some learners, if they have experienced repeated failure, will become totally de-motivated and will not want to engage in learning new material in any way at all. It is important that children can experience success before they become de-motivated. It is for that reason that great care must be taken when developing tasks to ensure that these are motivating and importantly that a learner believes a task is achievable. It is necessary that a task is broken down into small steps and that every step represents an achievable and rewarding outcome for a learner.

2.13.b Motivation by reward

Although rewards are useful they should be seen as a short-term strategy – a step towards self-motivation. Rewards are normally only successful in the short term and can help children who need a boost, particularly if they are finding a task challenging. Rewards must be also be achievable and learners must value rewards. Ideally, it is best if any reward is negotiated with a learner.

2.13.c Social motivation – the influence of peer groups

The part on learning styles will show how some learners prefer to learn on their own whilst others need social interaction. Social interaction can be beneficial as it can help develop important social skills, such as turn taking and sharing and listening to other people's opinions. The process of helping and working with others can in itself be motivating. Group dynamics can be positive or negative and it is important to ensure that the composition of a group is beneficial to all. A constructive and positive group working harmoniously can be a significant motivator. A motivated group will be able to pull the resources of all the members of the group together and this can be a strong motivating force.

2.13.d Motivation by feedback

Every learner needs feedback to ensure he/she is on the correct path, but feedback is often used as a means of grading or correcting. Using feedback in this way teachers run the risk of de-motivating the learners. It is important that feedback is seen as different from correcting work. Feedback should be continuous and formative and should not necessarily come at the end of a task. Moreover, feedback should be positive or framed in a positive manner.

2.13.e Motivation by achievement

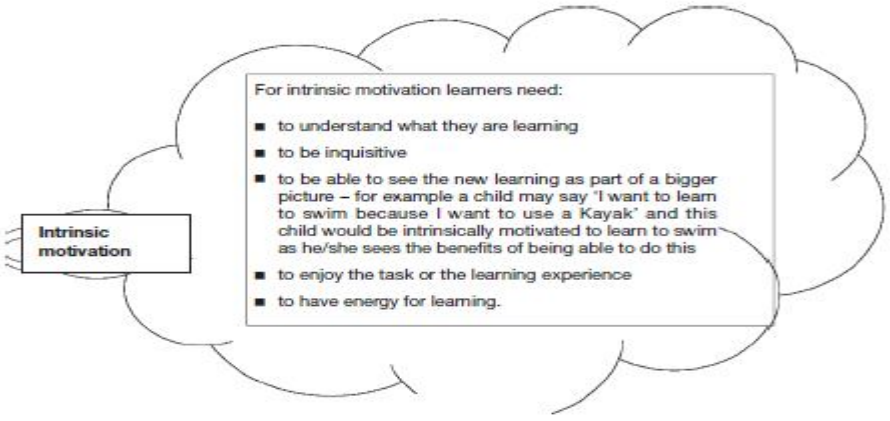
It can be quite illuminating talking to a group of high achievers. Some very successful learners are not aware of their own success. They may measure or perceive success in a different way to others. A student who is accustomed to

obtaining straight ‘A’s may feel a failure if she/he obtains a ‘B’ – yet this can be a highly commendable grade. The ‘must be best’ syndrome is quite widespread in today’s competitive society and although this has some positive elements it can be seen as a very risky strategy and one that can place enormous pressure on the learner.

The key point here is what do we mean by achievement? Achievement is not necessarily reaching the goal set by the teacher. Achievement depends on the learner and their readiness for the task. If a person does not achieve then the task will need to be revised until they can achieve it!

2.14 Moving to intrinsic motivation

Intrinsic means within and intrinsic motivation is the desire to embark on a task stemming from within the individual. Learning will be more effective if children are intrinsically motivated and this will also facilitate independence in learning.



2.14. a The motivating environment

The environment has the potential to have a considerable impact on learning, but environmental preferences are very individual and depend a great deal on an individual’s learning style. Whilst it is important to help an individual find the best learning environment for him/her, it is unrealistic to be able to accommodate every

environmental preference in a classroom. However some effort can be made to ensure that the classroom environment caters for a range of preferences.

As indicated earlier in this chapter motivation is a whole-school responsibility – and that particularly includes the school management. It is important that motivation is embedded within a school's ethos. Often a school's motto can have a deep and motivating message.

2.14.b Encourage Diversity in Learning Style

Children's learning patterns are often the result of how they were taught and the learning environment and ethos of schools. For some children this is perfectly satisfactory as their styles and preferences match those of their schools.

For others however this may not be the case. For that reason it is important to encourage diversity in children's learning preferences. This can be done by offering them choice and giving them the opportunity to utilize their own learning style in the classroom. Some mediating factors that can influence the use of learning styles are culture, school climate, teacher and parent expectations, teaching style and classroom norms and practices. It is therefore important to reflect on the above and ensure that flexibility is used to encourage diversity.

2.14.c Encourage creativity

It is interesting to reflect on the fact that many creative people can only take control of their own learning after they leave education. Many fail at school, or certainly do not shine. This is because the examination system often does not encourage creativity. There are certainly signs that progress is being made in this area but often the pace of learning, to ensure that all examinable areas of the curriculum are covered, is fast. This means that there is little scope for digressing and indeed for encouraging creativity. For many learners creativity is the principal motivating factor. For example the young, rising pop singer who is directed by a record company to record covers by other artists all the time may soon tire of this

and become de-motivated. Artists in particular need to be encouraged to use their creativity and this can in fact apply to all learners. Many when asked if they are creative would quickly reply 'no' because they have not had the opportunity to be creative.

2.14. d Ensure success with small achievable steps

Success is an essential factor for motivation and for successful learning. It is a teacher's responsibility to ensure that a learner meets with success. If success is not evident then a task has to be further differentiated. Most learners take to learning new information in steps, although holistic learners do need to have an overview of the whole area first. The key point is to ensure that each of the steps is achievable and to ascertain that knowledge of a child's learning style and previous knowledge is available.

2.14.e Provide feedback to students about their own personal progress

Progress is personal – progress for one may not be progress for someone else. It is important that the criteria for progress are not generalized but instead should be individualized. Once it has been decided what exactly constitutes progress for an individual this should be discussed and negotiated with them. Then personal goals can be established and progress more easily identified.

2.14.f Learners need to believe in their own abilities

Self-belief is crucial if one is to accomplish any degree of success and motivation, yet often the education system is geared to select and to grade. These factors can totally wipe out any element of self-belief, so it is important to recognize and acknowledge any achievements – no matter how small they may seem to others. These can be huge for the individual learner. Even those who seem to have achieved a great deal of success – in the classroom or on the playing field – still need and rely on positive feedback to ensure that they can believe in their own abilities. It is often those who seem to have achieved a great deal who have a

surprisingly low level of self-belief. This can be because they are not receiving the positive feedback they actually need. The common perception might be that these children do not need it because they know they are successful. The key point here is not to take this for granted and assume that some successful learners do not need positive and continuous feedback and encouragement in order for them to develop and maintain self-belief.

2.14.g Ensure a task is age and interest related

It is too easy, particularly with learners who have reading difficulties, to provide them with a text that may be at their reading level but not at their interest level. Obtaining age-appropriate materials for learners with reading difficulties is essential in order to develop motivation. Many publishers now provide reading materials that are high on interest but have a lower level of vocabulary (Reid 2007).

2.14.h Use observation to begin with to get to know the learning and environmental preferences of the children in your class

Before developing materials for a class it is important that some knowledge of the individuals within the class is acquired. One of the most effective ways of doing this is through informal observation. The headings below can be used to acquire information on each child. For each of the headings you are asking how the learner deals with each category. For example how does he/she organize information? In what type of learning situations do they attend best? How do they interact with others in the class – is it a positive interaction? What types of factors motivate them to learn? The headings below can be used flexibly to obtain any type of information that can be useful.

i) Organization

ii) Attention

iii) Sequencing

iv) Interaction

v) Self-concept

vi) Learning preferences

vii) Motivation/Initiative

viii) Independent learning.

2.15 Key Points to Remember

- Motivation is a key factor in successful learning.

- Great care must be taken when developing tasks to ensure that they are motivating and importantly that a learner believes a task is achievable.

- A constructive and positive group working harmoniously can be a significant motivator.

- Feedback should be continuous and formative.

- Intrinsic motivation is important in order to promote independence in learning.

- The term 'the motivated school' indicates that motivation is a whole-school experience and the school climate and school ethos are important considerations.

- The nature of the learning experience should be acknowledged and used to promote motivation and independence in learning.

- It is important to acknowledge learning style and learning diversity as these can promote motivation.

- Self-assessment and self-monitoring should be developed as far as possible.

- It is important to encourage student responsibility when engaged in a task. This can give students a sense of ownership over the task and this in itself is a great motivator.

2.16 Factors Associated with Learning Styles

The factors that can be associated with learning styles include:

- **Modality preference:** this refers to the preference for visual, auditory, tactile or

- **Kinesthetic learning**. Most learners will use all these modalities when tackling a task, but often learners can have a clear preference for one or two of these modalities.
- **Personality type:** some learners need to engage emotionally with the task. Some need to be quite adventurous when engaging in learning and may attempt tasks that can be quite challenging whilst others might be more cautious and reflective.
- **Social factors:** some learners need to work collaboratively with others. For some this social aspect is very important whilst others may need to tackle a task on their own.

Learning styles and learning preferences need to embrace cognitive, social and personality factors. It can be misleading to view learning styles from a purely cognitive perspective. Although learning style does embrace how people think and process information, it is more than that. Learning itself is influenced by other factors such as the environment and social groupings and the personality of the learner. For example, some learners need to have a quiet environment whilst others need to have visual and auditory distractions.

2.16 a Managing learning styles in the classroom

Managing learning styles in a classroom context can present a considerable challenge to teachers. One should not underestimate the difficulty in preparing teaching and learning materials that can meet the needs of the wide range of learning styles found in a classroom group. This diversity of learning styles can be met through differentiation and advance planning but these need careful consideration which should be built into lesson and curriculum plans as well as being part of the preparation of teaching resources.

The following sequence and tasks may be helpful:

- Identify the learner's individual learning styles and learning preferences. .

- Identify curriculum objectives.
- Identify the series of tasks to meet these objectives.
- Identify what measures will be used to indicate whether these objectives have been met.
- Plan how the content can be differentiated to meet the different learning styles.
- Identify resources that will be necessary to support the range of styles.
- Identify and plan the classroom environment that can incorporate the range of styles.
- Show how learners will be able to use their experiences to develop control over the learning processes through self-direction and self-assessment.

2.17 The learning environment

The learning and classroom environment has an important role to play in effective learning, so what are the key components of the learning environment? These are all the factors that influence the learning experience. This can differ in different cultures and in different classrooms. The important aspect is that as many of the environmental factors as possible should be considered.

i). The classroom – lighting

Lighting in the classroom is important as there is now considerable evidence that learners can be sensitive to different ranges and types of lighting. There is a general agreement that fluorescent lighting is not the most effective for the majority of learners. It is a good idea therefore to ensure that there are small table lamps in the classroom in quiet corners.

ii) Windows

Natural lighting is the best for most children but at the same time too much can be distracting and ideally there should be a combination between natural and artificial

light. For some detailed tasks and for some learners, particularly those with attention difficulties, too much natural light can be distracting.

iii) Color

Color can have a profound effect on learners and can influence not only the learning experience but also people's moods and attitudes. The general view is that pastel colors are soothing and calming. Bold colors like bright red can be dramatic and depending on the learners and the task bold as well as tranquil colors can be used.

iv) Wall displays

Wall displays can be very powerful and great effort should be taken to ensure they convey the right messages to children, staff and visitors. Displays can be informative and they can convey a powerful message.

Wall displays can provide a message to the school and to visitors

Classroom walls can also be a teaching aid as the picture above shows. This is fun and a good activity for kinesthetic and tactile learners.

The classroom environment has a key role to play in facilitating effective learning. It is important to acknowledge all aspects of the environment and to attempt to provide a range of environmental choices in relation to lighting, noise and seating arrangements. Although it is appreciated that often space is limited in a classroom, it is important nevertheless to be aware of how the environment can impact on

learners. It is also important to convey this to the learner so that at least he/she may be able to use this self-knowledge to create their optimum learning environment.

New learning experiences need to be carefully introduced to learners and knowledge of learning styles can inform this process. When new learning is being introduced it is best to introduce it using the learner's strengths – once the key ideas have been grasped then other means can be employed. This is particularly relevant if the new learning is challenging.

2.18 Given's five learning systems

Barbara Given (2002) has developed a comprehensive approach to learning styles by incorporating five learning systems. These are:

- Emotional
- Social
- Cognitive
- Physical
- Reflective

Learning systems according to Given are guided by hereditary factors but the environment determines people's responses to different learning situations. Key therefore is the interplay between an individual's learning system and a learner's environmental influences. The educational implications of Given's learning systems are shown below:

(i) Emotional – self-direction

Self-direction is an important factor in effective learning. The learner has to be sure of him/herself and have the confidence to take risks in learning. This is what one is hoping to achieve with all learners but some may never reach this level – yet can still be effective learners using other means of learning, for example from following instructions or working with others.

(ii) **Social – self-assurance**

In most cases learning takes place with others. This does not have to be so but often collaboration with others can enhance the result of the learning experience. To work constructively with others however requires a degree of confidence and self-assurance. It is important to help a learner develop this. Whilst some will feel comfortable working with others and will be able to do this instinctively, others may not. It is important to be aware of this and learners who do not have this self-assurance will need some support in this area.

(iii) Cognitive – self-regulation

Self-regulation refers to control over learning which is one of the most successful factors for effective learning. Control involves

a) *pacing learning* that is the speed at which one works particularly in meeting time deadlines.

b) *understanding of the task* often learners can embark on tasks without having a clear understanding of what has to be done, namely what the task is actually requiring the learner to do.

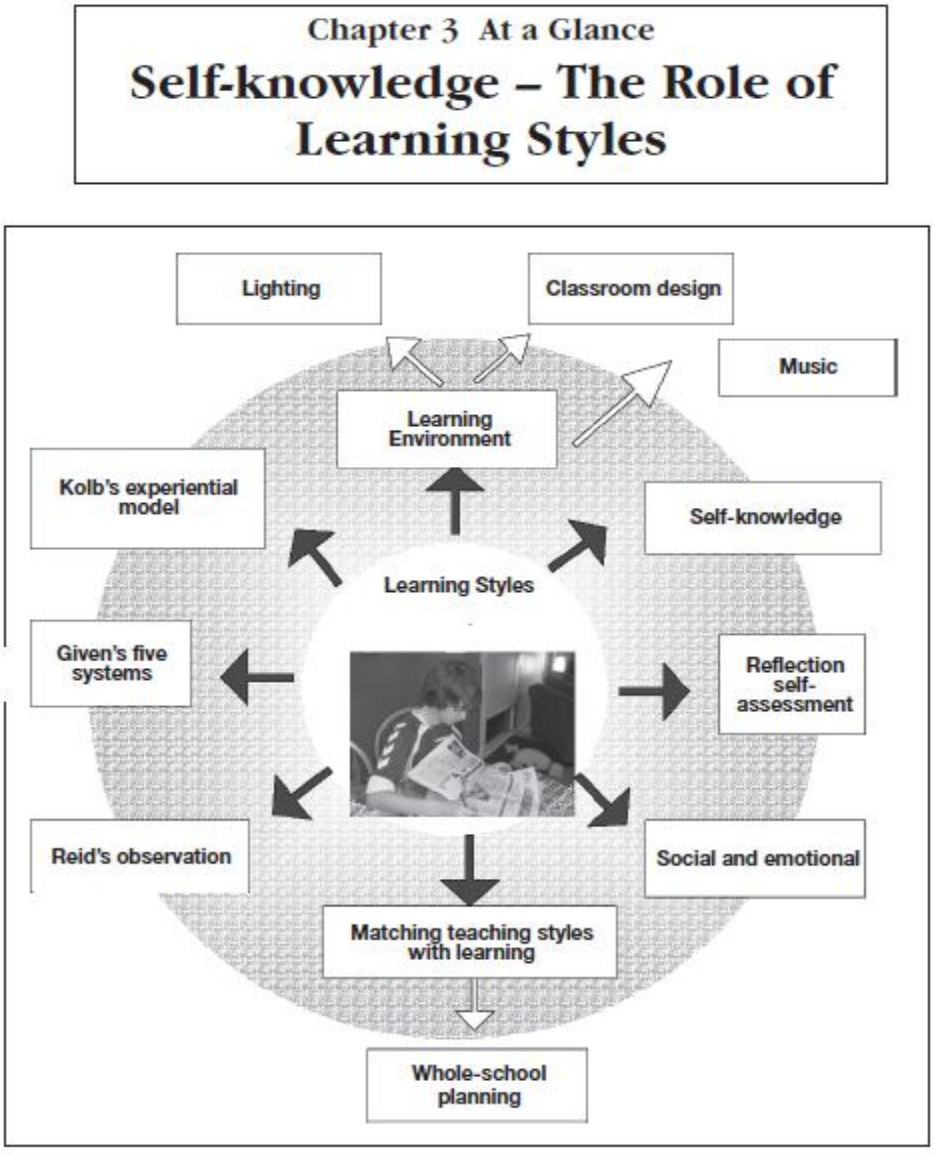
c) *having a clear plan* control over learning involves being able to plan and sequence the steps needed to complete the task.

d) *accessing resources* part of having control over learning is being able to know the most appropriate kind of resources and support to access.

