EFFECTS OF BRAINSTORMING AND THOUGHT-STOPPING COUNSELLING TECHNIQUES ON ACADEMIC TASK-AVOIDANCE AMONG SECONDARY SCHOOL STUDENTS IN MINNA METROPOLIS, NIGERIA

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DECLARATION

The researcher hereby declares that the work in this thesis entitled: Effects of Brainstorming and Thought-Stopping Counselling Techniques on Academic Task-Avoidance among Secondary School Students in Minna Metropolis, Nigeria was carried out by me in the Department of Educational Psychology and Counselling. The information derived from the literature has been duly acknowledged in the work and a list of references provided. No part of this thesis was previously presented for another degree in this or any other institution.

_____ _____

Toyin Abdulkadir JIBRIL Signature &Date
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CERTIFICATION

This Thesis entitled: Effects of Brainstorming and Thought-Stopping Counselling Techniques on Academic Task-Avoidance among Secondary School Students in Minna Metropolis, Nigeria by Toyin Abdulkadir JIBRIL meets the regulation governing the award of Ph.D in Educational Guidance and Counselling of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation

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DEDICATION

This thesis is dedicated to my late parents Alhaji Jibril Abdullahi Ndaman Okeode and Hajiya Mariamu Jibril for their contributions to my success which will remain indelible in my mind forever. May Allah (SWT) grant them Al-jannatul Firidausi (Ameen)

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ABBREVIATIONS

ATAS:	Academic Task Avoidance Scale
BSRC:	Behavioural Strategies Rating Scale
BCT:	Brainstorming Counselling Technique
CG:	Control Group
TSCT:	Thought-Stopping Counselling Technique

OPERATIONAL DEFINITION OF TERMS

Brainstorming: is a technique for generating ideas from team members for deliberations on a problem toexcite the braininto logical thinking about the problem in a new way in other to develop highly creative solutions to the problem.

Thought-Stopping:is a technique use toidentify and interrupt irrational or maladaptive thoughts through self-directive and self-help strategies in other to prevent the reoccurrence of negative thoughts.

Academic Task Avoidance: this refers to the behavioursof non-compliance, self-handicapping and escape-behaviour manifested by students toward theiracademic activities.

ABSTRACT

This study investigated the effects of brainstorming and thought stopping counselling techniques on academic task-avoidance among secondary school students in Minna metropolis, Nigeria. Five research questions were formulated with their correspondinghypotheses to guide the study. The hypotheses postulated were tested at 0.05 Alpha level of significance. Quasi-experimental design was adopted for the study using pre-test, post-test, control group design. A sample size of 48 participants was purposively selected from senior secondary school two students in Minna metropolis for the study. Samples were randomly assigned into treatments and control groups. Instrument of Behavioural Strategy Rating Scale by Aunola, Nurmi, Parrila and Onatsu-Arvilommi was adopted for the identification of the participants while Academic Task Avoidance Scale adapted from Rhodewalt (Self-Handicapping Scale) and Ottenbreit and Dobson (Cognitive and Behavioural Avoidance Scale) was administered at pre and post intervention phases to assess treatment outcome. Data collected were analyzed using both the descriptive and inferential statistical methods of mean, standard deviation, independent sampled t-test and Analysis of Covariance (ANCOVA). The finding revealed that: brainstorming counselling technique is effective in reducing academic task avoidance among secondary school students (p = 0.000); thought-stopping counselling technique is effective in reducing academic task avoidance among secondary school students (p = 0.024); brainstorming counselling technique is effective in reducing academic task avoidance of both male and female secondary school students (p = .200), significant difference did not exist between the genders; thought-stopping counselling technique is effective in reducing academic task avoidance of both male and female secondary school students (p = 0.024) significant difference does exist between the genders and comparing the two techniques, both are effective (p = .002), significant difference did not exist among the techniques. Based on the findings of the study, it was recommended among others that counsellors, school psychologists and class teachers should be encouraged to use brainstorming technique in managing academic task avoidance among students' secondary schools.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Students are described as task avoidant if they fail to or refuse to follow the instructions of an authority or conform to rules. These students may routinely fail to complete assigned homework, expected school responsibilities, and other expected activities. In the cases of failure, student may look polite and apologetic when the problem is called to his attention. The failure to embark on the task may have many possible explanations (the students may not understand the instructions; forgot or did not know the rule; was simply slow to start) and does not imply any specific intention or motivation on the part of the students. Alternatively, students may be resentful and openly defiant when confronted with his behaviour. In contrast, refusal to embark on the task suggests an oppositional intention on the part of the students which can be regarded as a behavioural problem. The students refuse to follow an instruction or request, or obey a rule intentionally. That is, it is assumed that the act of refusal is conscious and willfully carried out.

According to Ashley (2015) the links between task avoidance and academic achievement are well established by studies. Academic task avoidance is a prominent contributor to declines in academic achievement, whereas task engagement is an important prerequisite of academic achievement. Studies with elementary school students (Hughes, Luo, Kwok & Loyd, 2008), high school students and college students (Nurmi, Aunola, Salmela-Aro & Lindroos, 2003) all indicate that task avoidance is associated with academic achievement, such that task avoidance predicts lower achievement and lower achievement predicts continued task avoidance. School students who exhibited low task engagement

performed worse in school over time, and students who perform poorly in school became less engaged, overall and in terms of reading achievement (Onatsu-Arvilommi & Nurmi, 2000).

Some students purposefully withdraw efforts, resist novel approaches to learning, and avoid tasks. Task avoidance is an act of refraining or escaping from an action. Task avoidance can be an intentional behaviour which can be repeated, and therefore, has the potential of developing into a habit over time. Students often display academic task avoidance in the classroom as a manifestation of various fears about their ability to cope in unknown social or academic situations. Since avoidance behaviour typically removes a person from unpleasant circumstances, the avoidance response is believed to be strengthened via mechanisms of negative reinforcement. Academic task avoidance is associated with maladaptive strategies, such as self- handicapping, learning helplessness, procrastination and defensive pessimism (Martin, Marsh & Debus, 2001). Students may have the intention to perform an academic activity within the desired or expected time frame, yet failing to motivate themselves to do so (Ferrari, 1998). A large percentage of students suffer from academic task avoidance and the negative consequences related to this dilatory behaviour. Academic task avoidance is associated with poor academic performance (Beswick, Rothblum, & Mann, 2000), depression and dejection (Lay, 2000), lack of punctuality, difficulties in following directions and an increase in health problems as the semester deadlines approach (Rothblum & Solomon, 2001). In addition, numerous studies draw attention to the circumstances under which students are likely to be academic task avoidant. For instance, when asked to report why they task avoidant, college students offered reasons related to task aversiveness and fear of failure (Solomon & Rothblum,

2001). Moreover, research showed that academic task avoidance could stem from less effort on the task (Sadler & Buley, 2003), low self-efficacy (Haycock, McCarthy & Skay, 2000), low task capability, high level of performance anxiety and non-self-determined academic motivation are associated to academic task avoidance (Sene´cal, Koestner & Vallerand, 2001). Academic task avoidance may be affected by personality characteristics such as trait of academic task avoidance, socially prescribed perfectionism, concern for a favourable public impression and low levels of conscientiousness (Lay, 2000).

Academic task avoidance among students is fundamentally important in intellectual thoughts and these behaviours vary. They include both physical and mental activities which students utilize to distract themselves to avoid primary academic task. There are inconsistent in their behaviour and performance in avoiding specific tasks. Having developed avoidance strategies, students may forego their efforts to succeed in protecting their public image of incompetence. Academic task avoidance may also include purposely withdrawing effort, of avoiding new task that seem difficult or challenging. Some examples of academic task avoidance strategies among students as stated by Julianne, Debra, Evic, Carol, Margaret, and Yongjin, (2002) include: Chatting with friends instead of working; scratching or messaging them as a means of escaping from real task; looking up at the ceiling, looking outside the window or day dreaming when seated on the desk; claiming to be too busy and does not have the time when they really do have the time; browsing the internet or checking their e-mails when they should be listening to lecture and downplaying the importance of task so that they feel less guilty for not doing it. Purposefully withdrawing efforts or self-handicapping by students is a manifestation of academic task avoidance.

Students generally engaged in academic task avoidance behaviour in order to protect self–worth, which may be threatened by poor academic performance at a new or most challenging task. When students have an irrational fear of academic situations their normal reaction are just to avoid tasks. Avoidance quickly reduces their anxiety, so the next time they encounter an anxiety producing situation (academic task) their first reaction is to avoid it. This research study is targeted at using brainstorming and thought-stopping counselling techniques on reduction of academic task avoidance of students.

Brainstorming technique is a strategy used to generate a number of ideas to help solve a particular problem. Brainstorming is a cooperative approach in which a number of people collectively agree upon a solution after all of their ideas are brought forth and discussed. It stressed that all ideas are welcome and even ideas which are perceived as funny or silly can lead to creative solutions. It provides students with the problem/topic that is new to them and one that challenges their current level of knowledge on the issue. Brainstorming techniques vary but there is a general structure to follow when developing brainstorming sessions. After the problem or issue is presented, students are organized into groups to brainstorm all possible ideas which could solve the problem. Discussion of these ideas takes place after the brainstorming session ends, usually after a defined period of time. Each idea will be discussed and considered, some ideas will be eliminated, and a final list will be ranked for possible use as a solution toward solving the problem.

Experimental studies have shown the efficacy of brainstorming counselling therapy in reducing psychological distress that follows a significant loss (Wittouck, Van Autreve, De Jaegere, Portzky, & Van Heeringen 2011) post grief disorder (Shear. Frank. Houck & Reynolds 2005), grief symptoms of death of loved ones, challenge maladaptive grief-related

thoughts. Self-blame, reduction of confusion about self-identity/ life role, difficulty in accepting the loss, difficulty in moving forward in life and reduction in anger related to the loss (Doughty, Wissel & Glorfield, 2011). This study intends to use brainstorming counselling to determine the effectiveness of the technique on academic task avoidance of students.

Thought-stopping is a self-instructional procedure aimed at nipping the persistent or obsessive thoughts that causes anxiety. In thought-stopping training session, the clients are given thoughts to concentrate on and after several seconds, the modifier asks to stop. This practice is repeated over and over. Then the clients will go ahead to practice same on those anxiety-evoking thoughts. When the technique is eventually internalized, the clients can then try it out when the occasion for it calls. Thought-stopping is a cognitive therapy which is used to deal with irrational thoughts that make it difficult for a person to concentrate on anything else. Thought-stopping counselling technique is a way of helping client to control obsessive intrusive idea. Thought-stopping helps a client control unproductive or self-defeating thoughts and image by suppressing or eliminating them. This procedure is appropriate for clients who ruminate about past events that cannot be changed or engage in repetitive and unproductive thinking and anxiety producing fantasies.Thought-stopping technique has been used in various studies to overcoming anger and irritability (Davies, 2000), fear (Susan, 2007), anxiety (Kennelly, 2009; & Williams, 2003), social anxiety, shyness andworry (Robert, 2006),low self-esteemand depression (Paul, 2007). It was used by other researchers to overcoming obsessive compulsive disorder (David, 2009), coping with phobias (Brenda, 2007), overcoming chronic pain (Frances, 2005) and traumatic

stress(Claudia, 2008). The two techniques will be used in this research to determine their effectiveness on academic task avoidance among students.

1.2 Statement of the Problem

In Nigeria, over the past years, there has been considerable attempt on taking steps to ensure that secondary schools are positive and safe environment for learning. Although, the emphasis in this development has been to implement evidence-based, constructive and practical practices, there is need for constructive procedures in managing behavioural problems when it arises. It is clear, that there are other problem behaviours manifesting from secondary schools students; that of students' academic task avoidance is highly prevalent and of serious concern to educators. Academic task avoidance is a counter-productive behaviour which can be recognized in all spheres of life including education, business and household. It is obvious that if students are academic task avoidant, the teachers' ability to teach and the students' ability to learn will be seriously restricted. Academic task avoidance such as students' refusal to follow instructions, display of direct defiance of overt resistance and student actual acknowledgement of instructions directives but indicate via words or gestures that he/she does not intend to comply can cause serious disruption to the teaching-learning process.