(iv) Key Points to Remember

- Learning preferences may be a more useful term to use than learning styles and both need to embrace environmental and social factors as well as cognitive (processing) factors.
- Use a student's learning preferences to introduce new learning.
- View learning as a process not as a product. This has implications for curriculum development.

- Using a learning styles approach can assist students to develop self-awareness and a deeper understanding of the learning process.



2.19 Learning Environment to Enhance Creativity

This part of the chapter is to provide suggestions for maximizing the learning environment to enhance creative learning. These factors include:

- the classroom design and layout
- environmental preferences of learners

- and *20 key factors* for consideration when planning a learning environment.

2.19.a Classroom design

The classroom design and layout should try to accommodate for the diversity of students. The learning styles of students need to be considered – such as the effect of color, sound, music and space. A good starting point is to perform a learning styles audit of the class to work out the range of preferences. From that it is possible to find the type of layout that might be suited to the majority of children in the class.

2.19.b Creative *Learning environments*

Some learning environments may be more suited to left hemisphere learners while others may be more suitable for right hemisphere learners. Left hemisphere learners generally prefer a quiet, formal and predictable environment, whilst right hemisphere learners prefer a more random, informal and usually visually and auditory stimulating environment.

2.20 Environmental preferences

Environmental preferences can be considered following discussion with a learner or through observation of them in different settings. It is useful to develop a framework for this (shown below). The idea behind this is that it is flexible and can be developed in relation to what you need to know in order to build a learning styles profile.

(i) Organization

This should focus on how the learner organizes him/herself in terms of their cognitive organization, as well as the materials they need to use. Cognitive organization refers to the following: *Input* How information is initially processed and remembered in the short-term memory. *Cognition* How the information is understood, organized and retained for future use. *Output* How the information is presented by the learner to show the degree of mastery.

In each of these cognitive stages the learner is required to organize the information he/she is processing. Some learners find this quite demanding and observing them as they go through these processes can provide insights into their learning preferences. This can in turn have implications for the learning environment.

(ii)**Attention**

It is important to assess the types of tasks that can promote, or indeed distract a learner. This can be seen by noting the environment and the type of tasks that can maintain and extend a learner's attention. It is also quite important to recognize when a learner's attention wavers and to note the tasks he/she is undertaking at that time.

(iii) **Sequencing**

In addition it is useful to note how a learner sequences information. This can give an indication in relation to their learning style and how the task should be presented for them. For example, does this learner prefer information in neat columns or in number form or do they prefer to learn in a more random manner?

(iv) Interaction

A great deal of information can be gleaned from the type of interaction that learners engage in and some environments can be more conducive to interaction than others. For example, if a learner's style is one that relies on interaction then the environment must be conducive to this and should permit a degree of freedom to allow such interaction.

(v) Self-concept

The outcome of any learning activity can be determined to a great extent by the level of a learner's self-concept. Great effort needs to be made to ensure that a learner feels comfortable in an environment as otherwise it may affect his/herself concept.

(vi) Learning preferences

It is important to profile students' learning preferences. When this is done it is also essential to consider the impact of the learning environment on individual learners. It is usually necessary to discuss this with a student in order to determine the most appropriate environment for his/her learning style.

(vii) **Motivation/initiative**

The nature and degree of motivation shown by the learning are important in determining the learning outcome. It should be noted whether this motivation stems from a learner's own initiative or whether they need to be prompted. This can have implications for the actual learning program and the type of rewards whether intrinsic or extrinsic.

(viii) **Independent learning**

Ideally this is what all learners should be striving for. Some can achieve this quite readily whilst others need a significant amount of support and structure to attain this. It is important to determine this so that a structure can be developed if necessary. It is also necessary to consider how such structures can be gradually removed, as it can be quite difficult to determine the balance between structuring support and removing that support.

So, it is important to ensure that the learning environment is flexible so that it can accommodate the range of learning preferences within a class. There should be a sense of ownership within a class and it is vital that children see the classroom environment as their own and that they have some control over how it is organized. This applies to all aspects of the environment such as wall displays and the layout of desks and chairs, as well as the degree of movement and the availability of music to listen to whilst working.

2.21 Memory: Recognize, Revise, Review, Recall and React

This part will provide strategies for developing skills in memory for creative learning. The key to an effective memory is not necessarily gathering a host of strategies – an effective memory depends a great deal on organization. It is important that learners develop effective organizational strategies to ensure that when they are learning new information it will be understood and retained. To a great extent memory strategies are usually a focus for children further up the school and at college.

Much of the strategies in this chapter can be applicable to these groups. At the same time it is important to focus on memory strategies for younger children too and some of the strategies in this chapter can be contextualized for younger children.

The development of effective memory skills has implications for how children take notes and how key points are identified, as well as planning learning and reflection. This chapter will therefore provide:

- a framework for organization to enhance memory skills
- a discussion of different methods of note taking
- insights into reflection and self-correction
- a top ten of memory tips.

1.12.a Setting Goals

It is important that realistic goals are set for learners. It is also important that learners are involved in the development of these goals. Quite often a teacher may have to realign expectations because learners are not ready to meet the expectations and goals set by the teacher.

(i) *Prioritize*

Everyone, including children, has always too many things to do. We are surrounded by choice and decisions every day. It is necessary therefore to

prioritize, but for some people that can be difficult and it is necessary to gain practice in doing this. When a student has a list of things to achieve it can be difficult for him /her to decide what to do first and what is less important. This can apply to daily tasks as well as to specific areas of study (such as writing an essay). It is important that children are presented with dilemmas that require decisions to be made and can practice prioritizing the different tasks to be carried out. This can be done on a daily task or weekly task basis.

(ii) ***Planning and prioritizing***

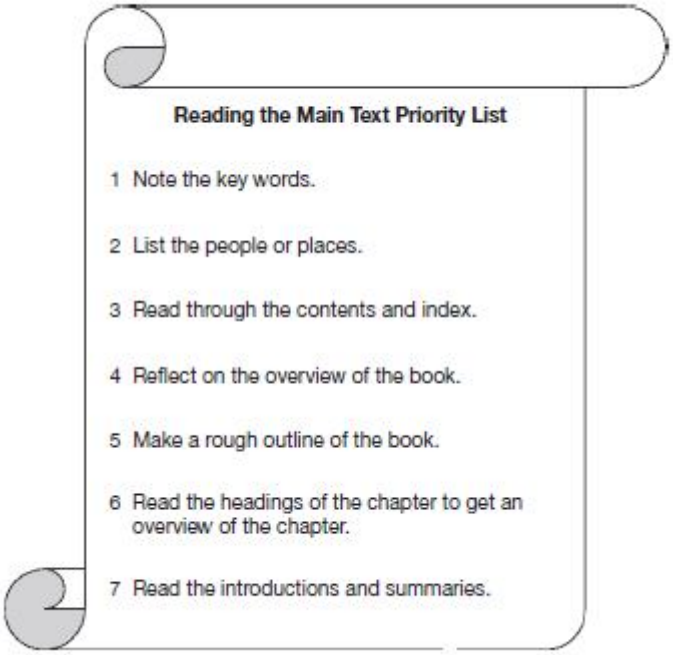
One of the benefits of prioritizing when undertaking a task is that it can help with both sequencing and also planning for the various activities that must be carried out. The example below provides guidance on this when preparing to write an essay, by reading through the main text. The idea is that by tackling one aspect at a time you unburden the load on the memory and this can make the task less arduous.

(iii) Postpone

Do not be afraid to postpone things that you feel should be done. This is part of the art of prioritizing. If postponing something you should give it a rough timescale – for example, 'next week' or 'after I tackle this …' but it is important to note this so you can remind yourself it still has to be done.

(iv) Action

Goals can only be achieved if they are acted upon. It is important therefore that the goals that you set are achievable and that they can be carried out. It is action not planning that achieves goals, but therefore a realistic and achievable plan must be set.



(v) Monitor

This is significant as monitoring can reassure you that you are on track and can also serve as an aid to memory. It can be helpful when making out a planning sheet to have a column to monitor progress, for example:

(vi) Praise

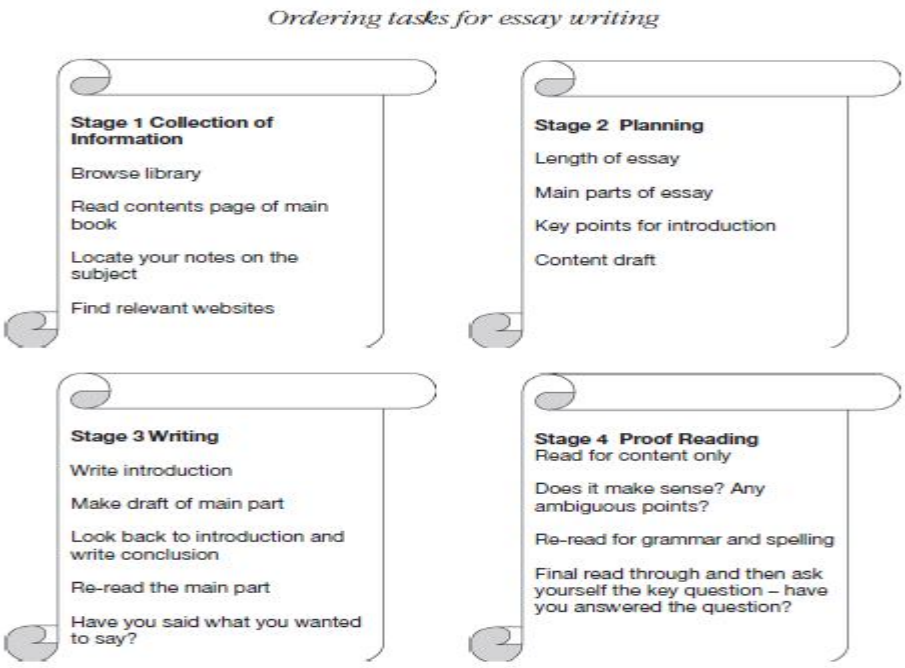
One of the most important factors in prioritizing is motivation as this can help with achievement which in turn can help to ease the burden on memory as it means there are fewer things to remember to carry out. Two of the key factors are motivation are feedback and praise. It is worthwhile to build feedback into every learning experience and this should highlight the positive. Suggestions for progress should be framed in a constructive way which can be done by first stating what a student has achieved and then going on to discuss how this can be improved. This should be done in the form of a suggestion.

(vii) Select

This involves self-questioning to ascertain those areas that are important in a task or a piece of new learning. This involves focusing on only the necessary information.

(viii) Order

This is an important factor in memory work – some people can remember information better if it is sequenced for them. This can be done in history, through the use of a time line that can sequence events, and also when studying a novel. Many children need this type of structure and it is a good way of chunking events together. For example, a task to practice this could be to chunk all the events that have happened in the first chapter of a book (or in the reign of a monarch in history) and to make a list of these.



A key point to remember is that Understanding is the key to the efficient use of memory. Understanding comes before retention but will make retention easier, particularly over the long term.

2.22 Tasks and Expectations for Creative learning

Learners need to be optimistic – that is the source of motivation and eventual success. At the same time they need to be realistic and set themselves tasks and goals that can be realized. This is an important factor for motivation and effective learning. The actual task that is set and the expectations of how that task can be achieved are crucial for motivation.

This part will therefore provide:

Strategies and suggestions on aspects relating to task development and presentation a discussion of factors relating to learner expectations such as attitude, self-fulfillment, setting realistic goals and assessing success. It is important to discuss goals and expectations with learners. This is crucial as a learner's perception of a task needs to be the same as their teacher's. Learners may see a task as very demanding even though it is well within their abilities. It is important to discuss a task with a learner and as a result the time frame or aspects of the task may need to be re-framed. It is also important to get to know learners. If we reuse the same question on different worksheets, learners' understanding of that same question can be quite different, and for some it could present another challenge from the one that the teacher envisaged. It is worthwhile therefore to engage in pre-task discussion with learners to ensure that both they and the teacher have a common understanding of the task in hand.

2.22.a Task development

A successful learning outcome starts with the task – and not the learner. It is the task that can determine the outcome. Some of the key factors relating to the development and presentations of tasks are discussed below.

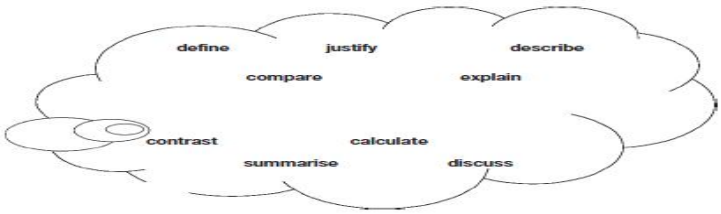
2.22.b Language

Ideally tasks should contain short sentences. Three short sentences are better than one long one. For learners further up the school who are usually working

independently it is important to ensure they have an understanding of what the question means. Understanding what the question actually means or implies can be just as challenging for some learners as the actual answer itself.

Some questions, particularly for learners further up the school, can be phrased in ways that can confuse. For example words like **calculate**, **compare**, **contrast**, **define**, **describe**, **discuss**, **explain**, **justify** *and* **summarize** can all give rise to confusion. Learners can practice using these to ensure they know the distinctions. This can be done as a game activity by providing the following phrases and asking learners to match them with those above.

The bulleted list below follows the sequence of the words displayed and can be jumbled up to make it a game activity.



- finding a numerical answer
- identifying differences and similarities
- comparing pieces of information with a focus on the differences
- giving a precise description or meaning for something
- providing a series of points in sentences that give an overview of the text or even that is being described
- displaying the points for and against a certain point and providing a conclusion at the end
- showing that you understand a particular point, text, or piece of information
- providing a statement as to why something happened or why you have a certain viewpoint

- providing a short account of a text or piece of information that provides the main outline.

Although the previous activities and some of those following are more directed for learners in the 11–18 age range, their principles can be applied to younger learners and contextualized for different aspects of learning for all age groups.

(a) Subject specific vocabulary

For learners further up the school clarification can occur in the use of technical and subject specific vocabulary. For example in biology or in food nutrition the following terms may need clarification.

(b) **Structure**

Quite often learning is a sequential experience, with new learning building on previous learning. It is therefore important to consolidate one point before moving on to another. This applies to younger learners as well as those in the 11–18 age range.

(c) **Questions**

Ideally it is more effective to encourage learners to self-question. For some learners however this may not be too easy. A framework for self-questioning should be provided. The example shown below can be adapted for all age groups.

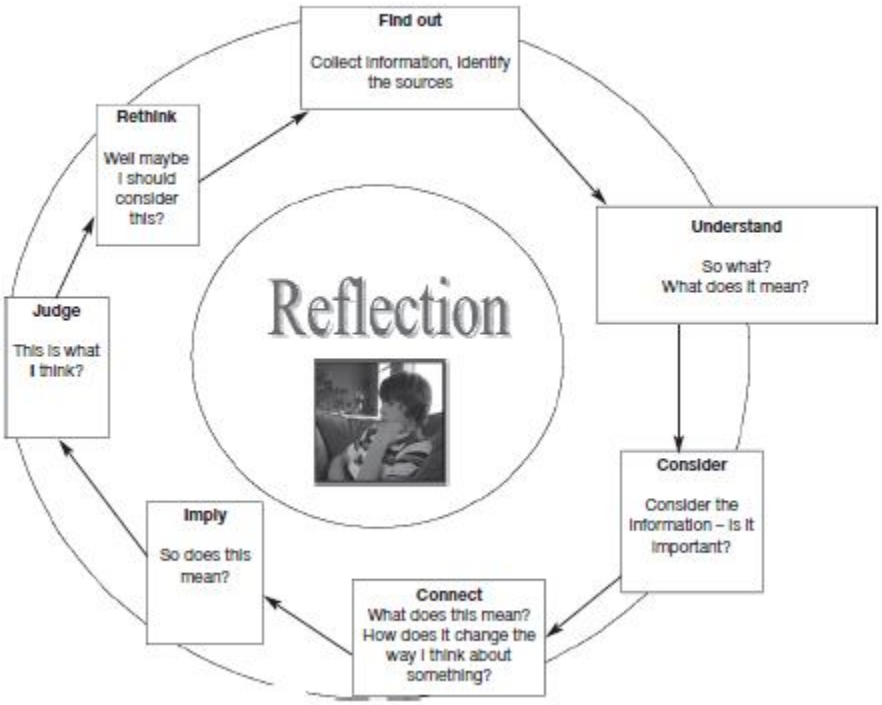
(d) **Reflection**

The questions shown above can also be used as the first stage in reflection. It is worth your while to emphasize to learners that education is not a race – whilst examinations are usually timed, learning is not. Learners differ in how long they might take to master a piece of new learning. It is crucial that learners appreciate that being first to complete a task is not necessarily an achievement. I still remember very clearly sitting a final university examination and looking at a fellow student across from me, noting that he was sitting gazing into space and did

not seem to be joining in the writing race that preoccupied all the other students in the room. I found out later when I approached the student that he was **reflecting**.

Reflection is important but can take different forms for different learners. Reflection is very individualized – some people reflect by discussing, others by listening to music, some through exercise and others by thinking alone. It is important to help learners identify their preferred way of reflecting and to support and guide them to use this effectively.

Different learners will likely adopt different styles of reflection and some of these differences will depend on particular learning styles. For example, some may prefer to reflect with the help of background music whilst others will wish for total silence. It is necessary to allow learners to select how they should reflect but this should be an integral part of the learning experience.



2.23 Learning style and task development

Learning styles have already been discussed in Chapter 3 but it is important to consider them in relation to task development. This is shown in the example below. If the task is quite challenging for learners then it is best if the learning experience focuses heavily on individual learning styles initially. This will help students get into the task more easily and then they can use other modalities. But they will perform better using their own preferred style of learning in the initial stages of learning.

2.23.a Monitoring

Monitoring is more than checking – it is a bridge between teacher-directed and learner controlled learning. Ideally the aim should be for students to direct and control their own monitoring of tasks. It is certainly much simpler for a teacher to monitor and check that students are on the right track – this is usually not too time-consuming – but it is possible to turn monitoring into a learning experience by eventually attempting to help students with self-monitoring.

Learning Style	Task
Auditory	Make lists, find out information
Visual	Make drawings, diagrams, use DVD, computer programs
Kinaesthetic	Arrange visits, activities, field trips
Persistent	Lengthy tasks, problem-solving activities
Global	Provide overview, short tasks, frequent breaks, discussion
Social	Work in groups, in pairs, discussion
Metacognitive	Problem solving, thinking skills
Tactile	Hands-on, model making, demonstration

2.23.b Assessment

One of the key factors to consider about assessment is that it is distinct from testing! A test is a product that looks at the here and now and how a learner performs on a given day with that particular test. This kind of information is important but it is only part of the overall picture of assessment.

Assessment is a process and that process should take place over a period of time ideally with different types of tasks. The idea of assessment is to build up a profile of a student to assist in further teaching and learning. Assessment therefore is a teaching procedure, not a testing one.

It is important that the learner can see the tasks in the assessment as achievable – perhaps not immediately but after some direction and guidance. The idea therefore is to use assessment to help students perform and eventually to achieve all the outcomes in the assessment. The circle of reflection shown earlier in this chapter can also be used a guide to the assessment process.

Assessment is about assessing success and should identify how students can achieve success. That can involve re-framing the task to ensure students can then understand and succeed with the task. There are a number of means of assessment such as informal assessment through observation, formal assessment through the use of testing, constructive feedback, and building on previous achievements, structured reflection, self-monitoring and self-assessment.

2.24. Expectations

(a) Setting realistic goals

Setting realistic goals and reaching these goals are all about noting the achievements that have been made and being aware of what needs to be done to develop these achievements to meet the goals. Often learners set their sights too high and ignore what they have already achieved even if they have not fully reached their target goal. It is necessary for learners to realize that reaching goals is

a process and one which they can have a great deal of control over. If they focus too much on achieving the goals that are set they may become overwhelmed because the goals may represent too big a leap. That is why they need to record achievements. It is from this that the goals can become realistic and achievable. The key point is therefore to ensure that achievements have been noted even if these seem very minor compared to the overall goal. This is shown below.

(b) Previous experience

Goals and achievements need to be built up from a foundation of experience. Previous knowledge is therefore very important but this has to be utilized effectively. Some learners have significant difficulties in accessing their previous knowledge and understanding and using this for new learning.

(c) What is realistic?

What is realistic depends on the individual learner – that is why it is important to get to know them when developing tasks – plus their strengths and weaknesses and their learning preference, as well as any background understanding they have on the topic. Other important aspects to consider in developing realistic tasks include:

- the steps and the sequence and how clearly they are provided for a learner
- a learner's experience of the topic and the type of learning they will be involved in
- the skills a learner has in self-monitoring and being able to gauge whether they are on the right track or not.

(d) Goal setting

It is important however to set learners goals that they have to strive to achieve. If a goal is too easy it may belittle the achievement and may not stimulate learners. Goals must be realistic but at the same time they must be challenging. It is this balance between what is realistic and what is challenging that places demands on teachers.

(e) Feedback

In order for learners to maintain motivation it is important that feedback is provided throughout a task as well as at the end of the task. Feedback should offer:

- **Guidance:** the key point of any feedback is to provide learners with guidance to ensure that they are progressing towards achieving the task. Guidance can and should be framed in a positive way.
- **Positive reinforcement:** it is vital to start with positive comments and then some points for development can be mentioned – it is important that positive comments are made both initially and at the end of any feedback session.
- **Assessment of progress:** ideally this should be done by a learner and the key point of this is to attempt to empower them sufficiently so that he/she can take on the responsibility of self-monitoring their own work. This highlights the need for learners to gain some control over their own learning.
- **Suggestions for further work:** it is also important that learners are left with a framework and suggestions for development. Further reading, additional resources that can be accessed and other points that can be made are all important.
- **Opportunities to develop self-monitoring and self-assessment:** essentially this is what feedback is all about – empowering a learner to take control over his/her own learning. Constructive teacher feedback framed in a positive tone can help a learner to achieve this.

2.25 Success

This part is about tasks and expectations. Irrespective of the task and the expectation it is crucial that learners can perceive and experience success. Learners' perceptions of success are important and this is applicable to children of all ages. It is worth also bearing in mind that success for a learner may be different

to their teacher's view of success. It is important that time is taken at the start of a task to ensure that these perceptions can match. A learner has to be sure of what they are trying to achieve and it is the teacher's role to ensure that this clarity and a common and achievable goal are evident. It is surprising how many learners can actually achieve the goals of a task and still think they have not done well. In this type of situation questions need to be asked about the pre-task discussion and whether or not there is a shared goal and shared expectations of the task.

2.25.a Key Points to Remember

This part has

- Examined some key aspects of task development.
- Highlighted the importance of the type of language used in tasks.
- Emphasized the need to structure tasks and to build a framework for tasks based on learners' experiences and previous knowledge.
- Strongly suggested that student reflection is important for successful outcomes and every opportunity should be made within a task for this to occur.
- Indicated that the development of all tasks needs to start from a knowledge base of a learner's style and learning preference.
- Also indicated that the teacher and the student must have a common appreciation of the task and a shared expectation of what represents a successful outcome. It is this common expectation that is important and this can determine the extent of differentiation and adaptation that is needed when developing a task.

2.26 Social and Emotional Factors

2.26.a. Social learning

Learning can be fun and in order for it to be effective it should be! Some learners however find the idea of learning in isolation quite traumatic and de-motivating and many learners need to be involved socially when they learn. This involves working in groups, or being able to collaborate with at least one other person.

2.26.b Examples of social learning

- **Group tasks**

(i) Any task that involves small groups can facilitate social learning – it is important to ensure that the progress made in groups is closely monitored

- **Paired learning**

This is two children learning at the same time. It can be in the form of a structured activity such as paired reading, paired spelling or paired thinking, or unstructured activities involving two children learning together.

- **Classroom activities**

Some classroom activities such as Circle Time can be very useful in developing social learning. These activities can promote turn taking, positive attitudes, awareness of the needs of others and the development of a positive self-concept.

- **Discussion**

This can be an excellent tool for developing social learning but it is important that all children are able to participate in the discussion – it may be helpful to provide discussion sheets to guide this and to give a role to each member of the group.

- **Drama**

Drama is an excellent example of social learning. Again it is important that all children have a role as it can be demoralizing if any child feels left out. It is

worthwhile to introduce this type of activity as early on as possible and to integrate it into every curriculum area.

- **Poetry writing and reading**

This can be an excellent way of developing self-esteem and also useful for children with reading difficulties, as poetry can rely more on imagery than prose. Often children with reading difficulties can write poetry quite well. Poetry reading can also be done in groups and this can be both fun and an excellent socializing activity.

- **Role play**

Most areas of the curriculum can be conducive to role play. History is an obvious example but it can be used in other subjects as well. The key point about role play is that it should allow a child to improvise. This is excellent for those children who may not be able to remember scripts or detailed information but have a good

imagination and can improvise well.

- **Team games**
- Team games provide another obvious example of social learning but again it is important to ensure that all children have a role to play in the team and this will involve some pre-planning to structure the activity and close monitoring throughout.
- **Songs/recitals**

  Even those children who cannot sing can find this entertaining and stimulating.

  Making up songs and performing them can provide a real boost to motivation and the involvement of all in the learning task.

- **Field work**

  Field work is a good example of collaboration – if there is little collaboration then it is likely the field activity will not be successful. It helps children to appreciate the role of others and of the importance of collaboration.

- **Surveys and interviews**

  This can be good for the meta-cognitive learner. It involves problem solving and then working in small teams and it can be used also as a team building activity, with a competitive edge introduced into it. Those readers who are familiar with the television show *The Apprentice* (which provides tasks for groups in a highly competitive situation with rewards and punishments for winners and losers), can appreciate that many intelligent adults lack the skills to work in teams in a collaborative and positive fashion. It is important that practice in this type of activity is provided at school.

2.26.b Principles for developing social learning

It is important to acknowledge that some learners will find social learning quite challenging as it involves accommodating, and at times accepting, other learners' ideas and learning habits. Social learning should therefore be introduced with some care. An important principle to start with is the need to find out what learners' social learning preferences are.

2.26. c Finding out learners' social learning preferences

This can be done through a learning styles questionnaire. For example:

- Do you prefer working on your own/ with others?
- Do you like being part of a team?
- If you had a difficult learning problem to solve would you
- Talk to one other person?
- Solve it yourself?

- Discuss it with a group?

2.27 Emotional factors in learning

- **Feeling good**

This is important as a learner has to want to learn and needs to feel good within him/herself. It is worthwhile taking time to ensure a learner is emotionally ready for the task. Some children (and adults) can feel totally swamped and overwhelmed and it is necessary to talk this through with them before they proceed. Try the Double F, P and R Formula.

- **At ease with the environment**

Learners have to feel comfortable in the environment and this may not be too obvious. Some learners have little awareness of the best environment for them to learn effectively. This is not surprising since children at school usually have very little choice over their learning environment. It is important therefore to give students some options regarding this, including wall displays, colors, the organization of desks, seating arrangements and scope for movement, as well as the level of activity and the opportunity for group learning.

- **Able to access the learning materials**

Inability to access the learning materials could be the reason why some learners stumble emotionally when learning – perhaps the books and other materials they need are beyond their current level of knowledge and understanding. This needs to be checked out with learners.

(a) Pre-task

- Identify the key points of the topic.
- Discuss these one by one with the student.
- Ascertain the level of knowledge on each of the key points.
- Identify those points that are new or unknown to the learner.

- Discuss those before embarking on the task.

(b) During the task

- Ask the student if he/she is on target.
- Do they need any further explanation?
- Do they need any further resources?
- What else do they need to complete the task?
- What are the next steps?

(c) At the end of the task

- Do they think they were successful?
- What did they find easy/difficult?
- What could/should they have known before they started the task?

Understanding is one of the key factors in developing emotional security in learning. If students do not have the background understanding then they will not be prepared for the challenges of a task. Time spent at the beginning to ensure that students have a basic understanding and the necessary background knowledge will pay dividends.

2.28 Dealing with stress

Most types of activities can help to alleviate stress. Children often feel more relaxed after exercise as long as it is not of a competitive nature or too prolonged, otherwise it can result in additional stress and fatigue.

- **Sport:**

This is a great stress reliever – it can also help to develop team building and peer friendships.

- **Music:**

It is important that the right type of music is selected – the best idea is to get a student to try to work and study with different types of music. That way they can work out which, if any, is best for them.

- **Yoga:**

Yoga involves both mental and physical capacities and can have a relaxing effect on people as it helps them to switch off from their daily routine. This is important for effective learning.

- **Reflection:**

Reflection essentially means that children need to take time out from what they are doing to reflect. This is vital and therefore must be done. Reflection can help them become aware of where they have been, where they are at and where they want to go. Often the pace of life in school is fast and furious with cramped syllabuses and high expectations. It is important therefore to allow time for reflection. School assemblies can also be used to promote reflection.

- **Talking:**

Talking through a problem or a situation can help to clarify it in one's mind. This should not be overlooked – it is important to give children the opportunity to do this. Some may not be aware of the nature of the problem until they have actually started to articulate it.

- **Sleep/rest:**

For many children school life is hectic. The pace is fast and it can be exhausting. It is important to allow time for rest and of course sleep. The source of many periods of unhappiness and misery can in fact be due to lack of rest and can be easily remedied.

- **Reading:**

Reading can be relaxing but some children have difficulty with this and for them it can be a stressful activity. It is important to try to engage all children in reading and to do this it is crucial that the right level of reading materials is found (this applies to content as well as vocabulary). Many publishers now have a series of high-low books that have high interest content but a lower level of vocabulary for reluctant readers.

Part Two: Previous Studies

As far as the researcher knows, most of the previous studies were carried out in Western Countries. A few were carried in Asia and Africa. However a number of articles have been compiled on the issue in question.

CHAPTER THREE
RESEARCH METHODOLOGY

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the method and methodology adopted by the researcher to conduct this study. To carry out the procedural part, firstly the instruments applied to the study have been considered, which contain the description of the study's population and its sample, methods of data collection, reliability and validity of the study tools, and the statistical treatments that used.

3.2 Tools and sample of the study

The researcher used the questionnaire and a diagnostic test which was used twice; once with pupils at a very unfavorable context for learning and then the same test with the same pupils at a fairly hospitable environment for learning where the result has changed quite remarkable at the latter environment. The pupils are 7^{th} level Sudanese basic school pupils.