Academic task avoidance causes a substantial loss in instructional time and subsequently reduces students' learning attainments. It also causes disruption which can bring about negative effects throughout the students' lives in the school, at home, and in the community. It is logical to assume that most students who display academic task avoidance on regular basis will have problem in succeeding in their academic programme. The reason is obvious that when teachers provide learning instruction, they require tasks from their

students that involve following directions to manifest the expectations. Students who do not follow these directions will have difficulty completing the academic tasks set by the teacher, which will in turn affect their academic achievements. Academic task avoidance is associated with poor academic performance, depression, dejection, lack of punctuality, difficulties in following directions, and an increase in health problems as the semester deadlines approach. Academic task avoidant students have reasons related to task evasiveness: fear of failure, task demand, low self-efficacy, low task capability, level of performance anxiety and non-self-determined academic motivation as justifications for their avoidance behaviour toward academic tasks.

It is imperative for educators and counsellors to take urgent measure to understand the nature of students' academic task avoidance in order to adopt more effective steps to change this very challenging and disturbing behaviour. It is in view of the persistent occurrence of academic task avoidance among students and the negative outcomes experienced by Nigerian students that the researcher deemed it necessary to carry out this study with a view to exploring the effectiveness of brainstorming and thought-stopping counselling techniques on academic task avoidance in Minna metropolis, Niger State, Nigeriain order to make the students useful to themselves and the society.

1.3 Objectives of the Study

The following objectives were formulated to guide this study to:-

1. Determine the effects of brainstorming counselling technique on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.

2. Determine the effects of thought-stopping counselling technique on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.
3. Examine the differential effects of brainstorming counselling technique on academic task-avoidance between male and female students of secondary school in Minna metropolis, Nigeria.
4. Examine the differential effects of thought-stopping counselling technique on academic task-avoidance between male and female students of secondary school in Minna metropolis, Nigeria.
5. Compare the differential effects of brainstorming and thought-stopping counselling techniques on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.

1.4 Research Questions

This research seeks to answer the following research questions:-

1. What is the effects of brainstorming counselling technique on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria?
2. What is the effects of thought-stopping counselling technique on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria?
3. What is the differential effects of brainstorming counselling technique on academic task-avoidance between male and female students of secondary school in Minna metropolis, Nigeria?
4. What is the differential effects of thought-stopping counselling technique on academic task-avoidance between male and female students of secondary school in Minna metropolis, Nigeria?

5. What is the differential effects of brainstorming and thought-stopping counselling techniques on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria?

1.5 ResearchHypotheses

The following hypotheses have been formulated to guide the study:-

HO1: There is no significant effects of brainstorming counselling technique on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.

HO2: There is no significant effects of thought-stopping counselling technique on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.

HO3: There is no significant differential effects of brainstorming counselling technique on academic task-avoidance between male and female students of secondary school in Minna metropolis, Nigeria.

HO4: There is no significant differential effects of thought-stopping counselling technique on academic task-avoidance between male and female students of secondary school in Minna metropolis, Nigeria.

HO5: There is no significant differential effects of brainstorming and thought-stopping counselling techniques on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.

1.6 Basic Assumptions of the study

The study is based on the following assumptions:-

1. It is assumed that brainstorming counselling techniques would have effects on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.

2. It is assumed that thought-stopping counselling techniques would have effects on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.
3. It is assumed that brainstorming counselling technique would have differential effects on academic task-avoidance between male and female students of secondary school in Minna metropolis, Nigeria.
4. It is assumed that thought-stopping counselling technique would have differential effects on academic task-avoidance between male and female students of secondary school in Minna metropolis, Nigeria.
5. It is assumed that brainstorming and thought-stopping counselling techniques would have differential effects on academic task-avoidance among students of secondary school in Minna metropolis, Nigeria.

1.7 Significance of the Study

Students' academic task avoidance behaviour is of concern to every educationist at all levels. The stakeholders, parents, students, teachers' counsellors, psychologist and other concerned individuals are always worried on the psychological distress of the behaviour. It is expected that the findings of this research would be useful to knowledge theory building counsellors, psychologists, students, teachers', parents, curriculum planners and researchers. Brainstorming and thought-stopping techniques based on empirical studies have been used for reduction and solving various psychological maladaptive disorders but not specifically academic task avoidance of students.

The findings of the study will add to knowledge especially to the theory building on behaviour modification techniques with regards to brainstorming and thought-stopping

counselling techniques. The treatment packages of brainstorming and thought-stopping counselling techniques used in this research will be of great relevance for psychotherapy and counselling interventions for counsellors and psychologists as intervention for academic task avoidance of students at individual or group basis.

It is also hoped that the findings of this study will be very significant to the counselling profession because it will further highlight the important role of counsellors in reducing and controlling the negative effects of academic task avoidance behaviour, taking into considerations the different nature of students' manifestation of the behaviour.

Similarly, it is hoped that the findings of the study willstimulate and improve students' skills to appreciate the importance of full participation in the school academic activities without avoiding them in order to achieve their educational needs/objectives and as well be free from the psychological distress associated with academic task avoidance. Besides, academic task avoidant treatment procedures the students learnt would assist them on managing the frequency of their indulgent in academic task avoidance.

The findings of this study are intended to enhance students' academic task avoidance reduction in the classroom. The application of counselling techniques such as brainstorming and thought-stopping adopted in this study wound be useful for class teachers in minimizing the effects behaviour which threatens the general objectives of academic performance. The findings could enable teachers gain an insight into teaching/learning strategies when they read about the treatment packages used in this study, thereby facilitating an effective classroom management instead of physical punishment.

The findings would help parents build skills to prevent academic task avoidance among their children/wards, so that the students can be useful to themselves and to the

society. Similarly, school administrators will gain more knowledge and understanding about the ills of academic task avoidance. They may use the findings of this study to come up with programmes that will help minimize students' academic task avoidance in their schools so that students may be helped to develop interest in learning and other school activities.

Furthermore, the findings of the study will sensitize curriculum planners to develop curriculum materials that will promote and emphases the development of students learning strategies that will assist learners to appreciate and respect the dignity of academic schedules focus.

1.8 Scope and Delimitations of the Study

The scope of the study was all students in senior secondary two in Minna metropolis, Nigeria who exhibited academic task avoidance behaviour. The study was delimited to examining the effects of brainstorming and thought-stopping counselling techniques on academic task-avoidance among students in secondary school two in Minna metropolis, Nigeria. The delimitation was because of the prevalence of academic task avoidance of students at this level despite their five years in the secondary school and to also examine whether brainstorming and thought-stopping counselling techniques can be effective on managing academic task avoidance among students.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

In this chapter, the reviews of related literatures are discussed under these broad headings: Conceptual framework, Theoretical framework and Review of related empirical studies.

2.2 Conceptual Framework

The flow chart of key variables in figure 2:1 shows various Academic Task Avoidance behaviours and the modification techniques used to reduce their manifestation.

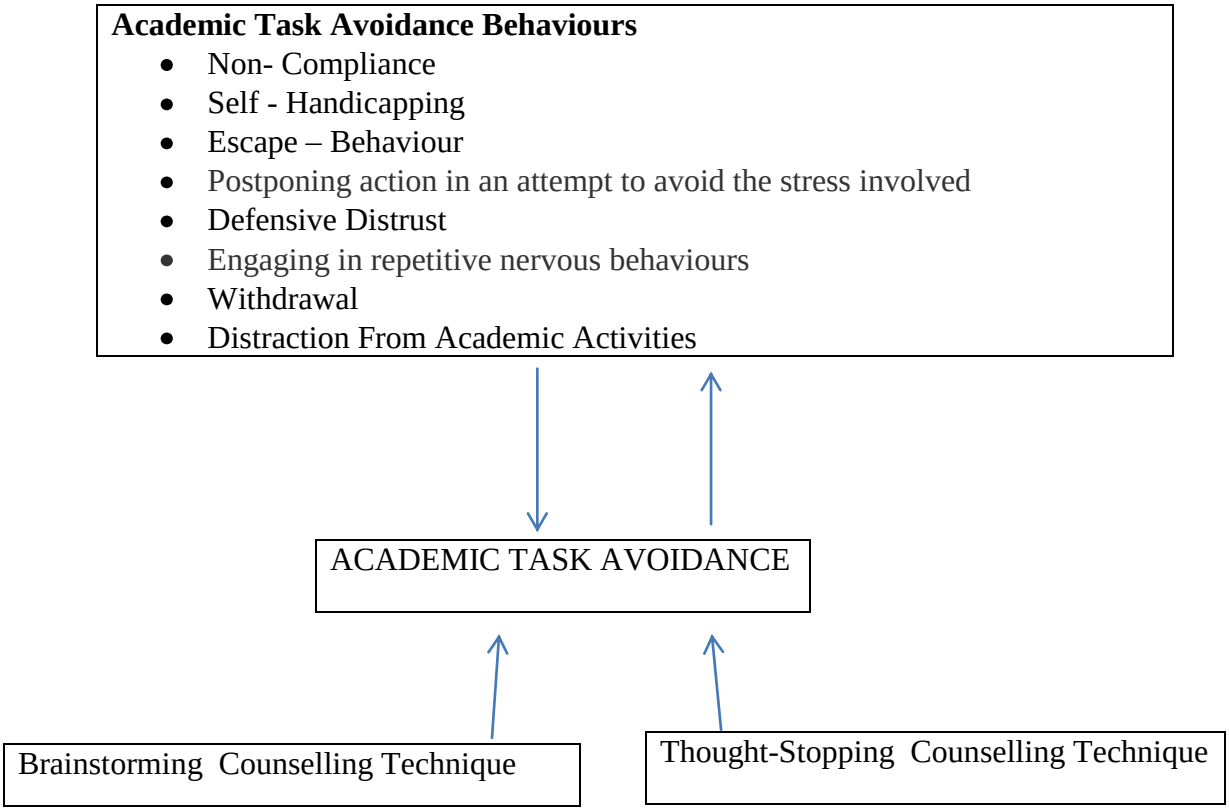


Figure 2:1 Conceptual Framework Chart

Source: Researcher's Concept

2.2.1 Concept of Brainstorming

The term brainstorming is derived from, and juxtaposed in the dictionary with, "brainstorm" which is defined as a "fit of insanity". The Longmans Dictionary goes on to define brainstorming as a problem solving technique that involves the spontaneous distribution of ideas from all members of a group. It is now very popular and often used as a verb, as in "to brainstorm a problem". According to Helmut (2013), a popular myth is that the meaning of brainstorming is somehow related to generating a storm of ideas in a brain. While making sense, the creator had something slightly different in mind when he came up with the term. The word brainstorming was coined by Alex Faickney Osborn (1888-1966) in his book "Your Creative Power", published in 1948. **"**Brainstorm" means using the brain to storm a creative problem and does so in commando fashion, with each stormier attacking the same objective.

The original approach to the brainstorming was developed by Madison Avenue advertising executive, Osborn in the 1950s, since then many researchers have explored the techniques and have identify issues. Osborn was frustrated by the employees' inability to develop creative ideals individually for campaigns. In response, he began hosting group-thinking sessions and discovered a significant improvement in the quality and quantity of ideals produced by employees. In his widely read book, Osborn (1957), contended that more ideas can be produced by a group than by the corresponding number of separately working individuals, provided that the group follows the principles of 'brainstorming': (a) Criticism is ruled out (adverse judgment must be withheld until later'); (b) freewheeling is welcome ('the wilder the idea the better'); (c) quantity is wanted; (d) combination and improvement

are sought. If these rules are followed, the claim was, the average person can think up twice as many ideas when working with a group than when working alone.

According to VNR (1980) dictionary of business and finance defined brainstorming as a technique aimed at stimulating the generation of as many solutions to a problem as possible; consist of a meeting, usually lasting no more than an hour, chaired by a strong moderator, who stimulates idea and encourages building upon and modification of ideas expressed. The technique has been successfully used in such areas as advertising and product development.Johannsen (1995) defined brainstorming as a bombardment of ideas between small groups of people uninhibitedly suggesting solutions, whether outlandish or well-informed, to various problems. Good therapy for participants can produce the occasional breakthrough of ideas that might otherwise never be touched on. Brainstorming may be used to help solve a wide range of management problems or for longer term purposes such as technological forecasting. Scot (1998) observed that the word "brainstorming" has taken on a variety of popular meanings. For some it means simply to get together and have a casual discussion in order to come up with few ideas. Some believe that the term brainstorming is a universal treatment (the only way to be creative) or synonymous with the entire creative problem solving process. For others it was used as a derogatory term implying a waste of time.