3.3 Population and Sample of the Study

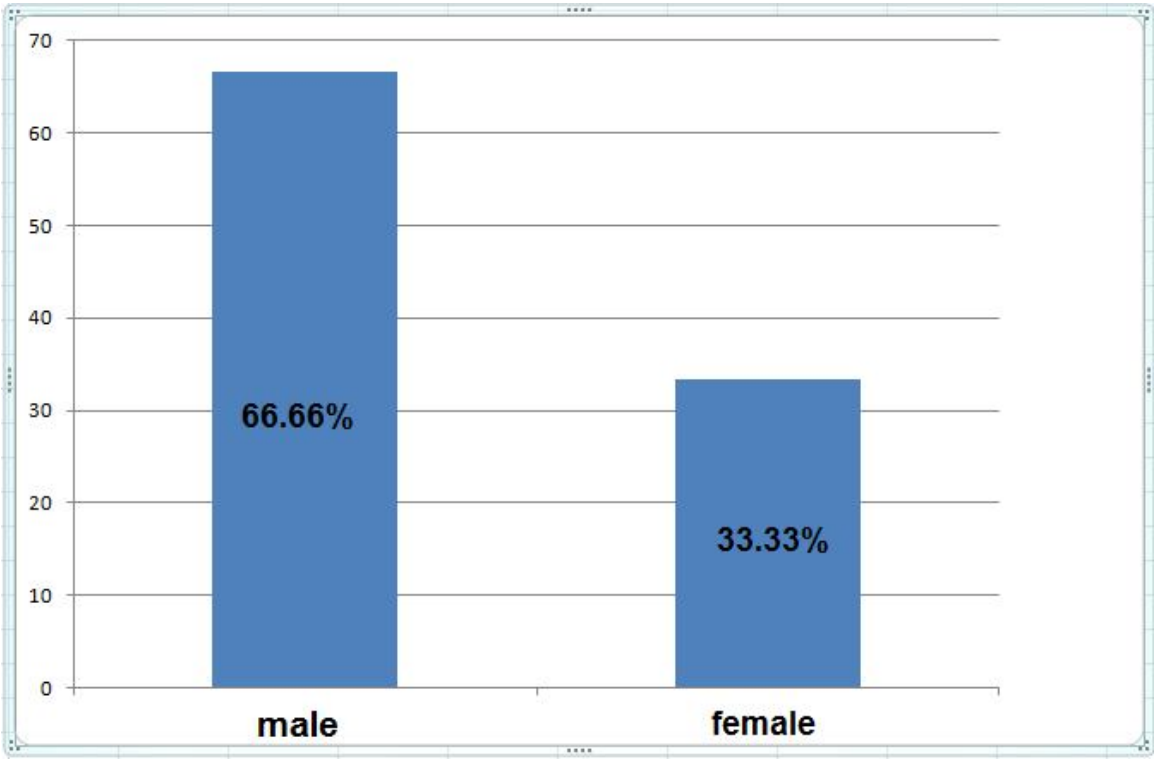
The population used in this study is the Sudanese pupils studying at a basic school setting. The following table and figure shows the number of distributed questionnaire, the number of received questionnaire with full-required information and the responses percentage.

The study sample respondents are categorized along the lines of the following parameters:

- Gender (male/female)
- Qualification (B.A/MA)
- Years of experience in teaching (1-5 years, 5-10 years ,more than 10 years)

Table No. (3-1): The frequency distribution for the study respondents according to the Gender

Gender	Number	Percent
Male	80	66.66
Female	40	33.33
Total	120	100.0



Source: The researcher from applied study, Excel Package, 2018

From above table and figure, it is shown that most of the study's respondents is Male, the number of those was (80) persons with percentage (66.6%). The female respondents were (40) persons with percentage (33.3%).

2-The Qualification:

Table No.(3-2) The frequency distribution for the study respondents according to the qualification

Degree	number	Percent
B.A.	48	40.0 %
M.A.	72	60.0 %
Total	120	100.0

3- Years of Experience:

Table No.(3-3):The frequency distribution for the study respondents according to the experience.

Experience	Number	Percent
1-5	88	73.3
5-10	24	20.0
Over 10	8	6.7
Total	120	100.0

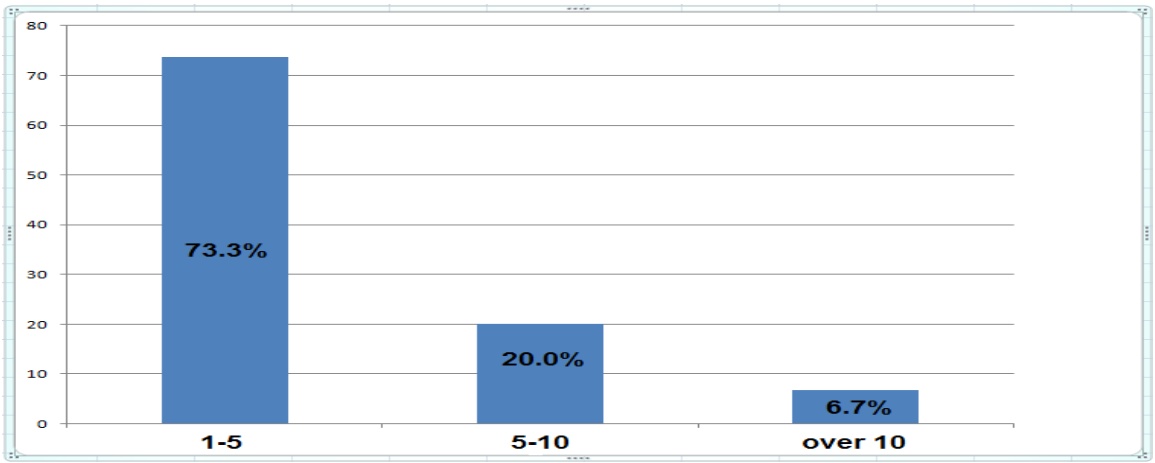


Figure no.(3-3) The frequency distribution for the study respondents according to the experience

It is clear from the table no.(3-3) and the figure no.(3-3) that, most of the sample's respondents have experience between (1) and (5) years, their number was (88) persons with percentage (73.3%). The number of sample's respondents whom have experience between (5) and (10) years was (24) persons with percentage (20.0%).and (8) persons with percentage (6.7%) have experience over 10 years.

3.4 Reliability and Validity of the Questionnaire

Apparent Reliability and Validity:

In order to check the apparent validity for the study questionnaire and validation of its variables according to the formulation and explanation, the researcher submitted the questionnaire to (5) of the Ph.D. holder referees. Some of the referees' make some suggestions, and others have agreed that the questionnaire is suitable. In anyway, the researcher examined all suggestions, and some corrections on her questionnaire have been done. The following table shows the referees and their jobs and places of work.

No	NAME	DEGREE	YEARS OF EXP.	LOCATION
1.	KIRIA AHMED NASR	PhD	20	OPEN UNINVERSITY OF SUDAN
2.	MIEMA SATI	PhD	1	DONGLA UNIVERSITY
3.	ABDULMONIEM SULIMAN	PhD	25	KHARTOUM UNIVERSITY
4.	HILARY.M PITIA	PhD	21	SUST
5.	AHMED MUKHTAR ALMARDI	PhD	23	OMDURMN ISLAMIC UNIVERSITY

Statistical Reliability and Validity:

It is meant by the reliability of any test, to obtain the same results if the same measurement is used more than one time under the same conditions. In addition, the reliability means when a certain test was applied on a number of individuals and the marks of every one were counted; then the same test applied to another time on the same group and the same marks were obtained; then we can describe this test as reliable. In addition, reliability is defined as the degree of the accuracy of the data that the test measures. Here are some of the most used methods for calculating the reliability:

1. Split-half by using Spearman-Brown equation.
2. Alpha-Cronbach coefficient.
3. Test and Re-test method
4. Equivalent images method.
5. Guttmann equation.

On the other hand, validity also is a measure used to identify the validity degree among the respondents according to their answers on certain criterion. The validity is counted by a number of methods, among them is the validity using the square root of the (reliability coefficient). The value of the reliability and the validity lies in the range between (0-1). The validity of the questionnaire is that the tool should measure the exact aim, which it has been designed for.

The researcher calculated the validity statistically using the following equation:

$$\text{Validity} = \sqrt{\text{Re liability}}$$

The researcher calculated the reliability coefficient for the measurement, which was used in the questionnaire using (split-half) method. This method stands on the principle of dividing the answers of the sample individuals into two parts, i.e. items of the odd numberse.g. (1, 3, 5, ...) and answers of the even numberse.g. (2, 4, 6

...). Then Pearson correlation coefficient between the two parts is calculated. Finally, the (reliability coefficient) was calculated according to Spearman-Brown Equation as the following:

$$\text{Reliability Coefficient} = \frac{2 \times r}{1 + r}$$

r = Pearson correlation coefficient

For calculating the validity and the reliability of the questionnaire from the above equation, the researcher was distributed about (20) questionnaires to respondents. In addition, depending on the answers of the pre-test sample, the above Spearman-Brown equation was used to calculate the reliability coefficient using the split-half method; the results have been showed in the following table:

Table (3-4): The statistical reliability and validity of the pre-test sample about the study questionnaire

Tools	Reliability	Validity
First	0.70	0.84
Second	0.80	0.89
Third	0.76	0.87
Four	0.83	0.91
Overall	0.78	0.88

Source: The researcher from applied study, 2018

We note from the results of above table that all reliability and validity coefficients for pre-test sample individuals about each questionnaire's theme, and for overall questionnaire, are greater than (50%), and some of them are nearest to one. This indicates to the high validity and reliability of the answers, so, the study questionnaire is valid and reliable, and that will give correct and acceptable statistical analysis.

Statistical Instruments

In order to satisfy the study objectives and to test its hypotheses, we use the following statistical instruments:

1. Graphical figures.
2. Frequency distribution.
3. Person correlation coefficient.
4. Spearman-Brown equation for calculating Reliability coefficient.
5. Median.
6. Non-parametric Chi-square test.

In order to obtain accurate results, Statistical Package for Social Sciences (SPSS) was used. In addition, to design the graphical figures, which are needed for the study, the computer program (Excel) was also used.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

This chapter presents the analysis of data obtained from experiment, pre-test, post test and teachers' questionnaire.

4.1 Analysis of the Experiment.

The analysis of the experiment will focus on answering vital questions on classroom creativity which is the main theme of the thesis and its effects on classroom interaction as well as on the overall standards of the students' interlanguage and knowledge of English. To answer these questions, we computed the mean, standard deviation, standard error and range for the two tests the pupils. T-test was computed to find out whether the pupils motivated after being shifted to the ideal environment for learning. The following three hypotheses will be verified or confirmed in view of the analysis of the diagnostic test as well as the questionnaire for the tutors.

4.2 Test of the Study Hypotheses

To answer the study's questions and hence verify its hypotheses, the median will be computed for each question from the diagnostic test, two tests as well as the questionnaire that shows the opinions of the study respondents about the problem in question, namely expanding classroom interaction to reinforce interlanguage and pragmatic or what is known as pragmalinguistic communicative competence. To accomplish this task five degrees for each answer "strongly agree", four degrees for each answer "agree", three degrees for each answer " neutral", two degrees with each answer "disagree", and one degree for each answer with "strongly disagree" will be given. This means, in accordance with the statistical analysis requirements, transformation of nominal variables to quantitative variables. After that, we will use the non-parametric chi-square test to know if there are statistical

differences amongst the respondents' answers about hypotheses questions. The hypotheses to be tested are as follows:

1- Most Sudanese young learners are weak in English and de-motivated

2- Learners are not encouraged to use their creative imagination in both life and language.

3- There is no suitable and motivating environment for learners.

To make the most of classroom interaction certain language material was chosen for conducting the diagnostic as well as the two tests, as the outcome of the two tests will also give insights into the type of teaching material to be used to enhance classroom interaction. The material was taken from the internet as this web-based learning, students' syllabus and other resources. As far as the diagnostic test is concerned, the first question was intended to check the students' vocabulary as regards cultural knowledge of native speakers. The question also calls on the students to use their language to describe their environment, their visit to a foreign country etc …. So it is clear that all questions have been simplified as the pupils are Grade 7th and their knowledge of English is relatively average. The following is the analysis in relation to:

(i) Statistical Reliability and validity for student's test

The reliability coefficient was calculated for the measurement, which was used in the test using Alpha - Cronbach coefficient Equation as the following:

For calculating the validity and the reliability of the test from the above equation, the researcher distributed the test to respondents to calculate the reliability coefficient using the Alpha-Cronbach coefficient the results have been showed in the following table:

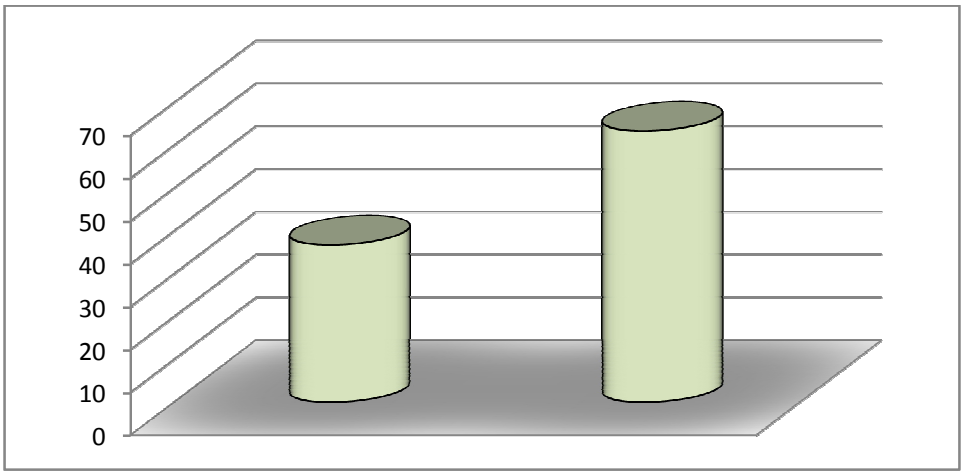
	Reliability	***Validity***	***N***
ALPH – CRONBACH	0.89	0.93	

$$\text{Validity} = \sqrt{\text{Reliability}}\ .$$

From the above table it's shown that the validity of the test is very high (0.93). This indicates that if we repeat the test we are sure with 93% that it's going to give us the same results.

Table (4-1) the frequency and percentage distribution of the students according to section (1). This is the first test the pupils has taken an extremely unfavorable environment.

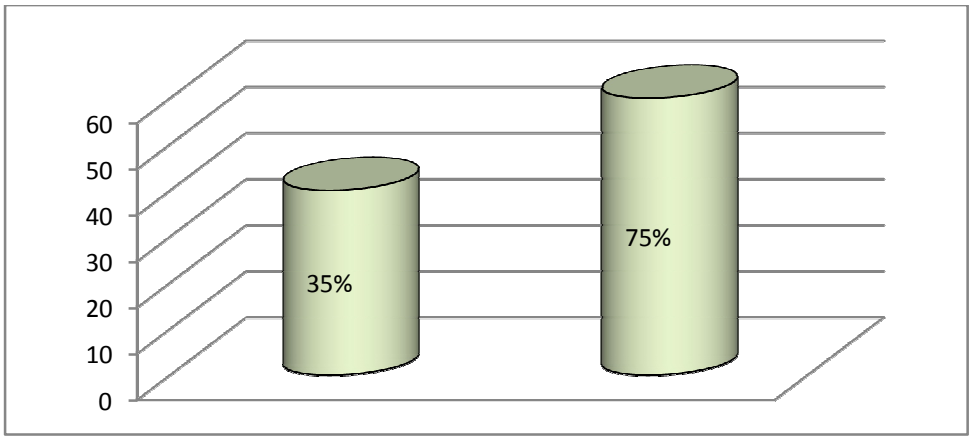
Variable	Frequency	Percentage
Success	25	41.67
Failure	35	58.33
Total	60	100



From the above table No.(4-1) and figure No (4-1) it's shown that there are as many as (25) students in the study's sample with percentage (41.67%) have managed to produce the right answer in section number , whereas as many as 35 pupils have failed (58.33%) .

Table (4-2) the frequency and percentage distribution of the students according to section (1). This is the table that demonstrate the pupils performance on the very same exam after have been shifted to a fairly friendlier and hospitable environment of learning

Valid	Frequency	Percentage
Success	45	75%
Failure	15	25%
Total	60	100



The above table reflects the apparent higher credits the pupils managed to score after being moved to a fairly advantageous environment for learning. As many as (45) pupils amounting to (75%) have succeeded in the exam where only 15 pupils failed compared to 35 in the first test.

Classroom environments are extremely **important** for students and for teachers. ... The emotional **environment** also will affect the **learning environment** and how well a student receives instruction. Emotional **Environment**. Creating a positive **learning environment** is essential for success in the **classroom.**

Classroom environments are extremely important for students and for teachers. Everything from the color of the walls to the arrangement of the desks sends impressions to students and can affect the way a student learns. The emotional

environment also will affect the learning environment and how well a student receives instruction. Creating a positive learning environment is essential for success in the classroom. Teachers should create a welcoming atmosphere where student feel safe and willing to share. Classrooms should represent the students equally and everyone should know each other's name. Teachers who use humor in the classroom also create more positive environments.

Structuring the physical environment of a classroom means strategically placing desks, students, decorations, and playing music. Desks arranged in a circle give the impression of sharing, while coupled desks work well as workstations. The color of the walls and the decorations on the walls also send impressions. Light colors open up spaces and warm colors are welcoming. Classrooms should be a place where students feel respected and feel their contributions matters. No student should be singled out or secluded in the classroom. Every student should feel accepted, wanted and respected

4.3 Analysis of the Questionnaire

This chapter is devoted to the analysis, evaluation, and interpretation of the data collected through the questionnaire which was given to 120 respondents who represent the teacher's community in British Educational Schools at the Basic level across the Capital Khartoum.