Halka (2001) defined brainstorming technique as a method used in groups in order to support creative problem-solving and generation of new ideas for greater acceptance of proposed solutions. Brainstorming is a popular method of encouraging creative thinking. Its main advantage is deferred judgment, by which all ideas-even unusual and impractical ones-are encouraged without criticism or evaluation. Ideas are recorded as fast as they can be

suggested; then they are evaluated for usefulness at a later time. The purpose of deferred judgment is to encourage people to propose bold, unique ideas without worrying about what others think of them; this approach typically produces more ideas than the conventional approach of thinking and judging concurrently. Brainstorming sessions last from ten minutes to one hour and require no preparation other than general knowledge of the subject. Other advantages of brainstorming are enthusiasm, broader participations, great task orientation building upon ideas exchanged, and the feeling that the final product is a team's solution.

Ozmen (2006) defined brainstorming as a creativity technique of generating ideas to solve a problem. The main result of a brainstorm session may be a complete solution to the problem, a list of ideas for an approach to a subsequent solution, or a list of ideas resulting in a plan to find a solution. Manktelow (2006) defined brainstorming as a useful and popular tool that one can use to develop highly creative solutions to a problem. It is particularly useful when one need to break out of stale established patterns of thinking, so that one can develop new ways of looking at things. This can be when one needs to develop new opportunities, where one wants to improve the service that one offer, or when existing approaches are not giving one the results one wanted.

Rao (2007) defined brainstorming as a technique that encourages expression of all ideas, no matter how seemingly offbeat, and completely bars criticism of any ideas expressed; but it is something misused, as when the moderator is ineffectual, the techniques is misunderstood, criticism is allowed to develop, or the meeting wanders away from the specific problem addressed.Building Dynamic Groups (2009) defined brainstorming as an excellent technique for generating ideas from team members about problems and opportunities for improvement. It allows everyone to participate and is a good method for

"breaking the ice". This group process can be productive because group members can use their collective thinking power to create and build on the ideas.According to Aytac (2012) brainstorming means using the *brain*to*storm* a creative solution for a problem. Brainstorming is a method of generating ideas and solving problems, therefore there is a strong connection between brainstorming, productivity and domain learning. Brainstorming is a group activity in which all the members of a group suggest ideas and then discuss them as a brainstorming session. Brainstorming is an approach to active learning that allows learners to participate in learning activities, to take the responsibility for their own learning, and to establish connections between ideas by analyzing, synthesizing, and evaluating.

According to Mangal (2013) brainstorming is a strategy or technique for allowing a group to explore idea without judgment or censure. In practice, the students may be asked to sit in a group for solving a problem and attacking it without any inhibition from many angles: in fact, literally storming it with a number of possible ideas and solutions. To start with, the students may be provided with a focus. A particular problem like 'academic task avoidance', the students are then asked to suggest ideas as rapidly as possible and the following norms are observed: all ideas are encouraged and appreciated, no criticism is allowed during the brainstorming session. Students are encouraged to come out with as many ideas as possible, even unusual and unorthodox ones. The participants are not restricted to new ideas only but also encouraged to enlarge upon ideas put forward by fellow students. No evaluation or comment of any sort is to be made until the session is over. At the end of the session, all the ideas received (preferably written on the blackboard) should be discussed in a free, frank and open environment and the most viable ideas accepted for solution of the problem.

UNICEF (2015)defined brainstorming as a quick and easy way to generate novel ideas for problem solving and innovation. As the name suggests, brainstorming is meant to stimulate or excite the brain into thinking about issues in a new way. It encourages people to arrest conventional, logical thinking and embrace spontaneity, originality and imagination. Based on the above definitions brainstorming is a technique, generally used in a group setting, to quickly generate a large number of ideas about a specific problem or topic. It helps encourage creative thinking and generate enthusiasm, encourage participation and building on the ideas of others and, avoid the paralysis of analysis by not evaluating ideas. The important point about brainstorming is that there should be no pressure to be brilliant. Students should simply open their minds to whatever pops into them. Think of it as a kind of free association. Brainstorming is a technique used to generate ideas. Brainstorming involves everyone, permits new and unusual ideas to surface, produces many choices, encourages synergy and discourages negative input. All team members contribute ideas and a recorder captures each idea as suggested. On a whole, brainstorming is a technique for generating ideas from team members about problems and opportunities for improvement. This group process can be productive because group members can use their collective thinking power to create and build on the ideas. When using brainstorming as a technique for generating ideas for solution to academic task avoidance, it is important to focus on the improvements. When the brainstorming session on types of academic task avoidance are completed, the group then reach consensus by identifying the top two or three ideas that will help them reach the improvement goal. This may be accomplished by removing obstacles or spending additional time in problem solving.

2.3 Concept of Thought- Stopping

Thought stopping (a procedure suggested by Bain in 1928 and popularized by Wolpe, 1958) is a simple and effective technique of disrupting unwanted thoughts. It is used to disrupt irrational perhaps obsessive thought(s) in a behaviour chain leading to fear. Ever since Wolpe (1958) first published descriptions of thought-stopping techniques, clinicians have been applying these types of interventions. There has been a plethora of case studies published over the years claiming reductions in anxiety symptoms with both adults and children (Jerry, 2008). Thought-stopping according to the dictionary of psychology (2012) is the skill of utilizing a physical or mental cue to cease negative thoughts and redirect them to an unbiased or positive orientation. This skill is taught in some behaviour therapies, whenever the therapy professional yells "Stop!" to disrupt a pattern toward unfavourable thoughts and trains patients to employ this method themselves (Psychology dictionary, 2012). Thought-stopping is a cognitive therapy which is used to deal with irrational thoughts that make it difficult for a person to concentrate on anything else. Thought-stopping helps a client control unproductive or self-defeating thoughts and image by suppressing or eliminating them. This procedure is appropriate for clients who ruminate about past events that cannot be changed or engage in repetitive and unproductive thinking and anxiety producing fantasies. White (1980) define thought-stopping as process by which the client concentrates on the ruminative and anxiety producing images for the thought sequence, which makes it impossible to continue it. The procedure is repeated until the association between the stop cue and the obsessive thought is strengthened, and until the client takes over the function of intervening with his or her own sub vocal “stop” at any point of becoming aware of the obsessional sequence.

Pareteau and Lamontagne (1981) defined thought-stopping as an effective for cognitive behaviour therapy, especially during the period when the patient must learn to break bad habits. McKay, Davis and Fanning (1997) defined thought-stopping as the use of a mental or behavioural cue to prevent the occurrence of, or cease, recurring of negative thoughts. Saunders (2003) defined thought-stopping as a method of overcoming obsessive phobia or otherwise distressing thoughts by first concentrating on them and after a short time stopping or interrupting them. Leahy (2010) defined thought stopping as a controversial cognitive intervention technique prescribed by (psychologists and psychiatrists) with the goal of interrupting and removing problematic recurring thought patterns. The problem thought could be a worry, an obsession, an urge or unwanted habit. Churchill, (2008) defined thought-stopping as a technique of cognitive behaviour therapy in which individuals are trained to stop intrusive negative thoughts when they occur, either by the self-administration of a painful stimulus; such as snapping an elastic band worn around the wrist, or by bringing to mind a vivid mental image such as a stop sign.Adeniyi (2014) defined thought-stopping as a simple, but effective tool for getting rid of those unwanted and unnecessary thoughts through the development of mental discipline needed to consciously take control over an unwanted, unconscious behaviour. Ankron (2014) defined thought-stopping as an effective and quick technique to help individual with the intrusive negative thoughts and worry that often accompany panic disorder, anxiety and agoraphobic.

All these definitions emphasize that thought-stopping is a technique used to interrupt rumination about maladaptive behaviour, academic task avoidance inclusive by changing or introducing novel stimuli into the clients' life in order to alter or reduce the cues for the unwanted behaviour. Motivation is maintained by means of rehearsing reasons for quitting

the undesirable behaviour. Thought stopping helps the clients to control obsessive unpleasant ideas. The method can be summarized thus:

1. The clients identify negative thoughts that lead then to academic task avoidance.
2. Tells himself/herself to stop them, and
3. Focus their mind on the rewarding imaginary or tasks accomplished.

Thought stopping is a cognitive-behavioural treatment that focuses on the clients' faulty internal dialogue. In the highly self–critical individual, the internal dialogue is self-defeating and negative rather than task-oriented and positive. The individuals' negative self-statements create anxiety and low self-esteem and lead to avoidance

2.4 Concept of Task-Avoidance

Avoidance behaviour can usually be traced back to a child's adaptive response to avoid anxiety caused by his or her environment. Such responses may eventually become automatic responses, which are often self-defeating and worsen the frightened situation. Karen (2014) stated that task avoidance behaviours are symptoms of some kind of fear and anxiety in the students. This can include fear of looking foolish, the fear of success, the fear of failure and the fear of a perceived physical or mental pain. Karen (2014) further stated that students avoid what they fear, their fear grows. Avoidance behaviour is used by the students to reduce their fear, but it actually causes them to intensify their avoidance behaviour and thereby compounding their problem even worse. According to Nina (2004) any kind of avoidance behaviour activates fear, which intensifies anxiety, and causes focus on that dreaded conversation even more. This in turn gets the students into a cycle of obsessive worry. Worry and the associated anticipation of danger cause them to experience fear with unnecessary anxiety. Students display avoidance behaviour within the classroom

as a manifestation of various fears about their ability to cope in academic situations. Their actions may include defiance, withdrawal and diversionary tactics. There are others who are fearful of been criticized or negatively judged by others or himself. Popoola (2005) defined task avoidance as a dispositional trait which has cognitive, behavioural and emotional components. Noran (2000) defines the term task avoidance as avoiding doing a task which needs to be accomplished.

Sloan (2007) admitted that student who habitually avoids task develops fears that authority figures will negatively evaluate his/her performance so he/she avoids the task so as to avoid the criticism. Students, most especially the teenagers need attention, especially when confronted with insurmountable problems that can be detrimental to their learning situation. In this instance, helping the student to feel more comfortable with attempting the work, emphasizing that efforts as well as achievement is important, and generally reassuring him is far more likely to lead to an improvement in the behaviour than a purely sanction based approach by the school administrators

According to Egbule (2009) students engage in behaviours that are markedly inconsistent day to day and possibly hour to hour which distract them from learning the appropriate concepts they are programmed to learn. This also has the tendency of increasing the negative emotion that they are trying to avoid, which, for some student, can make the situation worse or end up never starting their task. Some students prefer to avoid novel ways of solving problems and doing their work, fearing that they may make mistakes and appear unable. By exhibiting task avoidance, the student may be able to stave off the negative judgments by order of low ability and the causes of failure become uncertain. If not

addressed academic task avoidance behaviour can be detrimental to the student's long term educational progress and can lead to depression and other behaviour problems.

Karen (2014) identified the followings as types of academic task avoidance: distraction, escape behaviour, procrastination and safety behaviour: distraction involves busying yourself and your mind with activities or thoughts to avoid confronting a problem - making phone calls, eating, shopping, and face booking - basically twittering away ones' time;escape behaviour consists of contriving a way to physically avoid an anxiety-provoking situation, such as faking an illness; procrastination means postponing action in an attempt to avoid the stress involved with taking that action (I'll do it tomorrow) and safety Behaviour includes self-soothing actions such as fidgeting, biting your nails, twirling your hair, or engaging in other repetitive nervous habits (or behaviours.) While safety behaviour allows a person to stay physically present rather than escaping, the behaviour often turns into a nervous habit preventing adequate focus to confront the situation. From another perspective Seifert (2004) suggested that there are four distinct types of task avoidant students: failure-avoidant, learned helpless, passive-aggressive, and see no reason. Students may belong in several different categories. Hirvonen, Tolvannan, Aunola and Nurmi (2012) in their work used the concept of task-focused vs task avoidance behaviour to refer to student's functional and dysfunctional pattern of behaviour in the classroom. A variety of other conceptualization has been used in the past to describe students' achievement-related beliefs, behaviours and orientations. Adaptive behavioural pattern parallel to task- focused behaviour are mastery orientations, task involvement and task-involved orientation. In contrast, task-avoidance behaviour can be associated with maladaptive strategies, such as self-handicapping, learned helplessness and defensive distrust.