(i) The Responses to the Questionnaire

The responses to the questionnaire of the 120 teachers were tabulated and computed. The following is an analytical interpretation and discussion of the findings regarding different points related to the objectives and hypotheses of the study. Each item in the questionnaire is analyzed statistically and discussed. The following tables and figures will support the discussion.

(ii) **Analysis of the Questionnaire:**

A number of questionnaire forms have been distributed to the determined study sample (100), and constructed the required tables for collected data. This step consists transformation of the qualitative (nominal) variables (strongly disagree, disagree, neutral, agree, and strongly agree) to quantitative variables (1, 2, 3, 4, 5) respectively, also the graphical representations were used for this purpose.

(iii) Statistical Reliability and Validity:

Reliability refers to the reliability of any test, to obtaining the same results if the same measurement is used more than one time under the same conditions. In addition, the reliability means when a certain test was applied on a number of individuals and the marks of every one were counted; then the same test applied another time on the same group and the same marks were obtained; then we can describe this test as reliable. In addition, reliability is defined as the degree of the accuracy of the data that the test measures. Here are some of the most used methods for calculating the reliability:

Alpha-Cronbach coefficient.

On the other hand, validity also is a measure used to identify the validity degree among the respondents according to their answers on certain criterion. The validity is counted by a number of methods, among them is the validity using the square root of the (reliability coefficient). The value of the reliability and the validity lies in the range between (0-1). The validity of the questionnaire is that the tool should measure the exact aim, which it has been designed for.

In this study the validity calculated by using the following equation:

$$\text{Validity} = \sqrt{\text{Reliability}}$$

The reliability coefficient was calculated for the measurement, which was used in the questionnaire using Alpha-Cronbach coefficient Equation as the following:

For calculating the validity and the reliability of the questionnaire from the above equation, the researcher distributed (20) questionnaires to respondents to calculate the reliability coefficient using the Alpha-Cronbach's coefficient; the results have been showed in the following table.

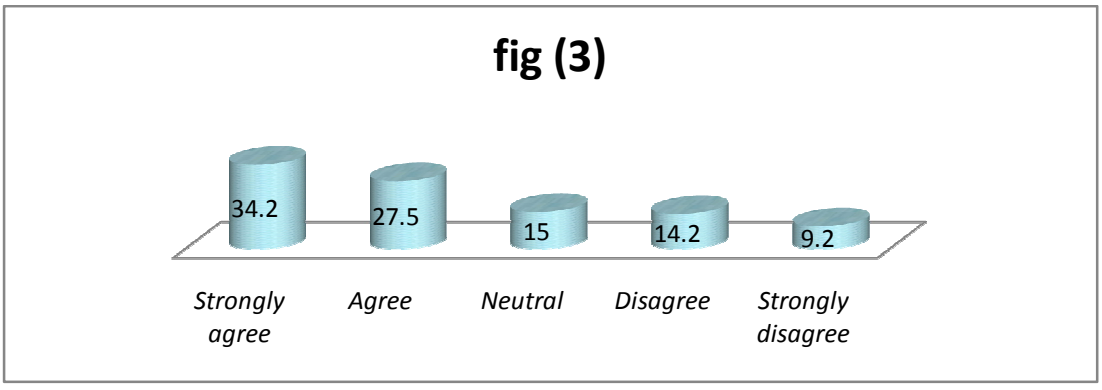
Calculated results of reliability coefficient

Scale	Validity	Reliability	Number of items
Alpha – cronbach	**0.88**	**0.94**	**15**

Now, we move to considering the variables or the statements of the questionnaire which has been distributed to 120 teachers at the different settings of the British Educational schools, which are privately, run institutions.

Statement No.(1) *Most Sudanese young learners are week in English and de-motivated.* **Table No (4-3) The Frequency Distribution for the Respondent's Answers of Statement No. (1)**

Valid	Frequency	Percentage%
Strongly agree	41	34.2
Agree	33	27.5
Neutral	18	15.0
Disagree	17	14.2
Strongly disagree	11	9.2
Total	**120**	**100**

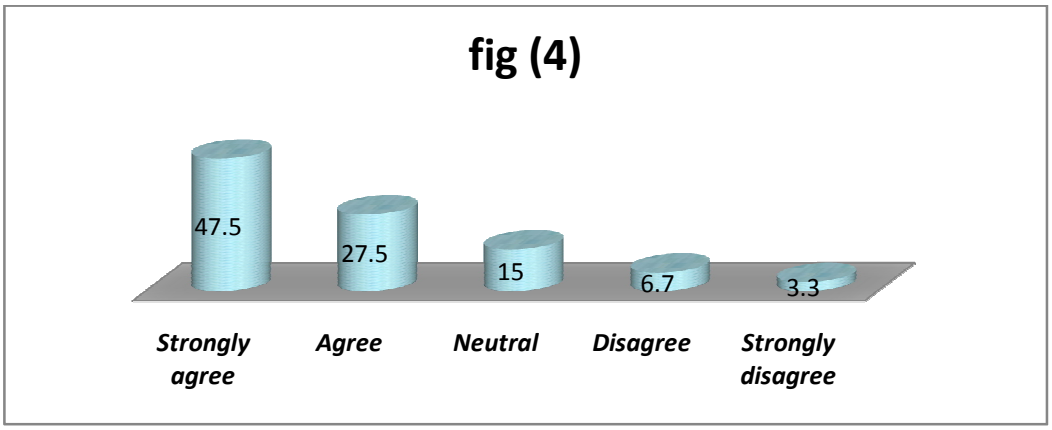


Looking at the above table No.(4-3) and figure No (4-3) that there are (41) persons in the study's sample with percentage (34.2%) strongly agreed with " **)** *Most Sudanese young learners are week in English and de-motivated.* ". There are (33) persons with percentage (27.5%) agreed with that, and (18) persons with percentage (15.0%) were not sure that, and (17) persons with percentage (14.2%) disagreed. and (11) persons with19.2% are strongly disagree.

As shown in the above table and diagram, majority of the teachers agree that Sudanese young learners are week in English and de-motivated. So this is statistically significant result and leads us to the truth that learning by traditional methods of language learning, takes time for the pupils to get used to new methods of language improving like interesting teaching and learning models. As the results of research show, interaction was found between creativity and language learning. So our learners are in deep need to the creativity in order to improve their language.

Statement No. (2) *learners are not encourage to use their creative imagination in both life and learning* **Table No (4-4) The Frequency Distribution for the Respondent's Answers of Statement No. (2)**

Variables	Frequency	Percentage%
Strongly agree	57	47.5
Agree	33	27.5
Neutral	18	15.0
Disagree	8	6.7
Strongly disagree	4	3.3
Total	**120**	**100**



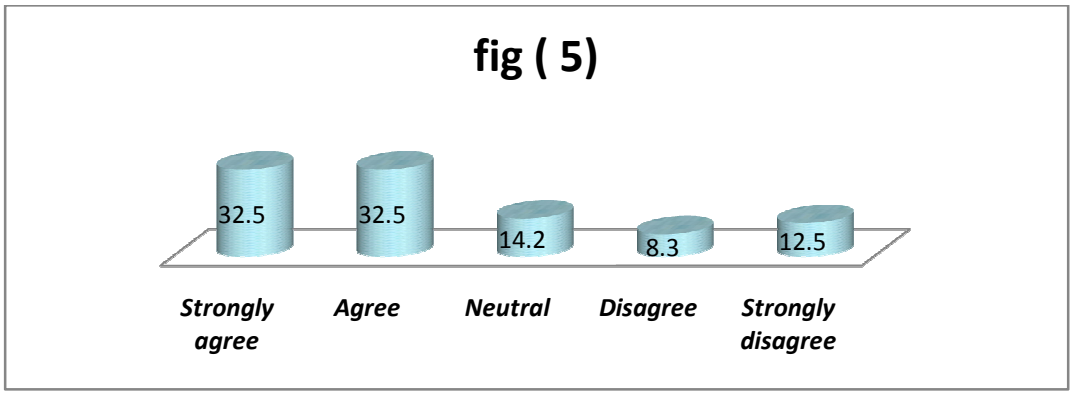
It is clear from the above table No.(4-4) and figure No (4-4) that there are (57) persons in the study's sample with percentage (47.5%) strongly agreed with " *learners are not encourage to use their creative imagination in both life and learning* .". There are (33) persons with percentage (27.5%) agreed with that, and (18) persons with percentage (15.0%) were not sure that, and (8) persons with percentage (6.7%) disagreed. and (4) persons with13.3% are strongly disagree.

Most Sudanese teachers are always seeking new remedies to convey English knowledge and manage their classrooms. Honestly, some teachers irritate because of lack of creativity and new strategies to have successful English classes. They are aware of swift progress in technology which results in informed and knowledgeable learners. Nowadays learners are interested in English learning through modern and attractive strategies. All these needs are involved with teachers' management and their creativity that most teachers are not capable to bear and perform them. Some Sudanese teachers are sensitive and embracing about their lack of sufficient creativity and intend to receive how they can be creative to improve their learners and classroom management. Creativity among teachers is widely regarded as one of the most powerful factors for the improvement of the teaching profession at schools.

Statement No. (3) *There is no suitable and motivating environment for learners*

Table No (4-5) The Frequency Distribution for the Respondent's Answers of Statement No. (3)

Variable	Frequency	Percentage%
Strongly agree	39	32.5
Agree	39	32.5
Neutral	17	14.2
Disagree	10	8.3
Strongly disagree	15	12.5
Total	**120**	**100**



As shown by the above table No.(4-5) and figure No (4-5) that there are (39) persons in the study's sample with percentage (32.5%) strongly agreed with " *There is no suitable and motivating environment for learners*. There are (39) persons with percentage (32.5%) agreed with that, and (17) persons with percentage (14.5%) were not sure that, and (10) persons with percentage (8.3%) disagreed. and (15) persons with112.3% are strongly disagree.

Motivation is a key factor in successful learning. Intrinsic motivation showed to have a significant effect on the students' verbal creativity with English, though it should be taken with some caution. These two phrases, *Motivating to Learn* and *Learning to Motivate*, are crucial for effective learning. A car will not run without fuel, children will not learn without motivation – the 'fuel' of learning. At the same

time not all children are intuitively and intrinsically motivated to learn. Some children need to be motivated and a teacher has to develop the means and methods to enable and facilitate this motivation.

Statement No (4). *The process of developing effective creative learning is like building a house.*

Table No (4-6) The Frequency Distribution for the Respondent's Answers of Statement No. (4).

Variables	Frequency	Percentage%
Strongly agree	28	23.3
Agree	42	35.0
Neutral	21	17.5
Disagree	14	11.7
Strongly disagree	15	12.5
Total	**120**	**100**

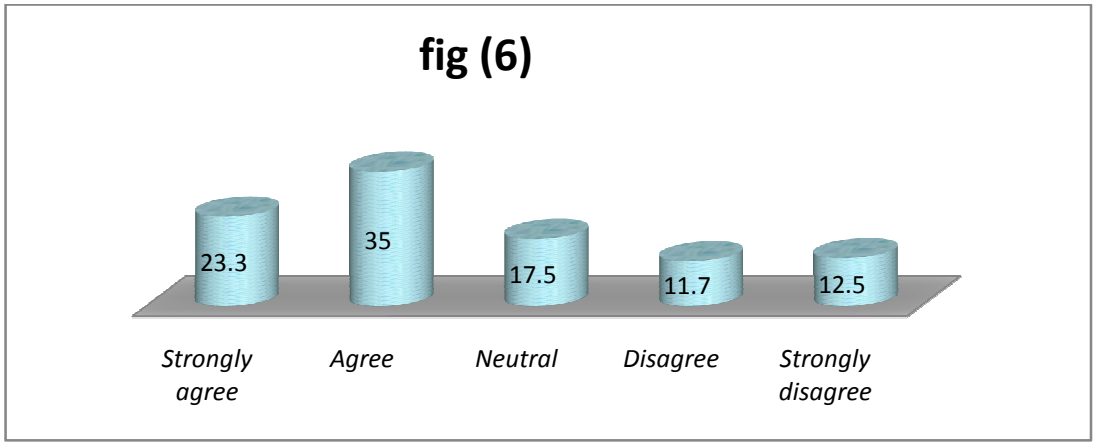


Figure (4-6) *the process of developing effective creative learning is like building a house.*

It is clear from the above table No (4-6) and figure No (4-6) that there are (28) persons in the study's sample with percentage (23.3%) strongly agreed with " *The process of developing effective creative learning is like building a house* .". There are (42) persons with percentage (35.0%) agreed with that, and (21) persons with

percentage (17.5%) were not sure that, and (14) persons with percentage (11.7%) disagreed. and (15) persons with 12.5% are strongly disagree.

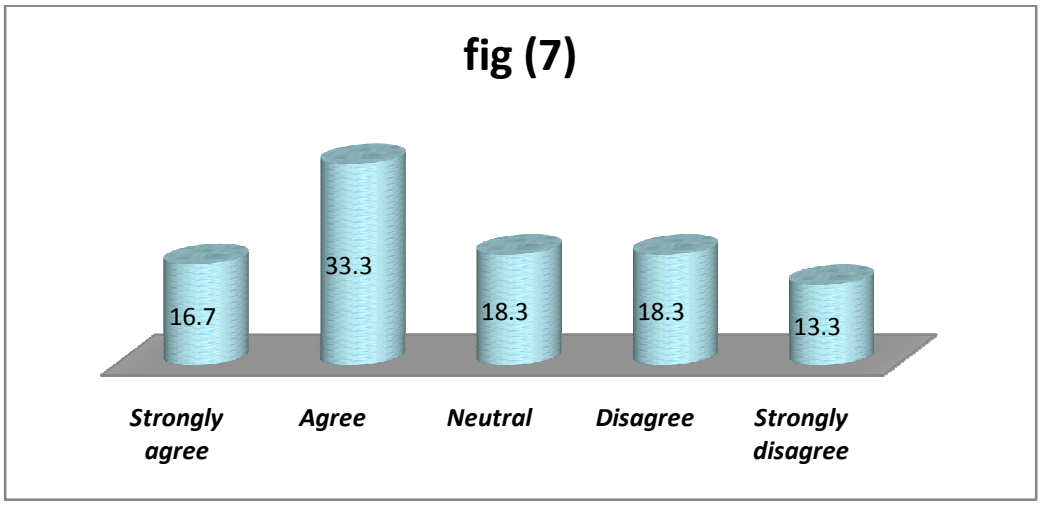
Certainly, the two processes involved here are greatly similar. A house consists of individual bricks and requires solid foundations otherwise it will collapse when under strain. Learning is the same – if the foundations for learning are not in place the learner will have difficulty when coming across new and challenging learning tasks. Again, for effective work to take place it is important to plan so that the learner is ready and prepared for new and more challenging learning tasks. Yet in practice what we find is that perhaps the curriculum is planned and the teaching is usually planned and but the learning (namely, how a learner interacts with the new material) is not. In practice it is often left to chance!

Some of the things that we should bother about is the manner in which the learning task is met and presented. How the task appears to the learner can be important. Some learners can switch off within seconds of seeing a task because it looks too formidable; the sentences are too long or the vocabulary is too complex. How learners react to a task can tell us much about them, their learning styles and their learning preferences.

Statement No (5). *Independent learning is one of the most important indicators that effective creative learning has taken place*.

Table No (4-7) The Frequency Distribution for the Respondent's Answers of Statement No. (5).

Valid	Frequency	Percentage%
Strongly agree	20	16.7
Agree	40	33.3
Neutral	22	18.3
Disagree	22	18.3
Strongly disagree	16	13.3
Total	**120**	**100**



It is clear from the above table No.(4-7) and figure No (4-7) that there are (20) persons in the study's sample with percentage (16.7%) strongly agreed with " *Independent learning is one of the most important indicators that effective creative learning has taken place*." There are (40) persons with percentage (33.3%) agreed with that, and (22) persons with percentage (18.3%) were not sure that, and (22) persons with percentage (18.3%) disagreed. and (16) persons with 13.3% are strongly disagree.

No doubt independent learning can lead to creative learning as working in absence of the teacher's or parents authority can help provide a sense of freedom which eventually leads to creativity. If learners can work independently this means that they have fully understood the task. They are able to make decisions on how to tackle new learning based on their background understanding and their capacity for independent learning. This is the beginning of creativity is to work things on one's own.