2.5 Theoretical Framework for the Study

There are divergent views from the reviewed literatures on the concept of academic task avoidance that it's both behavioural and cognitive manifested by the students: that students' academic task avoidance is determined by how they perceive and structure their experience in the school; that students' academic task avoidance behaviour could be learnt based on their contact with the school and its environment andthat past experiences are connected to self-perception of students which alter their attitude, emotions and ability to deal with academic task challenges. Six major theoretical frameworks guided this study in changing the way students think (cognitive) and how they responds to thoughts (academic task avoidance behaviour). These are: Person-centred theory of Carl Rogers, Theory of Intellectual development by Jean Piaget, Rational emotive behaviour theory (REBT) of Albert Ellis, Cognitive theory of Aaron Beck, Classical conditioning theory of Ivan P. Pavlov and Operant conditioning theory of Skinner.

2.5.1 Person-Centred Therapy by Carl Rogers

The Pearson-centred theory propounded by Carl Rogers, is based on the concepts of humanistic psychology. The basic assumptions is that people are essentially trustworthy and have a great potential for understanding themselves and resolving their own problems without direct intervention of the therapists. People are capable of self-directed growth if they are involved in a therapeutic relationship. Overall, person-centred therapy is a non-directive therapy that focuses on the client's ability to make changes in his or her life and that clients cans strive for their self-actualisation to over-come academic task avoidance. Seligman (2006) the approach views people as capable and autonomous, with the ability to resolve their difficulties, realize their potential, and change their lives in positive ways. Carl

Rogers (a major contributor of the client-centred approach) emphasized the humanistic perspective as well as ensuring therapeutic relationships with clients to promote self-esteem, authenticity and actualisation in their life, and help them to use their strengths (Seligman, 2006). The person-centred approach was originally focused on the client being in charge of the therapy which led to the client developing a greater understanding of self, self-exploration, and improved self-concepts. The focus then shifted to the client's frame of reference and the core conditions required for successful therapy such as ensuring the therapist demonstrates empathic understanding in a non-judgemental way. Currently, the person-centred approach focuses on the client being able to develop a greater understanding of self in an environment which allows the client to resolve his or her own problems without direct intervention by the therapist. The therapist should keep a questioning stance which is open to change as well as demonstrating courage to face the unknown. Rogers also emphasized the attitudes and personal characteristics of the therapist and the quality of the client-therapist relationship as being the determinants for a successful therapeutic process (Corey, 2005).

Person-centred therapists believe that clients are capable and trustworthy and they focus on clients' ability to make changes for themselves on their task avoidant behaviour. People have the tendency to work towards self-actualisation. Self-actualisation refers to developing in a complete way of avoiding task. Conditions of worth influence the way in which a person's self-concept is shaped from important people in his or her life. Conditions of worth refer to judgmental and critical messages from important people that influence the way the individual acts and reacts to certain situations. When an individual has conditions of worth imposed on him or her, self-image is often low. Also, if the individual is exposed to

over protective or dominating environments, this can also have a negative impact on self-image (Seligman, 2006). The fully functioning person is an individual who has ideal emotional health (Seligman, 2006). Generally, the fully functioning person will be open to experience, lives with a sense of meaning and purpose, and trusts in self and others. One of the main goals of person-centred therapy is to work towards becoming fully functioning. Phenomenological perspective, the phenomenological approach refers to the unique perception by each individual of his or her own world. The individual experiences and perceives own world and reacts in an individual way. Person-centred therapy focuses on the individual's own experience informing how treatment will work. There are a number of general ideas about personality development with regard to person centred therapy. Basically, person-centred therapy states that personality can be fully actualised when the individual is exposed to unconditional positive regard. An individual who has been exposed to conditional positive regard can have low self-esteem and low feelings of worth. An individual who is self-actualised will be more open to experience and less defensive, will learn to live in the moment, will trust own decision-making skills, will have more life choices and be more creative. The goals of person-centred therapy according to Seligman (2006) are to:

1. Facilitate client's trust and ability to be in the present moment. This allows the client to be honest in the process without feeling judged by the therapist;
2. Promote client's self-awareness and self-esteem;
3. Empower the client to change;
4. Encourage congruence in the client's behaviour and feelings;
5. Help people to gain the ability to manage their lives and become self-actualised.

The techniques employed in person-centred therapy are different from those employed in other therapies. The difference is that other therapies are often focused on something the client can do during the therapy session, whereas the techniques used in person-centred therapy are employed by the therapist to create an environment that facilitates the process of self-awareness. The following techniques will be discussed in relation to the person-centred approach: congruence, unconditional positive regard and acceptance, empathy, and reflection of feelings. The person-centred approach utilises non-directiveness as a technique by its therapists. Non-directiveness refers to allowing clients to be the focus of the therapy session without the therapist giving advice or implementing strategies or activities. Other techniques that person-centred therapists use in the therapeutic process include reflection of feelings, open questions, paraphrasing and encouragers. The person-centred approach can be applied to working with individuals, groups and families (Corey, 2005). Thus this makes the theory applicable to brainstorming counselling technique. The person-centred approach has been successful in treating problems including anxiety disorders, alcoholism, psychosomatic problems, agoraphobia, interpersonal difficulties, depression, and personality disorders (Bozrath, Zimring & Tausch, as cited in Corey, 2005). It could also be used in counselling people with self-handicapping and avoidance behaviour.

According to Carl Rogers, a therapist has to get to the core of an individual through trustworthy and positive interaction such as in brainstorming. He maintains that people are trustworthy, resourceful and capable of self-understanding and self-direction, able to make constructive changes and to live happy and productive lives. Therapists must experience and communicate the people's caring and judgmental realities and understanding, such that

significant changes in the clients may occur. Carl Rogers went on maintaining that, for an individual (client) to move forward and become what the individual is capable of, there are three therapist attributes which create a growth promoting climate such as in brainstorming. The attributes include: Congruence (Genuiness or realness), unconditional positive regard (acceptance and caring) and accurate empathic understanding (ability to deeply grasp the subject world of another person). The individual has an inherent capability to move away from maladjustment of academic task avoidance toward psychological health, the therapist, places the primary responsibility on the client. However, therapy is rooted in the client's capacity for awareness and self-directed change in attitudes and behavior. Generally, Pearson-centered theory focuses on the constructive side of human nature influencing it such that the clients can change and live happy and fruitful lives. Pearson-centered theory allows conditions necessary for creating a psychological climate in which the client will experience the freedom necessary to initiate constructive personality change. These include: two persons are psychologically in contact, Client experiences incongruence, therapist adjusts for congruence or integrated in relationship with the client, The therapist experiences unconditional positive regard or real caring and acceptance of the client, The therapist experiences an empathic understanding of the client's internal frame of reference and endeavors to communicate this experience, communication to the client, of the therapist's empathic understanding and unconditional positive regard is minimal.

2.5.2 Theory of Intellectual Development by Jean Piaget

Jean Piaget, a Swiss biologist developed a keen interest in child and cognitive psychology. In 1920, he associated himself with the Binet testing laboratory in Paris which was engaged in the task of developing intelligence tests to be used in the French school

system. His biological orientation made him define and understand intelligence in quite a different way and study the process of intellectual development in terms of maturation by stages. He opposed Binet's idea of defining intelligence in terms of the number of correct responses to the items contained in a particular intelligence test. Instead, he defined intelligence as the ability to adjust, adapt or deal efficiently with one's environment. According to Piaget, intelligence may be seen to represent all those dynamic traits which help an individual to create optimal conditions for his survival under existing circumstances.

Piaget designed a proper framework to understand the structure, functioning and development of cognitive network of the human mind. He postulated that, like physical organs of the human body, there are two aspects of the human mind: One is referred to as cognitive structure and the other as cognitive functioning. Based on his studies, Piaget stated that the child is born with a few practical instincts and reflexes like sucking, looking, reaching and grasping etc., and this inborn trait make him perform related tasks. The cognitive abilities related to the performing of such tasks were termed schemas (the basic functional units of one's cognitive structure) by Piaget. The schemas available to an individual child decide how he is going to respond to the stimuli present in his physical or social environment.Unlike other creatures, the human baby is born with a few practical instincts and reflexes such as sucking, looking, reaching and grasping. The initial cognitive structure of infants is supposed to incorporate only those cognitive abilities or potentials which help them to do such acts as look, reach out or grasp. Piaget named these abilities or potentials as schemas. This schema is more than a single manifestation of the sucking reflex. It can be thought of as cognitive structure that makes all acts of sucking possible like sucking, grasping and calculating. The various schemas with their contents thus form the

basic structure of the human mind. The earlier schemas represent those reflexes and instincts that are biologically inherited. A child grows with the interaction of physical and social environment he is able to form different schemas, resulting in changes and modifications in his cognitive structure. The structure of an organism is said to play a decisive role in its functioning. Therefore, what is available to an individual in terms of his schemas decides how he is going to respond to the stimuli present in his physical or social environment. On the other hand, the individual has to adapt to his environment for survival as well as proper growth and development. The key to his cognitive development thus lies in his constant interaction with an adaptation to his physical and social environment. The task of such adaptation is carried out through the process of assimilation and accommodation. Assimilation refers to a kind of matching between the already existing cognitive structures and the environmental (school) needs as they arise.

Piaget, on account of his biological background, traced the initiation of human cognitive development in terms of biologically inherited ways of interacting with the environment. He further postulated that the changes and development in one's cognitive structure are brought about by interaction with one's physical and social environment. This task is carried out through the mechanism of equilibration, resulting in constant organization of one's cognitive structure by the interplay of accommodation and assimilation. This task of constant organization of the mental structure is an individual phenomenon; we may find wide difference between children in terms of possession of cognitive abilities. Piaget concluded, this organization of the mental structure in all children always takes place in a particular order involving definite stage of intellectual development. Although children of the same age may differ in terms of possession of mental abilities, the order, in which the

abilities evolve, and the pattern of development are quite constant and universal. Pattern of intellectual development according to Piaget are in terms of the four developmental stages. In the course of intellectual development, significant changes are brought about in his initial cognitive structure (composed of the basic schemas). These changes are the result of maturation, the process of natural growth, and the experiences like interaction with the physical and social environment involving the processes of assimilation, accommodation and equilibration. The constant organization or evaluation of the mental structure, although an individual phenomenon, takes place in all children in a particular order involving definite stages of intellectual development, viz., the sensori-motor stage, pre-operational stage, concrete operational stage and formal operational stage.

The sensori-motor stage (birth to 2 years) is characterized by the absence of language and limited to the child's direct sensory and motor interaction with his environment. During this stage, the child acquires the concept of objective performance, the realization that people are objects do not cease to exist when they are out of his sight. At the pre-operational stage (2 to7 years) the child's direct action in the form of sensory or motor exploration is replaced by words, or with other symbolic representation or images about things in the environment. His thought process at this stage usually displays a high degree of egocentrism, or ability to consider other's point of view. During the concrete operational stage (7 to 11 years), children begin to think logically but are unable to think in abstract terms. Their thought processes are limited to concrete objects and events. They are able to understand the cognitive concepts such as number, classification and conservation. During the formal operation stage (12years to 15years or latter), individuals are able to think abstractly, test hypotheses and deal with problems that are not physically present in their

environment. Actually this stage reflects the most advanced period in the functioning of the cognitive system. The individual here may reach the intellectual potential to discover the solution to problems through mental manipulation of symbols by adopting a logical and systematic way known as scientific thinking and problem solving (brainstorming).

2.5.3 Cognitive Behaviour Therapy by Aaron Beck

Aaron Beck developed an approach known as Cognitive Therapy (CT) as a result of his research on depression. Beck was designing his cognitive therapy about the same time as Ellis was developing REBT, yet both of them appear to have created their approaches independently. Beck's observations of depressed clients revealed that they had a negative bias in their interpretation of certain life events, which contributed to their cognitive distortions (Dattilio, 2000). Cognitive therapy perceives psychological problems as stemming from commonplace processes such as faulty thinking that result to academic task avoidance, making incorrect inferences on the basis of inadequate or incorrect information, and failing to distinguish between fantasy and reality. Cognitive therapy is an insight-focused therapy that emphasizes recognizing and changing negative thoughts and maladaptive beliefs. Cognitive therapy is based on a theory of personality that maintains that people respond to life events through a combination of cognitive, affective, motivational, and behavioural responses. These responses are based in human evolution and individual learning history. The cognitive system deals with the way individuals perceive, interpret, and assign meanings to events. It interacts with the other affective, motivational, and physiological systems to process information from the physical and social environments and to respond accordingly. Sometimes students responses to academic pursue are maladaptive

because of misperception, misinterpretations, or dysfunctional, idiosyncratic interpretations of situations.

Cognitive therapy aims to adjust information processing and initiate positive change in all systems by acting through the cognitive system. In a collaborative process, the therapist and patient examine the patient's beliefs about himself or herself, other people, and the world. The patient's maladaptive conclusions such as academic task avoidance are treated as testable hypotheses. Behavioural experiments and verbal procedures are used to examine alternative interpretations and to generate contradictory evidence that supports more adaptive beliefs and leads to therapeutic change. Cognitive therapy's basic concepts can be thought of as a theory, a system of strategies, and a series of techniques. The theory is based on the idea that the processing of information is crucial for the survival of any organism. Cognitive schemas contain people's perception of themselves and others, and of their goals and expectations, memories, fantasies, and previous learning. These greatly influence, if not control, the processing of information. Beck based his cognitive therapy on the theoretical rationale that the way people feel and behave is determined by how they perceive and structure their experience as in case of students' academic task avoidance. The theoretical assumptions of cognitive therapy are (1) that people's internal communication is accessible to introspection, (2) that client's beliefs have highly personal meanings, and (3) that these meanings can be discovered by the client rather than being taught or interpreted by the therapist (Beck, 2000). The basic theory of CT holds that to understand the nature of an emotional episode or disturbance it is essential to focus on the cognitive content of an individual's reaction to the upsetting event or stream of thoughts. The goal is to change the way clients think by using their automatic thoughts to reach the core schema restructuring.

This is done by encouraging clients to gather and weigh the evidence in support of their beliefs.

Cognitive therapy emphasizes the role of information processing in human response and Adaption. When an individual perceives that the situation requires a response a whole set of cognitive, emotional, motivational, and behavioural schemas are mobilized. Previously, cognitive therapy viewed cognition as largely determining emotions and behaviours. Current thinking views all aspects of human functioning as acting simultaneously as a mode. Cognitive therapy views personality as shaped by the interaction between innate deposition and environment (Beck, Freeman, & Davis, 2003).Personalityattributes are seen as reflecting basic schemas, or interpersonal ‘’strategies,’’ developed in response to the environment. Cognitive therapy sees psychological problems as being ‘’caused’’ by a number of factors. Although people may have biochemical predispositions to illness, they respond to specific stressor because of their learning history. The phenomena of psychopathology (but not necessarily the cause) are on the same continuum as normal emotion but they are manifested in exaggerated and persistent ways. In academic task avoidance, fear, anxiety and loss of interest are intensified desire of self-aggrandizement. Individuals experience psychological distress when they perceive a situation as threatening their vital interests. At such times, their perceptions and interpretations of events are highly selective, egocentric, and rigid. This results in a functional impairment of normal cognitive activity. There is a decreased ability to turn off idiosyncratic thinking, to concentrate, recall, or reason. Corrective functions, which allow reality testing and refinement of global conceptualizations, are attenuated.

Academic task avoidance anxiety disorders are conceptualized as excessive functioning or malfunctioning of normal survival mechanisms. Thus, the basic mechanisms for coping with threat are the same for both normal and anxious people: physiological responses prepare the body for escape or self-defense. The same physiological responses occur in the face of psychosocial threats as in the case of physical dangers. The anxious person's perception of dangers is either based on false assumptions or exaggerated, whereas the normal response is based on a more accurate assessment of risk and the magnitude of danger. In addition, normal individuals can correct their misperceptions using logic and evidence. Anxious individuals have difficulty recognizing cues of safety and other evidence that would reduce the threat of danger. Thus, in cases of anxiety, cognitive content revolves around themes of danger, and the individual tends to maximize the likelihood of harm and minimize his or her ability to cope. In phobias, there is anticipation of physical or psychological harm in specific situations. As long as patients can avoid these situations, they do not feel threatened and may be relatively comfortable. When they enter into these situations, however, they experience the typical subjective and physiological symptoms of severe anxiety. As a result of this unpleasant reaction, their tendency to avoid the situation in the future is reinforced. In evaluating phobias, there is fear of disparagement or failure in social situations, examinations, and public speaking. The behavioural and physiological reactions to the potential "danger" (rejection, devaluation, failure) may interfere with the patient's functioning to the extent that they can produce just what the patient fears will happen.

Cognitive therapy consists of highly specific learning experiences designed to teach patients (1) to monitor their negative, automatic thoughts (cognitions), (2) to recognize the

connections among cognition, affection, and behaviour, (3) to examine the evidence for and against distorted automatic thoughts, (4) to substitute more reality-oriented interpretations with these biased cognitions, and (5) to learn to identify and alter the beliefs that predispose them to distort their experiences (Beck, Freeman, & Davis,2003). Both cognitive and behavioural techniques are used in cognitive therapy to reach these goals. The technique used at any given time depends on the patient's level of functioning and on the particular symptoms and problems presented. Verbal techniques are used to elicit the patient's automatic thoughts, analyze the logic behind the thoughts, identify maladaptive assumptions, and examine the validity of those assumptions. Automatic thoughts are elicited by questioning the patient about those thoughts that occur during upsetting situations. If the patient has difficulty recalling thoughts, imagery or role playing can be used. Automatic thoughts are most accurately reported when they occur in real-life situations. Such hot cognitions are accessible, powerful, and habitual. The patient is taught to recognize and identify thoughts and to record them when upset. Cognitive therapists do not interpret patients' automatic thoughts but, rather, explore their meanings, particularly when a patient reports fairly neutral thoughts yet displays strong emotions. In such cases, the therapist asks what those thoughts mean to the patient. Automatic thoughts are tested by direct evidence or by logical analysis.

The cognitive therapist operates on the assumption that the most direct way to change dysfunctional emotions and behaviours is to modify inaccurate and dysfunctional thinking. The cognitive therapist teaches clients how to identity these distorted and dysfunctional cognitions through a process of evaluation, through a collaborative effort; clients learn the influence that cognition has on their feelings and behaviours and even on

environmental events. In cognitive therapy, clients learn to engage in more realistic thinking, especially if they consistently notice times when they tend to get caught up in catastrophic thinking. After they have gained insight into how their unrealistically negative thoughts about academic task avoidance that are affecting them; clients are trained to test these automatic thoughts against reality by examining and weighing the evidence for and against them. This process of critically examining their core beliefs involves empirically testing them by actively engaging in a Socratic dialogue with the therapist, carrying out homework assignments, gathering data on assumptions they make, keeping a record of activities and forming alternative interpretations (Dattilio, 2000). Client form hypotheses about their behaviour and eventually learn to employ specific problem-solving and coping skills, through a process of guided discovery, clients acquire insight about the connection between their thinking and the ways they act and feel. Cognitive therapy is focused on present problems, regardless of a client's diagnosis. The past may be brought into therapy when the therapist considers it essential to understand how and when certain core dysfunctional beliefs originated and how these ideas have a current impact on the client's specific schema (Dattilio, 2002). The goals of this brief therapy include providing symptom relief, assisting clients in resolving their most pressing problems, and teaching clients prevention strategies. More recently, increasing attention has been placed on the unconscious, the emotional dimension, and even existential components of CT treatment (Dattilio, 2002).

The overall strategies of cognitive therapy involve primarily a collaborative enterprise between the patient and the therapist to explore dysfunctional interpretations and try to modify them. This collaborative empiricism views the patient as a practical scientist who lives by interpreting stimuli but who has been temporarily thwarted by his or her own

information gathering and integrating apparatus (Tompkins, 2004). The second strategy, guided discovery, is directed toward discovering what threads run through the patient's present misperceptions and beliefs and linking them to analogous experiences in the past. Thus, the therapist and patient collaboratively weave a tapestry that tells the story of the development of the patient's disorder. The therapy attempts to improve reality testing through continuous evaluation of personal conclusions. The immediate goal is to shift the information processing apparatus to a more "neutral" condition so that events will be evaluated in a more balanced way. There are three major approaches to treating dysfunctional modes: (1) deactivating them, (2) modifying their content and structure, and (3) constructing more adaptive modes to neutralize them. In therapy, the first and third approaches are often accomplished simultaneously, for the particular belief may be demonstrated to e dysfunctional and a new belief to be more accurate or adaptive. The deactivation of a dysfunctional mode can occur through distraction or reassurance, but lasting change is unlikely unless a person's underlying core beliefs are modified.

Techniques used in cognitive therapy are directed primarily at correcting errors and biases in information processing and at modifying the core beliefs that promote faulty conclusions. The purely cognitive techniques focus on identifying and testing the patient's beliefs, exploring their origins and basis, correcting them if they fail an empirical or logical test, or problem solving. Therapy may be directed toward problem solving with an understanding of how these beliefs influence the patient. Cognitive therapy also uses behavioral techniques such as skills training (relaxation, assertiveness training, social skills training), role playing, behavioral rehearsal, thought-stopping, and exposure therapy. De Houwer, Crombez and Baevens (2005) cognitive theory emphasized the meditational role

played by expectancies in learning when to respond and when not to respond during signaled avoidance procedures. According to this account, avoidance responding is acquired through a controlled cognitive process of comparing the expected outcomes of responding and not responding. This approach combines cognitive and psychotherapeutic approaches to encourage clients to use their own resources to develop their skills of thought-stopping in tackling negative thought that result to academic task avoidance. These acquired thought-stopping skills are needed by students to change their destructive patterns of behaviour. This involves the treatment of negative thoughts using various techniques of thought-stopping counselling. Such techniques include directive, insight interpretative, supportive and forcing conformity techniques.

2.5.4 Rational Emotive Behaviour Therapy by Albert Ellis

Rational emotive behavior therapy (REBT), a theory of personality and a method of psychotherapy developed in the 1950s by clinical psychologist Albert Ellis.Formerly known as rational emotive therapy (RET), this approach is more accurately referred to as rational emotive behaviour therapy (REBT). From the beginning, REBT considered the importance of both mind and body, or of thinking/feeling/wanting (contents of the mind according to psychology) and of behaviour (the operations of the body). It has stressed that personality change can occur in both directions: therapists can talk with people and attempt to change their minds so that they will behave differently, or they can help clients to change their behaviours and thus modify their thinking. REBT theory states that humans rarely change a profound self-defeating belief unless they act against it. Thus, it is most accurately called rational emotive behaviour therapy. Rational emotive behavior therapy (REBT) is a comprehensive system of personality change that incorporates cognitive, emotive, and

behaviour therapy methods. It is based on a clear cut theory of emotional health and disturbance, and the many techniques it employs are usually related to that theory. Its major hypotheses also apply to childrearing, education, social and political affairs, the extension of people's intellectual and emotional frontiers, and support of their unique potential for growth. REBT psychology is hardheaded, empirically oriented, rational, and non-magical. It fosters the use of reason, science, and technology. It is humanistic, existentialist, and hedonistic. It aims for reduced emotional disturbance as well as increased growth and self-actualization in people's intrapersonal and interpersonal lives.

REBT theory holds that people are biologically and culturally predisposed to choose, create and enjoy, but that they are also strongly predisposed to over-conform, be suggestible, hate, and foolishly block their enjoying. Although they have remarkable capacities to observe, reason imaginatively enhance their experiencing, and transcend some of their own essential limitations, they also have strong tendencies to ignore social reality and misuse reason that frequently sabotage their health and happiness. Because of their refusals to accept social reality on their continual masturbation and are frequently wind up with emotional disturbances. Because consciously and/or implicitly believing in one or more unrealistic and illogical imperative, people very likely make themselves seriously task avoidant, depressed, enraged, and self-pitying. These feelings, REBT holds, are usually unhealthy or dysfunctional and are often accompanied by self-defeating behaviours such as avoidance, noncompliance, procrastination, addition, poor relationships, violence and phobias. But if people change their grandiose demands to flexible preferences when their goals and desires are unfulfilled, they will tend mainly to experience healthy negative feelings such as sorrow, regret, and frustration and they will be significantly less disturbed

and will function better. REBT is based on the premise that when people feel disturbed and function badly, they frequently construct unrealistic "musts" about their symptoms and thereby make themselves depressed about their avoidance. The ABC theory of REBT states that A (Adversities) may contribute heavily to C (dysfunctional emotional and behavioural Consequences); but equally important in "causing" C is B (Irrational Beliefs) about A. REBT theory also hypothesizes that when therapists help clients to clearly see, and actively to Dispute (D) and change their dye-functional Beliefs (B), and particularly to replace them with preferences instead of demands, they tend to wind up with E (Effective New Philosophies) that are usually accompanied by other functional E's—notably, effective new feelings and effective new behaviours.