The learner who repeatedly asks someone rather than tries to work through the solution themselves can in fact be: off-loading the pressure of thinking to someone else, or at least sharing it. For some learners this is important as they need to

articulate the problem before they can even begin to solve it. Or perhaps they may be utilizing the skills of others because they have not acquired those skills themselves. They simply do not have the 'know how' to think through the problem and work out the steps themselves.

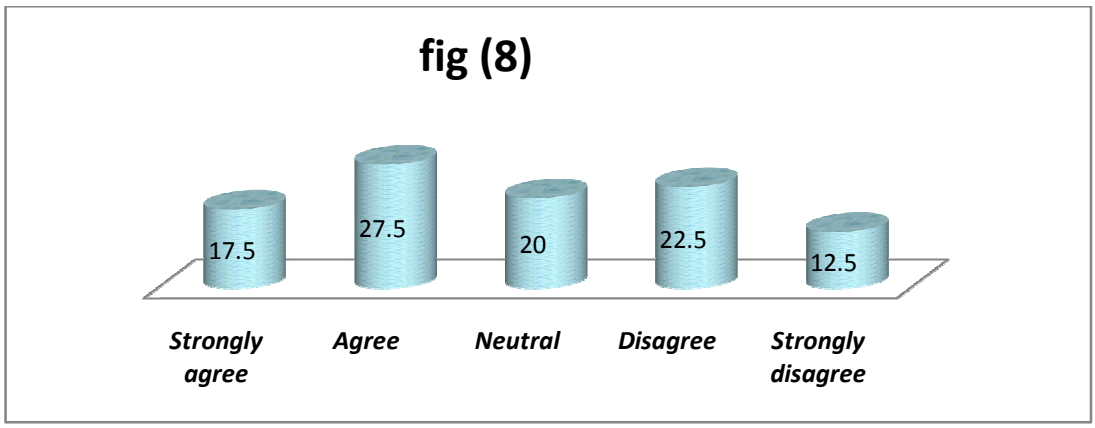
A question that should be asked is – does the education system promote independent creative learning? Many people are unable to work through a problem themselves. This may be due to the type of education they received because this education shaped their learning preferences and made them dependent on others. In recent years there has been a more obvious thrust towards problem-solving activities in the curriculum. This involves making decisions and thinking about and justifying decisions. This is the key to independent learning and often this is embedded in the learning ethos in a school.

Sudanese Pupils at the British Educational Private Schools in Sudan are provided in many instances to work on their own in order to achieve the factor of creativity in learning which is highly sought and desired ingredient. Both the teachers and the administration of these learning institutions are so concerned to encourage independent learning to guarantee that pupils in the future can work on their own as professionals and find solution to the most awkward predicaments of their day. This process in itself will lead to the formation of the concept f creativity which is the basic theme of the present study. The present research seeks to explore the element of creativity in learning and its effect in producing successful learners and future professionals.

Statement No (6). *Creativity should be part and parcel of any successful educational system or learning***.**

Table No (4-8) The Frequency Distribution for the Respondent's Answers of Statement No. (6).

Valid	Frequency	Percentage%
Strongly agree	21	17.5
Agree	33	27.5
Neutral	24	20.0
Disagree	27	22.5
Strongly disagree	15	12.5
Total	**120**	**100**



It is clear from the above table No.(4-8) and figure No (4-8) that there are (21) persons in the study's sample with percentage (17.5%) strongly agreed with " *Creativity should be part and parcel of any successful educational system or learning***.** . ". There are (33) persons with percentage (27.5%) agreed with that, and (24) persons with percentage (20.0%) were not sure that, and (27) persons with percentage (22.5%) disagreed. and (15) persons with112.5% are strongly disagree.

The word "creative" is used frequently in schools. Virtually all of us, as teachers or students, have had experiences with creative writing. Teacher stores abound with collections of creative activities or books on creative teaching of various subjects.

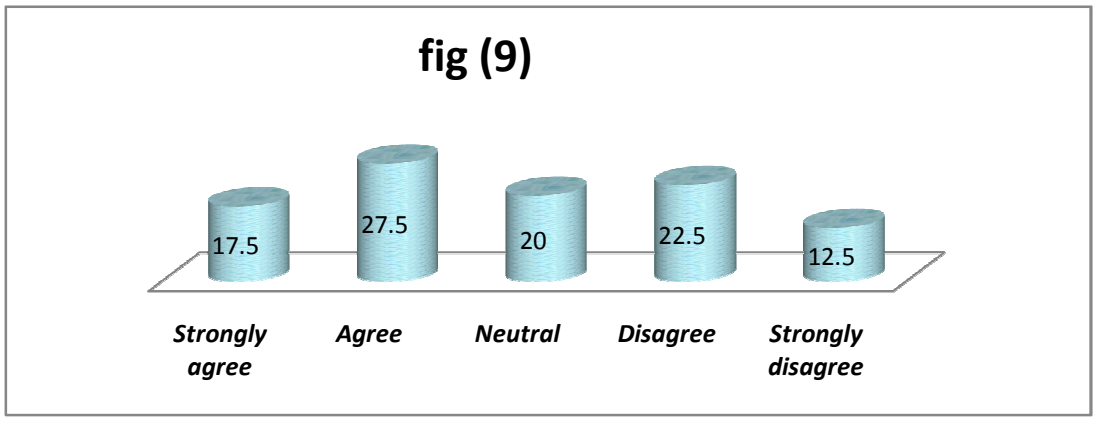
Such sources frequently provide interesting and enjoyable classroom experiences without tackling the fundamental questions: What is creativity? Where does it originate? What experiences or circumstances allow individuals to become more creative? Although collections of activities can be useful, without information on these more basic issues it is difficult for any teacher to make good decisions on classroom practices that might encourage or discourage creativity in students.

As it has already been mentioned here in the present study that creativity and independent learning are two faces of the same coin, the **British Educational Schools of Sudan** seek to establish and inculcate the sense of creativity from as early stage as grade one.

Statement No. (7)*Teachers are responsible to create places in which students learn to think, and places in which thinking can be joyful and creative.*

Table No (4-9) The Frequency Distribution for the Respondent's Answers of Statement No.(7)

Valid	Frequency	Percentage%
Strongly agree	21	17.5
Agree	33	27.5
Neutral	24	20.0
Disagree	27	22.5
Strongly disagree	15	12.5
Total	**120**	**100**



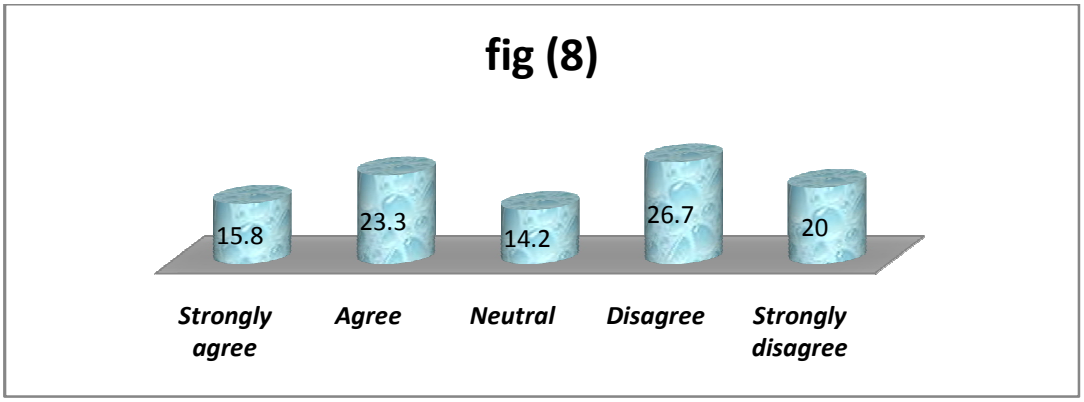
It is clear from the above table No.(4-9) and figure No (4-9) that there are (21) persons in the study's sample with percentage (17.5%) strongly agreed with " *Teachers are responsible to create places in which students learn to think, and places in which thinking can be joyful and creative*. ". There are (33) persons with percentage (27.5%) agreed with that, and (24) persons with percentage (20.0%) were not sure that, and (27) persons with percentage (22.5%) disagreed. and (15) persons with112.5% are strongly disagree.

Few critics would argue that schools should teach students to think critically and understand deeply. There is abundant evidence to suggest that the strategies that support creativity—solving problems, exploring multiple options, and learning inquiry—also support depth of understanding. We will explore those ideas later in the chapter. But in addition, joy matters. I don't believe that any good teacher can limit his or her responsibility to the transmission of content. We want our students to have zest for life and hope in their capacity—and we want them to have those things in school. It is no coincidence that in an article titled, "Joy in School" Steven Wolk (2008) cited "Let students create things" and "Take time to tinker" among the key elements of a joyful school life. In schools, we aren't punching out widgets; we are nurturing young people. In my view, an essential part of preparing students for life is helping them see that life is interesting and filled with the potential for joy. One way we do that is to help them experience creativity.

Statement No.(8) *with experiences in creativity will our students be able to prepare for the shape-shifting world they must embrace***.**

Table No (4-10) The Frequency Distribution for the Respondent's Answers of Statement No.(8)

Variable	Frequency	Percentage%
Strongly agree	19	15.8
Agree	28	23.3
Neutral	17	14.2
Disagree	32	26.7
Strongly disagree	24	20.0
Total	**120**	**100**



Judging by the table above, No.(4-10) and figure No (4-10) that there are (19) persons in the study's sample with percentage (15.8%) strongly agreed with " *with experiences in creativity will our students be able to prepare for the shape-shifting world they must embrace* . ". There are (28) persons with percentage (23.3%) agreed with that, and (17) persons with percentage (14.2%) were not sure that, and (32) persons with percentage (26.7%) disagreed. and (24) persons with120.0% are strongly disagree.

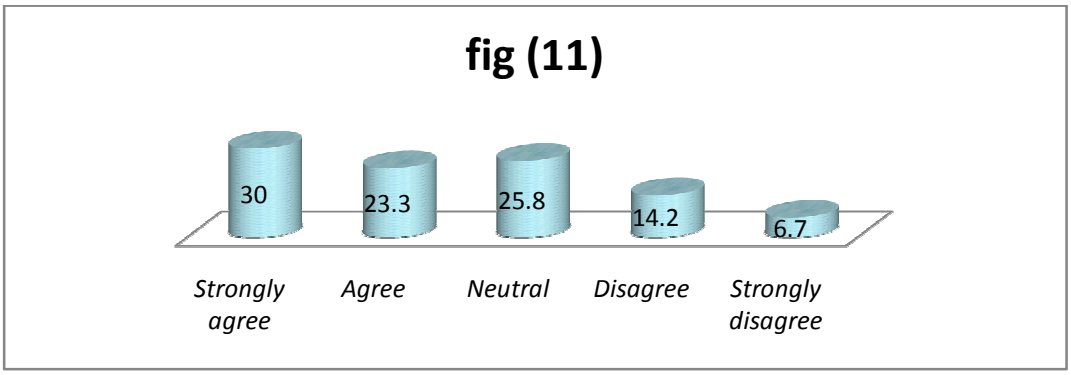
The truth is we need to do something completely different for today's students" (2005, p. 2). Robinson believes that only with experiences in creativity will our

students be able to prepare for the shape-shifting world they must embrace. It is interesting to note that in Robinson's home country of Great Britain, the government, with his assistance, has established Creative Partnerships, "the Government's flagship creative learning program, designed to develop the skills you young people across England, raising their aspirations and achievements, and opening up more opportunities for their futures" (Creative Partnerships, 2008). On the other side of the world, the Taiwanese Ministry of Education aims to make Taiwan a "Republic of Creativity" in which creativity is "indispensable to everyone's life" (Niu, 2006, p. 381). It would seem if we want our young people to be successful in the world they will inhabit, they will need more than the knowledge we can measure on traditional tests. They will need the skills, attitudes, and habits required for solving problems unimaginable today. They will need to see varied viewpoints and understand people across the globe. They will need to think flexibly and with imagination. They will need to be creative. This confirms the second hypothesis which demonstrates that ***Learners are not encouraged to use their creative imagination in both life and language.***

Statement No.(9) *A creative person always produces creative results***.**

Table No (4-11) The Frequency Distribution for the Respondent's Answers of Statement No. (9)

Variable	Frequency	Percentage%
Strongly agree	36	30.0
Agree	28	23.3
Neutral	31	25.8
Disagree	17	14.2
Strongly disagree	8	6.7
Total	**120**	**100**



It is clear from the above table No. (4-11) and figure No (4-11) that there are (36) persons in the study's sample with percentage (30.0%) strongly agreed with " *A creative person always produces creative results* ". There are (28) persons with percentage (23.3%) agreed with that, and (31) persons with percentage (25.8%) were not sure that, and (17) persons with percentage (14.2%) disagreed and (8) persons with16.7% are strongly disagree.

A number of definitions have been forwarded by different linguists as to the essence of creativity (e.g., Kaufman & Sternberg, 2006; Runco, 2007; Sternberg, 1999). Some definitions focus on characteristics of individuals whose work is determined to be creative (What is a creative person like?), whereas others consider the work itself (What makes this creative?). In either case, most definitions have two major criteria for judging creativity: novelty and appropriateness. For example, Perkins (1988a) defined creativity as follows: "(a) a creative result is a result both original and appropriate. (b) A creative person—a person with creativity—is a person who fairly routinely produces creative results" (p. 311). Although Perkins' propositions are broad, they tie together the concepts of creative people and creative activities in a neat practical package. Even so, each aspect of this simple definition poses questions.

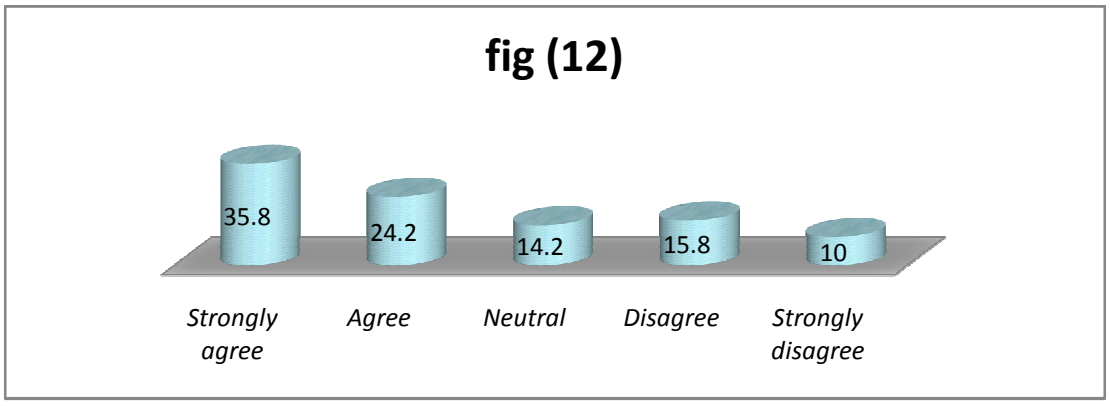
Novelty and originality may be the characteristics most immediately associated with creativity. Works of literature that imitate those before them or scientific

discoveries that are merely a rehash of earlier work are seldom considered creative. To be creative, an idea or product must be new.

Statement No.(10) *Each culture and discipline sets standards for creative activities that the concept of culture is strongly linked to creativity***.**

Table No (4-12) The Frequency Distribution for the Respondent's Answers of Statement No. (10)

Variable	Frequency	Percentage%
Strongly agree	43	35.8
Agree	29	24.2
Neutral	17	14.2
Disagree	19	15.8
Strongly disagree	12	10
Total	**120**	**100**



As regards the table above, it is clear that there are (43) persons in the study's sample with percentage (35.8%) strongly agreed with "*Each culture and discipline sets standards for creative activities that the concept of culture is strongly linked to creativity.* ". There are (29) persons with percentage (24.2%) agreed with that, and (17) persons with percentage (14.2%) were not sure that, and (19) persons with percentage (15.8%) disagreed. and (12) persons with110.0% are strongly disagree.