The ABCDE theory of disturbance and how it can be helped by Disputing (D) clients' irrational beliefs (B) has been tested in hundreds of studies of REBT and CBT. The great majority of these studies show, first, that people with disturbances have more frequent and more strongly held dysfunctional beliefs than less disturbed individuals, and they tend to become less seriously disturbed with REBT treatment. REBT theory states that people easily and often adopt and construct self-defeating and socially defeating beliefs; practice holding on to and reinforcing them for many years; and habituate themselves to dysfunctional behaviours that are difficult to change. In spite of often understanding how handicapping their thoughts, feelings, and behaviors are, they often have great difficulty rectifying them and maintaining their effective new behaviours. Some seriously disturbed academic task avoidance students may have biochemical tendencies to be dysfunctional and may be helped to function better with REBT or their forms of therapy plus suitable psychotropic medication. Most clients or patients can be taught to understand how they frequently harm

themselves; they can decide to change their self-destructive thoughts, feelings, and actions; and they can actually do so – with considerable work and practice. If what academic task avoidance student say to himself affect what his feelings and behaviours are, the primary task of the researcher is to help the subject after disruptive cognitive patterns and this brings about desired changes in responding. Ellis REBT, it is not the stimulus of the academic task which causes the anxiety but the students' interpretation of the situation, or what the students say or think to himself about the situation which creates the problem. REBT assumes that cognition and emotion are interrelated processes and that one can change one's emotional response by altering one's thinking. Thought and emotion are manifest in self-talk or internalized statements. Such statements activate emotional arousal. Much of this self-talk evolves, around illogical ideals about human functioning. In REBT, the researcher needs to show the subjects how to vigorously challenge, question, and dispute their irrational relief.

Most other individuals with difficulties are treated with REBT. These include clients with maladjustment, moderate anxiety, or marital problems; those with sexual difficulties; run – of – the mill "neurotics" individuals with character disorders; truants, juvenile delinquents, and adult criminals; borderline personalities and others with personality disorders; overt psychotics, including those with delusions and hallucinations when they are under medication and somewhat in contact with reality; individuals with higher-grade mental deficiency; and clients with psychosomatic problems. Although varying types of problems are treated with REBT, no claim is made that they are treated with equal effectiveness. As is the case with virtually all psychotherapies, the REBT approach is more effective with clients who have a single major symptom (such as sexual inadequacy) than with seriously disordered clients (Ellis, 2002). This is consistent with several hypotheses of

REBT theory: that the tendency toward emotional distress is partly inborn and not merely acquired, that individuals with serious aberrations are more innately predisposed to have rigid, and crooked thinking than are those with lesser aberrations, and that these clients consequently are less likely to make major advances. Moreover, it emphasizes commitment to changing one's thinking and to doing homework activity assignments, and it is clinically observable that many of the most dramatically symptom ridden individuals (such as those who are severely depressed) tend to do considerably less work and more shirking (including shirking at therapy) than those with milder symptoms.

REBT is a cognitive-emotive-behaviouristic method of psychotherapy uniquely designed to enable people to observe, understand, and persistently dispute their irrational thought. It employs the logic-empirical method of science to encourage people to surrender magic, absolutes, and damnation; to acknowledge that nothing is sacred or all-important (although many things are exceptionally unpleasant and inconvenient); and to gradually teach themselves and to practice the philosophy of desiring rather than demanding and of working at changing what they can change and gracefully accepting what they cannot change about themselves, about others, and about the world (Ellis, 2002). Rational emotive behaviour therapy is a method of personality change that quickly and efficiently helps people resist their tendencies to be too conforming and suggestible. It actively and didactically, as well as emotively and behaviourally, shows people how to abet and enhance one side of their humanness, while simultaneously changing and living more happily with (and not repressing or squelching) another side. It is thus realistic and practical as well as idealistic and future-oriented. It helps individuals to more fully actualize, experience, and enjoy the here and now, but it also espouses long-range hedonism, which includes planning

for their own (and others') future. It is what its name implies: rational and emotive and behavioral, realistic and visionary, empirical and humanistic.

2.5.5 Classical Conditioning Theory by Ivan Pavlov

The researcher with which classical conditioning is most often associated is Ivan Pavlov. In fact, classical conditioning is sometimes referred to as "Pavlovian" conditioning. Pavlov was a Russian physician and researcher who did a lot of important work studying the digestive system, for which he won a Nobel Prize in 1904. Pavlov (1902) started from the idea that there are some things that a dog does not need to learn. For example, dogs don't learn to salivate whenever they see food. This reflex is 'hard wired' into the dog. In behaviourist terms, it is an unconditioned response (i.e. a stimulus-response connection that required no learning). In behaviourist terms, we write: Unconditioned Stimulus (Food) >Unconditioned Response (Salivation). Pavlov showed the existence of unconditioned response by presenting a dog with a bowl of food and then measuring its salivary secretions. When Pavlov discovered that any object or event which the dog learnt to associate with food (such as the lab assistant) would trigger the same response, he realized that he had made an important scientific discovery, and he devoted the rest of his career to studying this type of learning. Pavlov knew that somehow, the dogs in his lab had learned to associate food with his lab assistant. This must have been learned, because at one point the dogs did not do it, and there came a point where they started, so their behaviour had changed. A change in behavior of this type must be the result of learning. In behaviourist terms, the lab assistant was originally a neutral stimulus. It is called neutral because it produces no response. What had happened was that the neutral stimulus (the lab assistant) had become associated with an unconditioned stimulus (food). In his experiment, Pavlov used a bell as his neutral stimulus.

Whenever he gave food to his dogs, he also rang a bell. After a number of repeats of this procedure, he tried the bell on its own. As one might expect, the bell on its own now caused an increase in salivation. So the dog had learned an association between the bell and the food and a new behaviour had been learnt. Because this response was learned (or conditioned), it is called a conditioned response. The neutral stimulus has become a conditioned stimulus.

Pavlov found that for associations to be made, the two stimuli had to be presented close together in time. He called this the law of temporal contiguity. If the time between the conditioned stimulus (bell) and unconditioned stimulus (food) is too great, then learning will not occur. Pavlov and his studies of classical conditioning have become famous since his early work between 1890 to1930. Classical conditioning is "classical" in that it is the first systematic study of basic laws of learning / conditioning. He is best known however, for his development of a model for describing a basic non-conscious instinctual type of learning. The classical conditioning experiment conducted by Pavlov goes as follows: A dog is hooked to a mechanism that measures the amount that the dog salivates. A tone is sounded just before a dog is given meat powder. This occurs several times. Eventually, conditioning occurs in that the dog salivates just to the bell alone. The dog salivates instinctively in response to the food, but “learns” to salivate to the sound of the bell, much as you might find your mouth watering at the sight, smell, or even memory of your favourite food. Pavlov used this relatively simple experiment as a model for describing much of the automatic learning that occurs in everyday life. People learned to respond automatically to some sort of stimulus with fear, joy, excitement, or anticipation becomes classically conditioned.

Pavlov identified four basic components in this classical conditioning model. The unconditioned stimulus (US) is the stimulus that naturally and instinctively elicits the target response, which, in the case of his classic experiment is the meat powder. The conditioned stimulus (CS) is the stimulus that comes to elicit the target response, which was the tone in Pavlov's experiment. The unconditioned (UCR) and conditioned responses (CR) are a little trickier to identify in that they are often the exact same behavior. In Pavlov's experiment they are both salivation. The fundamental difference is that the unconditioned response occurs as a result of the unconditioned stimulus, and the conditioned response occurs in response to the conditioned stimulus. In the Pavlov experiment, the unconditioned response is salivation in response to the meat powder, and the conditioned response is salivation in response to the tone. Pavlov in his initial formula for conditioning entailed presenting stimulus. The first stimulus is called the conditional or conditioned stimulus (CS). The second stimulus is called the unconditional or unconditioned stimulus (US or UCS), and the salivary response to that stimulus is called the unconditional or unconditioned response (UR or UCR). After a number of CS-US pairings, or conditioning trials, presented at intervals of a few minutes, the dog does salivate upon hearing the metronome, that salivation is called the conditioned or conditional response (CR). It is a hall-mark of the Pavlovian procedure that the unconditioned stimulus is presented whether the organism responds to the conditioned stimulus or not. The food is not a reward given to the dog when it salivates in response to the metronome; rather salivation to the metronome is engendered as a consequence of the temporal arrangement of metronome and food. Another phenomenon that Pavlov identified was a phenomenon that has come to be known as "spontaneous recovery". This is the re-occurrence of a classically conditioned response after extinction has

occurred. Extinction refers to the fact, that, if the conditioned and unconditioned stimuli are not paired for a given number of trials an organism will stop exhibiting the conditioned response. This would be spontaneous recovery. A final important characteristic of classical conditioning is referred to as generalization. This is the case where stimuli that are like the conditioned stimulus come to elicit the same response.

Barlow (2002) affirmed that Pavlovian conditioning of emotional responses has been a major focus of research on learning for many years, with fear and anxiety the most widely studied examples because of their relevance for the understanding and treatment of human anxiety disorders. Fear-conditioning experiments with the rat typically entail occasional presentations of an auditory or visual CS followed by a brief, painful foot shock (US), which evokes a brief burst of activity. Within a few trials, onset of the conditioned stimulus evokes behaviour indicative of fear. The use of learning principles in behaviour therapy in Agras and Wilson (2005) illustrates the role of classical conditioning when a previously neutral stimulus is paired with a frightening event (the unconditioned stimulus, or US), it can become a conditioned stimulus (CS) that elicits a conditioned response (CR) such as anxiety. Current analysis of classical conditioning has moved away from the once-popular notion that what was learned consisted of simple S-R bonds. Rather, students learn that there are correlational or contingent relationships between the CS and US. This learning defines the conditioning process. Classical conditioning is no longer seen as the simple pairing of a single CS with a single US. Instead, correlations between entire classes of stimulus events can be learned. People may be exposed to traumatic events (contiguity) and yet not develop phobic reactions unless a correlational or contingent relationship is formed between the situation and the traumatic event. This approach is focused on man's response

to his environment. Students' academic task avoidance behaviour could be learnt based on their contact with the school and its environment. Such learned behaviours can be unlearned using reconditioning technique, reinforcement, social modelling, explanations and encouragement. The application of any of these techniques requires analysis of client's past in order to determine his present behaviour.

2.5.6 Operant Conditioning Theory by Skinner

This theory was developed by Burrhus Frederic Skinner. In simple terms, operant conditioning is the control of behaviour using reinforcement and punishment. Skinner is regarded as the father of Operant Conditioning, but his work was based on Thorndike's law of Effect. Skinner introduced a new term into the Law of Effect - Reinforcement. Behaviour which is reinforced tends to be repeated (strengthened); behaviour which is not reinforced tends to die out-or be extinguished. Skinner (1948) studied operant conditioning by conducting experiments using animals which he placed in a "*Skinner Box*" which was similar to Thorndike's puzzle box. Skinner (1938) coined the term operant conditioning; it means roughly changing of behaviour by the use of reinforcement which is given after the desired response. Skinner identified three types of responses or operant that can follow behaviour.

• Neutral operant: responses from the environment that neither increase nor decrease the probability of a behaviour being repeated.

•Reinforcers: Responses from the environment that increase the probability of a behaviour being repeated. Reinforcers can be either positive or negative.

•Punishers: Response from the environment that decrease the likelihood of a behaviour being repeated. Punishment weakens behaviour.