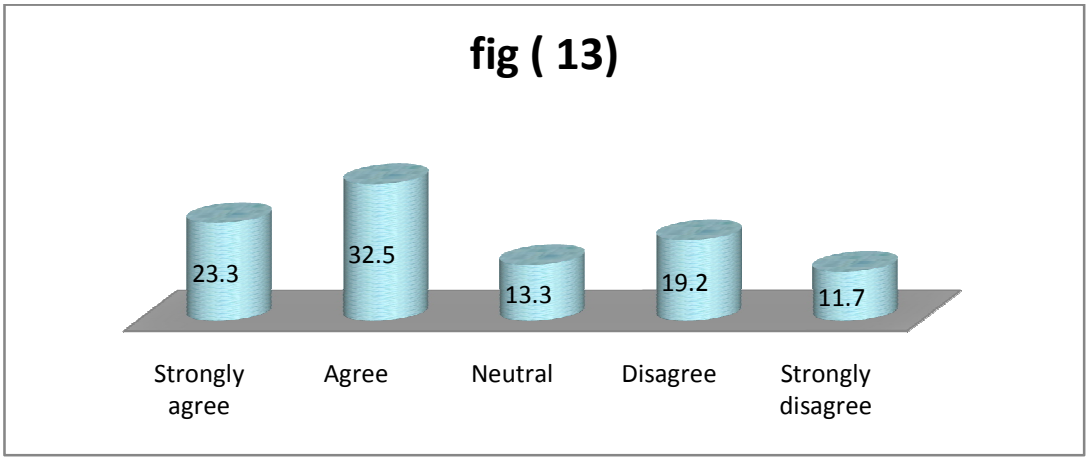
It is immensely true that each culture and discipline sets standards for creative activities. In many Western cultures a story has a beginning, middle, and end, as well as an identifiable conflict and climax. In other cultures with elaborate oral traditions, the shape of a story may be very different, embracing multiple side roads and circles. Criteria for judging African ceremonial masks are very different from those for evaluating Italian *commedia dell'arte* masks. Nonetheless, the creative efforts in each case are eventually considered to meet some standard and be accepted by some audience.

Adult standards of appropriateness, however, are generally not suitable for children. Few expect elementary school students' paintings or stories to match those of Cassatt or Fitzgerald. We can consider children's efforts appropriate if they are meaningful, purposeful, or communicative in some way. If students successfully communicate an idea or endeavor to solve a problem, their efforts can be considered appropriate. If they do so in a way that is original, at least to them, we can consider the efforts creative.

Statement No. (11) *Many kinds of personal characteristics may be important in the development of creative student most important of which is culture*.

Table No (4-13) The Frequency Distribution for the Respondent's Answers of Statement No. (11)

Valid	Frequency	Percentage%
Strongly agree	28	23.3
Agree	39	32.5
Neutral	16	13.3
Disagree	23	19.2
Strongly disagree	14	11.7
Total	**120**	**100**



It is clear from the above table No.(4-13) and figure No (4-13) that there are (28) persons in the study's sample with percentage (23.3%) strongly agreed with " *Many kinds of personal characteristics may be important in the development of creative student most important of which is culture*.. ". There are (39) persons with percentage (32.5%) agreed with that, and (16) persons with percentage (13.3%) were not sure that, and (23) persons with percentage (13.3%) disagreed. and (14) persons with111.7% are strongly disagree.

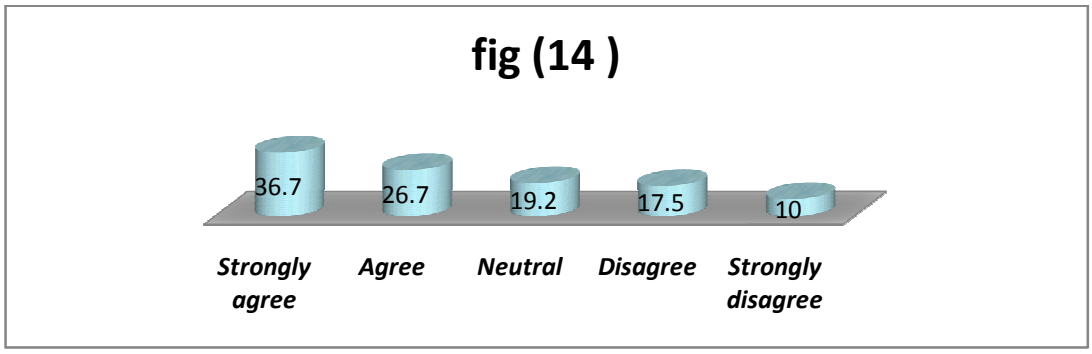
Certainly a number of qualities are required to produce a creative student or individual. These can be divided into three general categories: cognitive characteristics, personality traits, and biographical events. Creative individuals may be distinguished by the ways they think; by their values, temperament, and motivation; and by the things that happen during their lives. It is important to note that these patterns and the relationships among them are enormously complex. Just as there is no single theory of creativity, there is no generic creative person. The characteristics of creative individuals vary among people and among disciplines. A creative composer has strengths, needs, and values different from those of a creative physicist, and no two creative physicists are exactly alike. Despite these variations, there are enough patterns to suggest some commonalities worth exploring. In examining these commonalities, one more caveat is in order.

Identifying traits in highly creative adults does not guarantee that similar traits are present in creative children or children who may grow into creative adults. At the end of the chapter, I look at some research on young people who have been identified as creative and show how it dovetails with research on creative adults. It does present some promising beginnings. We must, however, admit that our knowledge of creativity as manifested in children is limited. Having done so, we use the research available as well as we can. Because we lack definitive answers, our most practical course of action is to consider identifying and supporting positive characteristics associated with creativity wherever we find them. Identifying them is our goal for this chapter.

Statement No. (12) *There is a strong relationship between creativity and intelligence.*

Table No (4-14) The Frequency Distribution for the Respondent's Answers of Statement No. (12)

Valid	Frequency	Percentage%
Strongly agree	44	36.7
Agree	32	26.7
Neutral	23	19.2
Disagree	9	17.5
Strongly disagree	12	10.0
Total	**120**	**100**



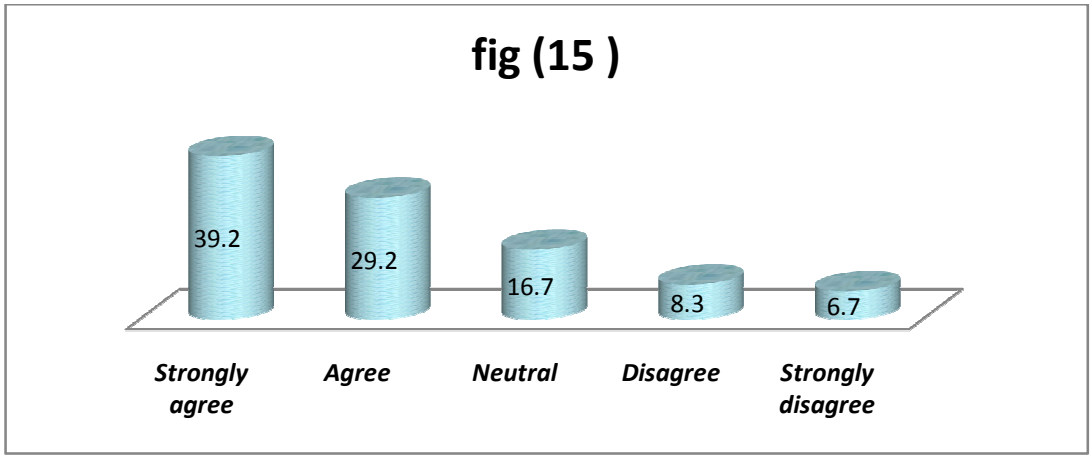
It is clear from the above table No.(4-14) and figure No (4-14) that there are (44) persons in the study's sample with percentage (36.7%) strongly agreed with "**)** *There is a strong relationship between creativity and intelligence.* ". There are (32) persons with percentage (26.7%) agreed with that, and (23) persons with percentage (19.2.3%) were not sure that, and (9) persons with percentage (17.5%) disagreed. and (12) persons with110.0% are strongly disagree.

It is true as stated above that the most accurate description of the relationship between creativity and intelligence was designated “it depends.” If, like Guilford (1986), you define creativity as part of intelligence, the relationship is quite simple: Creativity is intelligence, or at least part of it. Most theorists, however, distinguish between the two, even if they do so somewhat muddily. In most cases, those who hypothesize that creativity is the product of the same basic cognitive processes as other thoughts recognize that the production of novel, appropriate ideas is distinct from the production of accurate, analytical but unoriginal ideas. Yet experience and common sense seem to indicate a relationship between the two. We probably would be surprised to see an outstanding creative contribution coming from a person of severely limited intelligence. Notwithstanding the extraordinary accomplishments of some individuals with savant syndrome, the vast majority of inventions, scientific breakthroughs, great works of literature, and artistic innovations appear to be made by intelligent people. How intelligence facilitates creativity is the subject of debate and ongoing study.

Statement No. (13) *The role of teachers in introducing creativity in classroom is great and critical.*

Table No (4-15) The Frequency Distribution for the Respondent's Answers of Statement No. (12)

Valid	Frequency	Percentage%
Strongly agree	47	39.2
Agree	35	29.2
Neutral	20	16.7
Disagree	10	8.3
Strongly disagree	8	6.7
Total	**120**	**100**



It is clear from the above table No.(4-15) and figure No (4-15) that there are (47) persons in the study's sample with percentage (39.2%) strongly agreed with " *The role of teachers in introducing creativity in classroom is great and critical*. ". There are (35) persons with percentage (16.7%) agreed with that, and (20) persons with percentage. (8.3%) were not sure that, and (10) persons with percentage (6.7%) disagreed. and (8) persons with110.0% are strongly disagree.

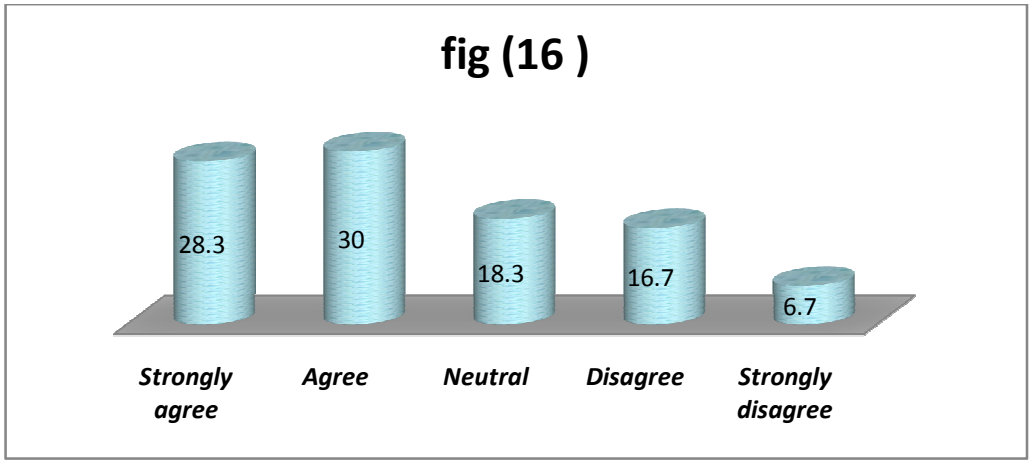
Teachers always hope to help students increase their creativity. So they need to determine which aspects of creativity can be influenced and what our role is in that

process. As the preceding chapters make clear, there are diverse points of view as to the origin of creativity, how it is exhibited, and what types of activities might encourage it. Our role as teachers will vary depending on the theories and models of creativity we follow. If, as did Plato, we believe that creativity stems from the intervention of the muses, there is not much we can do (unless we can determine what attracts the muses!).

Statement No. (14) *Motivation is a key factor in successful creative learning.*

Table No (4-16) The Frequency Distribution for the Respondent's Answers of Statement No. (12)

Valid	Frequency	Percentage%
Strongly agree	34	28.3
Agree	36	30.0
Neutral	22	18.3
Disagree	20	16.7
Strongly disagree	8	6.7
Total	**120**	**100**



It is clear from the above table No.(4-16) and figure No (4-16) that there are (47) persons in the study's sample with percentage (39.2%) strongly agreed with " *Motivation is a key factor in successful creative learning.* .". There are (35) persons

with percentage (16.7%) agreed with that, and (20) persons with percentage (8.3%) were not sure that, and (10) persons with percentage (6.7%) disagreed. and (8) persons with110.0% are strongly disagree.

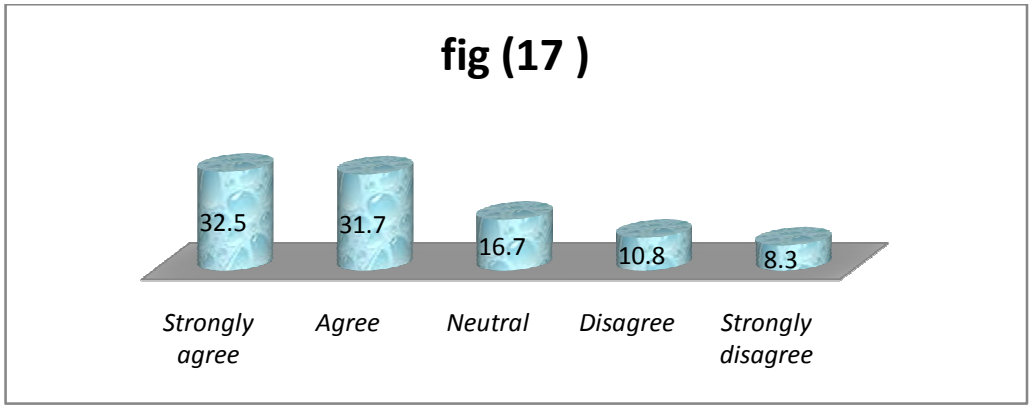
Truly, Motivation is a key factor in successful learning and this part will focus on strategies to develop motivation. Ideally motivation should be intrinsic – that is, a learner is self-motivating. To achieve this however a learner needs to have a desired goal and some determination to succeed. Children who experience barriers to learning, such as those with dyspraxia and dyslexia, can find motivation challenging as repeated failure will result in serious de-motivation. As referred to in the previous chapter, this state is often referred to as 'learned helplessness'. It is crucial that a learner does not reach this state and for that reason early success is important when tackling new tasks. It is also important that both the extrinsic (rewards) and the intrinsic (self-motivation) are taken into account in the planning of learning.

An educator remembers his experience in a conference on motivation. He starts saying several years ago he spoke at a conference with an intriguing title – Motivating to Learn, Learning to Motivate (RTLB Conference, Dunedin, New Zealand, 2003). The conference organizers really ought to have been congratulated for that title – they got it right. These two phrases, *Motivating to Learn* and *Learning to Motivate*, are crucial for effective learning. A car will not run without fuel, children will not learn without motivation – the 'fuel' of learning. At the same time not all children are intuitively and intrinsically motivated to learn. Some children need to be motivated and a teacher has to develop the means and methods to enable and facilitate this motivation.

Statement No. (15) *Social interaction can be beneficial as it can help develop important social skills.*

Table No (4-17) The Frequency Distribution for the Respondent's Answers of Statement No. (15)

Valid	Frequency	Percentage%
Strongly agree	39	32.5
Agree	38	31.7
Neutral	20	16.7
Disagree	13	10.8
Strongly disagree	10	8.3
Total	**120**	**100**



It is clear from the above table No.(4-17) and figure No (4-17) that there are (39) persons in the study's sample with percentage (32.5%) strongly agreed with " *Internet cost hinders its use in education*. ". There are (38) persons with percentage (31.7%) agreed with that, and (20) students with percentage (16.7%) were not sure that, and (13) persons with percentage (10.8%) disagreed. and (10) persons with18.3% are strongly disagree.

It goes without saying Social interaction can be beneficial as it can help develop important social skills, such as turn taking and sharing and listening to other people's opinions. The process of helping and working with others can in itself be

motivating. Group dynamics can be positive or negative and it is important to ensure that the composition of a group is beneficial to all. A constructive and positive group working harmoniously can be a significant motivator. A motivated group will be able to pull the resources of all the members of the group together and this can be a strong motivating force.

It can be quite illuminating talking to a group of high achievers. Some very successful learners are not aware of their own success. They may measure or perceive success in a different way to others. A student who is accustomed to obtaining straight 'A's may feel a failure if she/he obtains a 'B' – yet this can be a highly commendable grade. The 'must be best' syndrome is quite widespread in today's competitive society and although this has some positive elements it can be seen as a very risky strategy and one that can place enormous pressure on the learner.

4.4 Summary

This chapter as apparent from its title: Data analysis and discussion, has analyzed the collected data through the test and the questionnaire to confirm the hypotheses of the study and find answers for the questions posed in chapter one.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMENDATION

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMENDATION

This chapter provides a summary of the study, conclusions, recommendations and suggestions for further studies.