Some students think of how their behaviour of academic task avoidance has been affected by reinforcers and punishers. Students probably tried out a number of behaviours and learnt from their consequences before resolving to be academic task avoidant. Skinner showed how positive reinforcementworked by placing a hungry rat in his Skinner box. The box contained a lever in the side and as the rat moved about the box, it accidentally knocked the lever. Immediately it did so, a food pellet dropped into a container next to the lever. The rats quickly learned to go straight to the lever after a few times of being put in the box. The consequence of receiving food if they pressed the lever ensured that they would repeat the action again and again. Positive reinforcement strengthens a behaviour by providing a consequence an individual finds rewarding. If teacher gives a student five naira each time he/she completes homework (a reward) he/she is more likely to repeat this behaviour in the future, thus strengthening the behaviour of completing homework. The removal of an unpleasant reinforcer can also strengthen behaviour. This is known as negative reinforcementbecause it is the removal of an adverse stimulus which is 'rewarding' to the animal. Negative reinforcement strengthens behaviour because it stops or removes an unpleasant experience. Skinner showed how negative reinforcement worked by placing a rat in his Skinner box and then subjecting it to an unpleasant electric current which caused it some discomfort. As the rat moved about the box it would accidentally knock the lever. Immediately it did so the electric current would be switched off. The rats quickly learned to go straight to the lever after a few times of being put in the box. The consequence of escaping the electric current ensured that they would repeat the action again and again.

Skinner even taught the rats to avoid the electric current by turning on a light just before the electric current came on. The rats soon learned to press the lever when the light

came on because they knew that this would stop the electric current being switched on. These two learned responses are known as escape learning and avoidance learning. According to Sharf (2004), operant conditioning is the type of learning in which behaviour is altered by systematically changing consequences. This type of learning is similar to Thorndike's instrumental conditioning in that behaviour is controlled by its effects or consequences and the term operant refers to the fact that the animal acts or operates on its environment in order to produce some effect. Behaviour of this type is labeled an operant behaviour or simply an operant. An operant is emitted; it is not automatically elicited by a stimulus as classically conditioned behaviour is under the control of the environmental events. The primary law relating to operant to environmental events is the law of reinforcement. It states that a behaviour followed by a positive consequence will be more likely to occur in the future (Lazarus, 2006). According to Gredler (2001) six assumptions form the foundation of operant conditioning theory are as follows: Learning is behavioural change; Behavioural change (learning) is functionally related to change in the environment; The lawful relationship between behaviour and the environment can be determined only if behavioural properties and environmental conditions are defined in physical terms and observed under carefully controlled conditions; Data from the environmental study of behaviour are the only acceptable sources of information about the causes of the behaviour; the behaviour of the individual organism is the appropriate data source, and; The dynamics of an organism's interaction with the environment is the same for all species.

Operant conditioning involves a type of learning in which behaviours are influenced mainly by the consequences that follow them. If the environmental changes brought about by the behaviour are reinforcing-that is, if they provide some reward to the organism or

eliminate aversive stimuli-the chances are increased that the behaviour will occur again. If the environmental changes produce no reinforcement or produce aversive stimuli, the chances are lessened that the behaviour will recur. Operant conditioning emphasizes that behaviour is a function of its environmental consequences. Behaviour is strengthened by positive and negative reinforcement; it is weakened by punishment. Positive reinforcement refers to an increase in the frequency of a response followed by a favourable event when a teacher or parent praises a child for obtaining a good report card. Negative reinforcement refers to an increase in behaviour as a result of avoiding or escaping from an aversive event that one would have expected to occur.

2.6 Review of Empirical Studies

The study of AL-Harbi (2002) examined the impact of the use of brainstorming and the development of critical thinking and academic achievement in a sample of (63) students from the secondary first grade in biology in the Kingdom of Saudi Arabia, where the students were divided into two groups, one experimental and the other is control, the results have shown the presence of statistically significant differences between the average achievement of the objectives knowledge of Bloom's Taxonomy for the experimental group which studied the use of the brainstorming.

Sambo (2002) study investigated the effectiveness of brainstorming technique in fostering ideative creative among secondary school students in Kaduna state. The study sample consisted of three hundred and twenty (330) male and female students of junior secondary II and senior secondary II. The treatment groups were provided with brainstorming technique exercise at treatment session over a period of four consecutive weeks while the control groups were taught with lecture method of teaching. The subjects

were tested on pre-treatment and post-treatment bases; using the Ibadan Creativity Assessment Scale (ICAS) designed by Akinboye (1987). The analyses of data collected revealed that brainstorming technique exercise effectiveness in enhancing the ideative creativity potential of the subjects. From the study the post-treatment creative scores of both the creative respondents were significantly higher than the pre-treatment scores. The finding also shows that the technique differentially affected the creative score of the female and male subjects of both the creative and non-creative groups. Six of the eight null hypotheses tested in the study were rejected while two were retained.

The study of Darayseh(2003) examined effects of semantic map and brainstorming in the development of attitudes and writing ability in English for students of the scientific secondary first grade, and to assess the role played by these strategies in improving their attitudes toward writing in Ramtha area where the study population consisted of all students of the scientific secondary first grade in the educational government schools of the Directorate of Ramtha Educational District in the academic year of (2002- 2003).Thesample consisted of (212) learners (males, females), spread over three divisions for males and three females were selected randomly. The experimental group formed two divisions of males and two divisions of females, while the control group consisted of the division for males and one for females, The study showed the results and most importantly, there were significant differences in favour of the experimental group that were taught according to the proposed programme.

Helmut and Gisela (2003)in their experiments on group versus individual performance on tasks requiring ideational proficiency (brainstorming) reviewed that subjects were asked to produce ideas that were relevant to a given task request (possible

consequences of a hypothetical event). After describing the specific task material and the performance measures used in the relevant research studies, some analytic background is given by outlining the cognitive resources required in this kind of experimental task and by listing the various factors that may come into play when subjects perform in groups (with discussion) instead of individually. We then review the studies comparing individual and group performance. In all of these experiments the subjects were asked to work according to the rules of brainstorming, which prescribe that participants refrain from evaluating their ideas. This procedure purportedly results in superior group, relative to individual, performance. The empirical evidence clearly indicates that subjects brainstorming in small groups produce fewer ideas than the same number of subjects brainstorming individually. Less clear evidence is available on measures of quality, uniqueness and variety. The discussion considers factors that may be responsible for this inferiority of groups. The role of social inhibition receives particular attention also in terms of suggestions for research. Apart from the group-individual comparison we review the existing research concerning factors that may influence group performance on idea-generation tasks.

Shear. Frank. Houck and Reynolds (2005) reported that three different cognitive behavioural therapies have shown efficacy for post grief disorder. The first of these conducted consisted of 16 weekly one-hour brainstorming counselling session. The brainstorming session included exercise intended to encourage participants to more full process and accept the reality of the loss. Next, the therapist asked participants to brainstorm plans for moving toward life goals and embarking on valued activities, including those that clients may currently avoided because of the loss. These researchers reported that the participants made concrete bahaviour changes each week outside the brainstorming

counselling sessions in accordance with the plans developed for the therapy. Through-out all phases of the therapy the therapists helped the participants to challenge maladaptive grief-related thoughts that may arise in brainstorming counselling session, such as self-blame, or inappropriate guilt.Al-Blwi (2006) conducted a study to investigate the effectiveness of brainstorming in developing creative thinking and measuring the thinking happening among science stream students. The sample consisted of (100) male and female students chosen from two school in Tabouk public schools one for males and the other for females. Two classes were chosen, each class consisted of (25) students. The findings of the study showed that there were significant statistical differences between the study groups attributed to the teaching method of creative thinking. There were no significant statistical differences between the means of males and females, performance and the interaction between the method and gender.

BaniHamad (2006) investigated the effect of brainstorming in eighth grade students' achievement in science according to Bloom taxonomy. To achieve the aim of this study, classes totaling (64) students were chosen randomly to present the groups of the study. Each group consisted of (32) students, the first, studied through brainstorming while the second, studied through the traditional method. The findings of the study showed that there were no significant statistical differences between the means of students' scores in both groups on the pre-test attributed to the teaching strategy. Moreover, there were no significant statistical differences between the means of students' scores in both groups on each category of the Taxonomy attributed to the teaching strategy.Boelem, Keijser, Van den Hout and Van den Bout (2007), in their study focused on six weekly sessions devoted to repeated narration of the story of the participants about the loss, home-work for the participants, encouragement

for participants to confront situations that have been avoided because they serve as reminder of the loss. This was followed by another six weeks devoted noticing and challenging unhelpful negative thoughts that the participants may entertain. The result of their study showed the brainstorming counselling therapy was found to be more effective in helping participants cope with post grief disorder. Al-Olimat (2008) studied the effect of brainstorming and discovery strategies in developing creative thinking among eighth graders in science in Jordan. The sample was chosen purposefully totaling (85) students distributed into an experimental group and a control group. The findings of the study showed that there was an evident effect for brainstorming and discovery in developing creative thinking. Moreover, there were differences between both strategies in favour of brainstorming.

Elizabeth (2009) examined the use of improvisation to enhance the effectiveness of brainstorming. Group brainstorming is a popular ideation method for design teams, yet brainstorming outcomes vary greatly. The method depends on individuals working collectively to generate ideas, and so group dynamics determine whether the method succeeds or fails. This paper explores how interaction designers used techniques from theatrical improvisation, or improve, to adhere to the rules of brainstorming thereby enhancing group interactions while collaborating. The usefulness of improvisation for brainstorming stems from the similarity of the goals of improvisation and brainstorming, the similarity of the recurrent problems that actors and designers encounter when collaborating, and the distinctness of the ways each have devised to resolve the problems that block the group's performance. This study reflects on the individual- and group-level outcomes for design students and practitioners while brainstorming.

Al-Qarni (2011) studied the effectiveness of brainstorming strategy in developing creative thinking among third intermediate students in Qurayyat city. Purposeful random sampling was drawn, the sample consisted of (115) male and female students. Two classes were chosen to represent the experimental group. The researcher administrated Torrance test (Form A) as a pre-test. The findings of the study showed that there were statistical differences between the means of both groups on the test in the favor of the experimental group studied through brainstorming. Moreover, there were no statistical significant differences between the means of male and female students' scores on the creative thinking test and sub skills attributed to gender. There were statistical difference between the means of students' scores on the post test and its sub skills attributed to interaction between gender and the teaching method.

Wittouck. Van Autreve. De Jaegere, Portzky and Van Heeringen (2011) reported on experimental studies done using brainstorming to reduce psychological distressthat may follow a significant loss. Various events can precipitate grief reactions, such as loss of marriage, employment, housing, health; it may also include grief over inability to conceive biological child/children.

Doughty, Wissel and Glorfield (2011) reported that sub-set of individual developed severe grief symptoms that do not abate even years after the death of loved ones. Reports on their empirical studies showed that at post-test there were significant improvements on participants' levels of grief: reduction in confusion about self-identity/ life role; reduction in difficulty in accepting the loss; reduction in difficulty in moving forward in life; reduction in anger related to the loss and improvement in feeling of meaningfulness after the loss.Adeyemi and Ajibade (2011) investigated the comparative effects of simulation games

and brainstorming instructional strategies on Junior Secondary School Students' achievement in Social Studies in Nigeria. The study adopted a quasi-experimental design (3 x 2 non-randomized pre-test, post-test control group) comprising three groups made up of two experimental groups and one control. Simple random sampling was employed in selecting 240 students from six selected schools comprising two arms of JSS 2. Four instruments namely: Social Studies Achievement Test (SSAT), Operational Guide for Simulation Games (OGSG), Operational Guide on Brainstorming (OGB) and Operational Guide for Teacher Exposition (OGTE) were used with reliability coefficients of 0.84, 0.76, 0.81 and 0.78 respectively. Research hypotheses were generated and tested. Data analysis was done using mean, standard deviation, and Analysis of Covariance (ANCOVA). Results revealed that there was a significant main effect of the treatment on students' achievement in Social Studies ($F(2,233) = 159.321$; $P < 0.05$). Findings also indicated that there was a significant main effect of gender on students' achievement in Social Studies. ($F(1.233) = 20.687$; $P < 0.05$) and finally, results showed that there was significant interaction effect of treatment and gender on students' achievement in Social Studies ($F(2.233) = 17.644$; $P < 0.05$).