5.1 Summary and Conclusion

This study is an attempt to explore the theme of creativity among young learners with special reference to Sudanese British Educational Schools, a privately run educational institutions. The aim is to find out whether the certain element if positively incorporated can have the effect of promoting the talent of creativity among young learners and further can help improve the standards of our students at universities in learning English. To find answer to the pose question, the study surveyed the teachers' viewpoints in relation to the issue in question.

Basically, the study sets out to examine the questions:

1- Are Sudanese young learners generally weak in English language and demotivated?

2- How far are young learners encouraged to use their creative imagination both in life and language?

3- To what extent is the learning environment suitable for young learners?

The researcher has adopted a number of objectives to be explored in combination with the questions and the hypothesis to set the tone for the completion of the study in a profound manner. The objects are as follows:

- .Analyze and diagnose the obstacles that face learners and teachers in creating a motivating atmosphere.
- Give constructive feedback to teachers.

- Help learners to use language creatively in a large context outside the class.
- Develop our learners' thoughts and ideas.
- Develop materials can train teachers to use creativity in the classrooms.

The significance of the present research stems from the fact that it took as its target the examination of young learners' personalities and hence their abilities to think and act independently and creatively. What is more it has chosen as the field of the study a privately run institution of learning, namely the British Educational Schools for young learners. Exploring the theme of creativity in learning has been one of the salient points that made the present research worthwhile. In order to account for the concept of creativity, the researcher examined a number of moderately valuable resources to fully inform the thesis.

The researcher reviewed the theory of creatively right from the time of ancient Greek and Roman providing a wealth of materials on the views of Plato and Aristotle. In *The Ion*, Plato writes about Socrates' responses to questions concerning the creative process in poetry. He describes the poet as under the influence of a divine madness that carries him out of his senses.

Aristotle did not believe that creative products came through mystical intervention or unique creative processes. He believed that just as plants and animals produced young in a rational, predictable fashion, so art, ideas, and other human products derived from logical steps of natural law. His approach may have appealed to Tchaikovsky, for whom much of the creative process was the result of "cool headwork and technical knowledge" (Vernon, 1975, p. 58).

Beginning in the 19th century, psychologists have presented a variety of theories to explain creativity. Each author brings to the task a specific theoretical perspective, the lens through which he or she views a range of human behaviors. A theorist who believes human behavior is largely the result of subconscious forces will view

creativity differently from one who believes behavior can better be explained by conscious learning through experience. For the clusters of theorists presented in this chapter, think about how each theory of creativity fits into a broader perspective of thinking about human thought and behavior.

The researcher has also explored in this respect the different views of psychoanalysis school. Psychoanalytic theories explain human behavior, development, and personality traits as shaped by powerful unconscious processes. Such theories attempt to uncover the unseen needs that motivate individuals' actions, often looking to childhood events to comprehend adult behavior.

Freud believed that human behavior could be explained by examining conflicts between unconscious desires and acceptable outward behavior. He postulated three aspects of human personality: the ego (logical conscious mind), the id (primitive unconscious drives), and the superego (a conscience-like force that acts as mediator between the other two). Freud tied creativity and much other behavior to the sublimation of drives deriving from the id. If an individual cannot freely express his or her desires, those desires must find release in other ways or be sublimated. Freud believed that beginning in childhood, a person must repress his or her sexual desires in order to fit into conventional society.

Thus he saw these sexual urges as particularly powerful forces that must be countered by psychic defenses. Many of the defense mechanisms, he postulated, resulted in unhealthy behaviors and various neuroses. Creativity, on the other hand, represented a healthy form of sublimation, using unfulfilled unconscious drives for productive purposes.

The study has given special attention to creativity in classroom settings. Teachers always hope to help students increase their creativity. So they need to determine which aspects of creativity can be influenced and what our role is in that process.

As the preceding chapters make clear, there are diverse points of view as to the origin of creativity, how it is exhibited, and what types of activities might encourage it. Our role as teachers will vary depending on the theories and models of creativity we follow. If, as did Plato, we believe that creativity stems from the intervention of the muses, there is not much we can do (unless we can determine what attracts the muses!).

The study has managed to highlight factors of motivation in relation to creativity. Motivation is a key factor in successful learning. Ideally motivation should be intrinsic – that is, a learner is self-motivating. To achieve this however a learner needs to have a desired goal and some determination to succeed. It is also important that both the extrinsic (rewards) and the intrinsic (self-motivation) are taken into account in the planning of learning.

For many, the sight or indeed the thought of certain types of tasks can be sufficient to demotivate them. There is therefore an onus on teachers to develop achievable tasks. This in turn can be the first major barrier that has to be overcome in order to maintain motivation. Some learners, if they have experienced repeated failure, will become totally de-motivated and will not want to engage in learning new material in any way at all. It is important that children can experience success before they become de-motivated. It is for that reason that great care must be taken when developing tasks to ensure that these are motivating and importantly that a learner believes a task is achievable. It is necessary that a task is broken down into small steps and that every step represents an achievable and rewarding outcome for a learner.

The researcher has been so concerned to account for diversity and learning styles among young learners. A child's learning patterns are often the result of how they were taught and the learning environment and ethos of schools. For some children

this is perfectly satisfactory as their styles and preferences match those of their schools.

For others however this may not be the case. For that reason it is important to encourage diversity in children's learning preferences. This can be done by offering them choice and giving them the opportunity to utilize their own learning style in the classroom. Some mediating factors that can influence the use of learning styles are culture, school climate, teacher and parent expectations, teaching style and classroom norms and practices. It is therefore important to reflect on the above and ensure that flexibility is used to encourage diversity.

The researcher also handled the question of self-belief. Self-belief is crucial if one is to accomplish any degree of success and motivation, yet often the education system is geared to select and to grade. These factors can totally wipe out any element of self-belief, so it is important to recognize and acknowledge any achievements – no matter how small they may seem to others. These can be huge for the individual learner. Even those who seem to have achieved a great deal of success – in the classroom or on the playing field – still need and rely on positive feedback to ensure that they can believe in their own abilities. It is often those who seem to have achieved a great deal who have a surprisingly low level of self-belief. This can be because they are not receiving the positive feedback they actually need. The common perception might be that these children do not need it because they know they are successful. The key point here is not to take this for granted and assume that some successful learners do not need positive and continuous feedback and encouragement in order for them to develop and maintain self-belief.

Age-appropriate-materials were also considered. It is too easy, particularly with learners who have reading difficulties, to provide them with a text that may be at their reading level but not at their interest level. Obtaining age-appropriate

materials for learners with reading difficulties is essential in order to develop motivation. Many publishers now provide reading materials that are high on interest but have a lower level of vocabulary.

The researcher also thought of informal observation as a factor for developing creativity. Before developing materials for a class it is important that some knowledge of the individuals within the class is acquired. One of the most effective ways of doing this is through informal observation. The headings below can be used to acquire information on each child. For each of the headings you are asking how the learner deals with each category. For example how does he/she organize information? In what type of learning situations do they attend best? How do they interact with others in the class – is it a positive interaction? What types of factors motivate them to learn? The headings below can be used flexibly to obtain any type of information that can be useful.

Special attention in the present study has been given to the learning environment. The learning and classroom environment has an important role to play in effective learning, so what are the key components of the learning environment? These are all the factors that influence the learning experience. This can differ in different cultures and in different classrooms. The important aspect is that as many of the environmental factors as possible should be considered.

To mention by way of example in relation to the question of classroom environment is the lighting in the classroom is important as there is now considerable evidence that learners can be sensitive to different ranges and types of lighting. There is a general agreement that fluorescent lighting is not the most effective for the majority of learners. It is a good idea therefore to ensure that there are small table lamps in the classroom in quiet corners.

Tasks and expectations for creative learning have thoroughly been considered. Learners need to be optimistic – that is the source of motivation and eventual success. At the same time they need to be realistic and set themselves tasks and goals that can be realized. This is an important factor for motivation and effective learning. The actual task that is set and the expectations of how that task can be achieved are crucial for motivation.

A successful learning outcome starts with the task – and not the learner. It is the task that can determine the outcome. Ideally tasks should contain short sentences. Three short sentences are better than one long one. For learners further up the school who are usually working independently it is important to ensure they have an understanding of what the question means. Understanding what the question actually means or implies can be just as challenging for some learners as the actual answer itself.

A number of factors were actually considered. Some questions, particularly for learners further up the school, can be phrased in ways that can confuse. For example words like **calculate**, **compare**, **contrast**, **define**, **describe**, **discuss**, **explain**, **justify** *and* **summarize** can all give rise to confusion. Learners can practice using these to ensure they know the distinctions. This can be done as a game activity by providing the following phrases and asking learners to match them with those above.

5.2 Recommendations

Based on the findings of this study, the following recommendations are suggested:

1- Tutors should seek to establish the concept of creativity through encouraging the processes of independent thinking and acting.

2- Tutors should encourage their students to have their own ways of doing things in an attempt to implant the sense of creativity in young learners.

3- Tutors and teachers should work towards designing a program with the intention of developing the skills of young people across the country, raising their aspirations and achievements, and opening up more opportunities for their futures.

4- Special attention should be given to the fact that all students can improve and by nature they are endowed with spirit of creativity which only needs to be flared up.

5- Feedback should not be neglected as our sole assessing or yardstick of our pupils' ongoing development.

5.3 Suggestions for further studies

This study put forward the following suggestions for future researchers:

1- More evidence is required to substantiate the inculcation of the concepts of creativity in our young learners.

2- Much research is needed into this fledgling area of creativity in our syllabuses and classroom settings.

3- Expertise, educators and syllabus designers should seek to establish so firmly the concept of creativity in our syllabuses in order to a better and completely different generation in the future.

BIBIOLGRAPHY

Bibliography

Albert Rothenberg, Carl R. Hausman (1976). The Creativity Question.

Ambile, T.M. (1983). The Social Psychology of Creativity.

Amabile, T. & Pillemer, J. (2012). Perspective on the Social Psychology of Creativity. The Journal of Creative Behavior.

August, D., & Hakuta, K. (1997). Improving Schooling for Language Minority Children: A research agenda.

Berkeley, CA: McCutchan. Amabile, T. M. (1989). Growing Up Creative.

B.F. Skinner (1991). Creativity and the Problem of Spontaneous Behaviour.

Bloom, B.S. (1976). Human Characteristic and School Learning.

Blunkett, L. Stubbs, M.(1999). Third International Conference on Teaching and Language Corpora, Peter Lang.

Carl Rogers, C.R. (1961). On Becoming a Person.

Craft, A. (2002). Creativity and Early Years Education.

Cremion, T., Barnes, J., &Scoffham, S. (2009). Creative teaching for tomorrow:Fostering a creative state of mind. Kent: Future Creative CIC.

Cropley, A. J. (2000). Defining and measuring creativity: Are creativity tests worth using? Roeper Review.

Diane Haager, Janette K. Klinger and Terese C. Aceves (2010). How to Teach English Language Learners: Effective Strategies from Outstanding Educators.

Florida, R. L. (2002). The rise of the creative class: and how it's transforming work, leisure, community and everyday life.

Frank Barron (1963). Creativity and Psychological Health.

Frank Barron, David M Harrignton (1981). Creativity, Intelligence, and Personality.

Gardner, R. C. (1985). Social Psychology and Second Language Learning: The Role of Attitudes and Motivation.

Guilford, J. P. (1968). Intelligence, creativity and their educational implications.

Harman, Willis and Rheingold, Howard (1984). Higher Creativity.

Howard E Gardner (1993). Creating Minds: Anatomy of Creativity Seen Through the Lives of Freud, Einsten, Picasso, Stravinsky, Eliot, Graham, and Ghandi.

Jack C. Richard & Theodre S. Rodgers (2001). Approaches and Methods in Language Teaching.

Lawrence S Kubie (1950). Practical Theoretical Aspect of Psychoanalysis.

Lyne Cameron (2001). Teaching Language to Young Learners.

Mackinnon, D.W. (1978). In Search of Human Effectiveness: Identifying and Developing Creativity.

Maslow, A.H. (1954). Motivation and Personality.

Maslow, A.H. (1962). The Creative Attitude.

Maslow, ,A.H. (1968). Toward a Psychology of Being.

Mednick, S. (1962). The Associative Basis of the Creative Process.

Ottó, I. (1998). The relationship between individual differences in learner creativity and language learning success.

Perkins D.N. (1988). The Possibility of Invention.

Piaget, J. (1962). Play, Dreams, and Imitation in Chilhood.

Roe (1952). Personality and Individual Diffrences.

Roe (1952). The Making of Scientist.

Rothenberg, A. (1983). Psychopathology and Creative Cognitive: A comparison of hospitalized patients, Nobel Laureates and controls.

Rothenberg, A. (1989). Creativity and the Homospatial Process: Experimental Studies.

Runco, M.A. (1989). Parents` and Teachers` Rating of Creativity of Children. Journal of Social Behaviour and Personality.

Sternberg, R.J. (2002). Teaching Problem-solving as a Way of Life. In A.L. Costa (Ed.), Developing Minds: A resource book for teaching thinking, V A: Association for Supervision and Curriculum Development.

Stenberg R. J., Kaufman J.C. & Pretz, J. E. (2002). The Creativity Conudrum.

Susan Halliwell (1992). Teaching English in the Primary Classrooms.

Taylor, C.W. (1988). Approaches to and Definition of Creativity.

Torrance, E. P. (1974). Torrance Test of Creative Thinking: Norms Technical Manual.

Vygotsky, L.S. (2004). Imagination and Creativity in Childhood. Journal of Russian and East European Psychology.

Vernon (1975). Psychological Studies of Creativity.

Wendy A. Scottand and Lisbeth H. Ytreberg. Teaching English to Children.

APPENDIXES

Appendix (1)

Sudan University of Science and Technology

College of Graduate Studies

A test for young learners

Part(1): Personal information

Name (optional)……..

Gender: Male( ) Female ( )

Part (2):

A- Write a composition of about (10-12) lines about

A visit to foreign country

You can use the questions below:

1. Where did you go?
2. When did you go?
3. Where did you stay?
4. Who went with you?
5. What places did you visit?
6. Was it interesting?
7. Will you go there next time?

A visit to……..

Last year……. ……

……..

……

……

……

……

……

……

……

……

……

……

……

……

……

B- Write about your everyday activities

You can use the following to help you

1-Get up	2- take a bath	3- say prayers
4- drink tea	5- have breakfast	6- go to school
7- do some homework	8- go shopping	9- have a dinner
10- watch T.V	11- go to bed	

Everyday activities

Everyday I …….. …… ……

…….

……

……

……

……

……

……

……

……

……

…….

……

……

……

……

…….

Appendix (2)

SUDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF GRADUATE STUDIES AND SCIENTIFIC RESEARCH

COLLEGE OF LANGUAGES-ENGLISH DEPARTMENT

A QUESTIONNAIRE FOR SCHOOL TUTORS AT BRITISH EDUCATIONAL SCHOOLS

Dear teacher,

This questionnaire will gather data about the situation of classroom creativity as regards their effects on enhancing students' learning. The analyzed data will help form a better insight about the nature, causes and how the problem can be addressed.

To indicate the extent to which you agree with each statement, please tick box in each scale that best represent your choice where:

Strongly agree Agree Neutral Disagree Strongly Disagree

Part 1: Personal data:

1. Name: (optional) ……

2. Highest degree earned:

Bachelor's Degree ☐ Master's Degree ☐ PhD ☐

3. How many years have you been teaching English

1 year ☐ 2-5 years ☐ 6-10 years ☐ more than 10 year ☐

Part 2: General statements:

No.	Statements	Frequency and percentages				
		Strongly agree	Agree	Neutral	Strongly Disagree	Disagree
1	Most young Sudanese learners are weak in English and de-motivated.					
2	Learners are not encourage to use their creative imagination in both life and learning.					
3	There is no suitable and motivating environment for learners.					
4	The process of developing effective creative learning is like building a house					
5	Independent learning is one of the most important indicators that effective creative learning has taken place.					
6	Creativity should be part and parcel of any successful educational system or learning.					
7	Teachers are responsible to create places in which students learn to think, and places in which thinking can be joyful and creative.					
8	With experiences in creativity our students are able to prepare for the shape-shifting world they must embrace.					
9	A creative person always produces creative results.					
10	Each culture and discipline sets standards for creative activities that the concept of culture is strongly linked to creativity.					

11	Many kinds of personal characteristics may be important in the development of creative student most important of which is culture.					
12	There is a strong relationship between creativity and intelligence.					
13	The role of teachers in introducing creativity in classroom is great and critical.					
14	Motivation is a key factor in successful creative learning.					
15	Social interaction can be beneficial as it can help develop important social skills					