The studies on the efficacy of brainstorming counselling in managing behaviour disorder as reported by Rosener, Lambeck and Geisser (2011) involved brainstorming group therapy delivered twice, weekly. The brainstorming counselling session allowed participants to brainstorm and to brain- write about their grief. Participants completed -brain-writing exercise involving confrontation with the loss, learning to identify and reduce avoidance of loss reminders and practicing to challenge unhelpful/irrational thoughts related to the loss. The result of this study showed that brainstorming technique of counselling had significant

effect on post grief disorder of participants (that isimproved participant psychological functioning) in the experimental group over control group.Salem(2011) study investigated the effect of using the brainstorming technique on developing first secondary grade students' essay writing skills in English as a Foreign Language (EFL). The study attempted to answer the following questions: 1-What are the essay writing skills needed for first secondary grade students in EFL? 2- What is the effect of using the brainstorming technique on developing first secondary grade students' essay writing skills in EFL? Tools of the study included a checklist to identify the essay writing skills needed for first secondary grade students in EFL as well as a pre- post essay writing test and its scoring scale. Results revealed the effect of using the brainstorming technique on developing first secondary grade students' essay writing skills in EFL.

Ricardo and John (2012) examined brainstorming in solitude and teams as a computational study of the role of group influence. Early studies of brainstorming showed that individuals tend to generate more and better ideas than groups. But recent studies depict a more complex picture, reinforcing the need to better understand the interplay between individual and group ideation. Group influence can be one way to address the complex interplay between ideas in brainstorming. We define group influence as the degree to which individuals are influenced by ideas coming from other team members. This study presents results from a multi-agent simulation of the role of group influence in brainstorming groups, which support a number of insightful hypotheses to consider.

Bilal (2012) in his study examined the effect of using brainstorm strategy in developing creative problem solving skills among female students in Princess Alia University College. The sample of the study consisted of (98) female students. The sample

was distributed into two classes, the first represents the experimental group totaling (47) students taught through brainstorming strategy within the course of developing thinking skills in the academic year 2010/2011, and the second represents the control group totaling (51) students. The instruments of this study were a programme to use brainstorming strategy and Torrance creative thinking test. Both validity and reliability were checked by the researcher. The findings of the study showed that there were statistical significant differences at the level of ($\alpha = 0.05$) between the experimental group and the control group in the total score and the sub scores of the creative thinking in the favour of the experimental group indicating the effectiveness of using brainstorming strategy in developing creative thinking skills. Bindu (2014) studied the effects of brainstorming instructional strategies and simulation games on secondary school students' achievement in social studies. Student interaction is an important part of developing the cognitive skills involved in generating ideas, and found brainstorming was an effective way of achieving this. Results from this study showed that students who were trained in brainstorming techniques were more efficient at generating and organizing ideas than students in a control group. Brainstorming and simulation games can play a significant role to improve student's content understanding, thematic integration with real life while teaching social studies and enhancing the confidence and communication skills among students. It is largely due to the fact that brainstorming and simulation games not only stimulates student's attention but also interests them to participate in the class in an interactive and fun-active manner. This study was carried out to examine the effects of brainstorming techniques and simulation games on secondary school students' achievement in Social Studies.

Gbolagade and Adegoke (2014)carried out a survey to investigate brainstorming as an act of creativity in vocational and technical education curriculum in Nigerian secondary schools. The aim is to examine by relevant and notable strategies of brainstorming as an act of creativity with a view to assessing their implications for vocational education curriculum in Nigeria. The researchers designed a self-developed questionnaire entitled Questionnaire on Brainstorming the Act of Creativity in Vocational and Technical Education Curriculum in Nigerian Schools "QBCVTECN". The questionnaire was classified into two sections. Three hypotheses were developed and tested using t-test. The study adopts the multistage sampling to select six States from the six geopolitical zones of the federation. From this selection, one secondary school was selected from each of the States and thirty students were randomly selected from each of the selected secondary schools. This gives a sample size of one hundred and eighty respondents. The findings of the study reveals among others that there is no significant difference between male and female students on brainstorming as an act of creativity in vocational and technical education curriculum in Nigerian secondary schools.Akin, Thomas, Gerald and Armand (2014) examined the effects of brainstorming instructional strategies and simulation games on secondary school students' achievement in social studies. In industrial settings, brainstorming is seen as an effective technique for creativity in innovation processes. However, bulk of research on brainstorming is based on an oversimplified view of the creativity process. Participants were seen as idea generators and the process aims at maximizing the quantity of ideas produced, and the evaluation occurs post-process based on some originality and feasibility criteria. Design theories can help enrich this simplistic process model. The present study reports an experimental investigation of creativity process within the context of real-life design ideation task. Results

lead to the rejection of the classical ‘quantity breeds quality’ hypothesis. Rather, we observe that successful groups are the ones who produce a few original propositions that hold great value for users while looking for ways to make those propositions feasible.

Mohammed (2015) examined the effectiveness of brainstorming in teaching social studies on the achievement students of elementary school in Saudi Arabia. The sample of the study consisted of (62) One- Grade male students selected by purposeful sampling in Jafar School. The sample of the study was divided into two groups such that experimental group consisted of (31) students who studied using the traditional method. To achieve the purpose of the study, the researcher designed the teaching material in accordance to brainstorming, and achievement test to measure the acquisition of students in the unit "Issues and problems". The results of the study showed statistically significant differences in the achievement and the total of achievement in favour of the experimental group that studied using the brainstorming. The study recommended the inclusion of brainstorming as an instructional strategy in education and that the elementary teachers should use brainstorming in their daily lesson plans.

Lawrence (1979) research into thought-stopping was hampered by poor outcome measurement. Three clients referred with pre-occupying thoughts were treated by thought-stopping in a within-subject design. The within-session frequency of intrusive thoughts was measured by the clients' self-report during 12 thought-stopping sessions and 12 thought-stopping sessions following either anxiety-arousal or relaxation. Within-session changes in frequency seemed to reflect both overall clinical outcome and the systematic variations in procedure. Daily rating scale measures of frequency and distress appeared to produce biased results. Implications for research and clinical outcome measurement are discussed. John

(1979) in his study used a modified form of thought stopping to overcome anxiety in two adult clients. The clients, a 52-year-old male and a 23-year-old female, were trained to use the modified thought stopping procedure because they were unable to relax or visualize scenes. The clients were successfully treated in one year and three months respectively and were free of anxiety at one-year follow-up.Garry (1982) in his study combined thought-stopping and stimulus control to decrease persistent disturbing thoughts. The experiment was described has successful in the treatment of two cases that presented problems of compulsive disturbing thoughts. Both cases included a thought-stopping component to terminate the disturbing thoughts, and a stimulus control component—through the use of photographs, to increase alternative desirable thoughts.Affiliations of the thought-stopping technique were applied to a color-naming obsession of 8 years' duration. After 17 treatment sessions the frequency of this obsession had decreased by 95%, and a month later it was entirely absent. It did not recur in the course of a 7-month follow-up period. Other, related obsessions also decreased considerably.

Joseph (2001) in their study used thought stopping procedure to treat a 21-year-old female who complained of persistent obsessions with objects coming at her face and/or eyes. The case illustrated a phenomenon which was termed the “thought stopping burst” which consists of an increase in obsessions at the beginning of treatment followed by a decrease in obsessions.Toshiko, (2002) in his study treated an obsession by thought-stopping. Affiliations of the thought-stopping technique were applied to a color-naming obsession of 8 years' duration. After 17 treatment sessions the frequency of this obsession had decreased by 95%, and a month later it was entirely absent. It did not recur in the course of a 7-month follow-up period. Other, related obsessions also decreased considerably.Voss and Rimm

(2003) in their study examined the relative efficacy of thought-stopping and covert assertion, thought-stopping alone, covert assertion alone and a placebo control was tested. All three experimental treatments were predicted to be superior to the control and differences among the experimental treatments were expected. Thirty-six volunteers with a strong fear of harmless snakes were given one of the four treatments. Results demonstrated the efficacy of the combined treatment, as had been shown in previous research, but also demonstrated the efficacy of the individual components alone. Scheffée Planned Comparisons at the post test and four week follow-up indicated that the three experimental groups were superior to the control on the three self-report and behavioral tests of fear of snakes ($p< 0.01$ for each) but not on a test of fears in general. Scheffée Post Hoc Comparisons showed no significant differences between the experimental groups. The possible overlapping functions of the components are discussed.

Lamontagne, Audet, and Elie (2009) in a pilot controlled study designed to evaluate the efficacy of the thought stopping technique as a treatment for persecutory delusions and auditory hallucinations with chronic schizophrenics already treated with neuroleptics and to compare this combination with patients only treated with antipsychotic drugs. Medication was standardized for each patient and psychological measurements were recorded before and after treatment and during a 6-months follow-up. Results show significant difference in favour of the thought stopping group mainly after treatment.Jonathan's (2010) combined cognitive behavioral approach was used to successfully treat matricidal obsessions in an otherwise psychologically well-adjusted 12-year-old boy. The primary problem was conceptualized as anxiety over loss of control. Therapeutic techniques included re-defining of symptoms, thought-stopping, hypnotic enhancement of imagery in order to facilitate

cognitive restructuring, covert reinforcement, home practice, and paradoxical instructions to produce the symptom. A decline in obsessions began after 3 sessions and total remission was observed after 6 sessions (10 weeks). 2-year follow-up revealed no recurrence of symptoms. The value of hypnosis as an adjunct to behavior therapy with children is discussed.

Leger (2011) in his study of treated two clients troubled by preoccupying thoughts by version of thought stopping described by Wople (1969). The frequency of spontaneous intrusive thought as they occurred within sessions was found to be a useful measure of clinical outcome but it is suggested that careful control and definition of variations in processors in order eliminate spurious result. Treatment found to produce an improvement which was maintained at the follow-up. Husain & Mat (2014) in their study illustrated the management of patient with obsessive compulsive disorder who presented with hypochondriacally and persecutory ideas. Cognitive behavioural hypnotherapy approaches were applied in the management as the patient not keen for pharmacological treatment. Obsessive thoughts were managed via distraction technique, thought stopping and modified it to a helpful compulsive behaviour via direct suggestion during hypnotic state. The compulsive behaviour was managed via hypo-behavioural approaches, reinforced by direct suggestion and pseudo-orientation.Rimm, Saunders, and Westel, (2015) in their study evaluated the use of thought stopping and covert assertion in treating the snake phobias of 21 female undergraduates using 4 behavioral avoidance tests and the Fear Survey Schedule. Findings suggest that the thought-stopping-covert-assertion treatment package holds considerable promise as an efficient and effective clinical tool the treatment of snake phobia.

Students who display academic task avoidant behaviour are at risk for a number of serious negative outcomes that can be summarized in terms of damaging life outcomes in general and detrimental effects on academic achievement. Walker and Rankin (1983) on the harmful outcomes of task avoidant behaviour as part of an extensive eight years research project, surveyed a national sample of more than 1,100 teachers, K–12, regarding the expectations general education teachers held for students in their classrooms. The results showed that more than 90% of teachers participating in the survey rated task avoidance and defiance toward teachers as one of the least acceptable maladaptive behaviours in their classrooms.

Colvin, Kame'enui and Sugai (1993) in their study found across three schools that task avoidance was either the most common or second most common reason for referrals. More recently, a review of data from School-Wide Information System (SWIS) on reasons for office discipline referrals was conducted from data for an urban school district in Oregon, composed of approximately 5,700 students. Results showed that for the elementary schools, K–5, the highest ranking reasons for referrals were as follows: first, aggression/fighting 28.8%; second, task avoidance /disrespect 27.9%; and third, inappropriate language, 11.3%. In the case of the middle schools, Grades 6–8, by far the most common reason for referrals was task avoidance at 31.0%, with aggression/fighting ranked a distant second at 17.7%. At the high school level, the top three reasons for referral were defiance, 20.8%, cell phone misuse, 15.9%, and fighting, 7.3 %, respectively.

In a longitudinal study of children exhibiting task avoidance, Kochanska, Aksan and Koenig (1995) found that task avoidance, especially severe academic task avoidance, is especially stable over time. This means that these students are likely to exhibit task

avoidance throughout their school career, at home, and into later life.Van Acker, Grant and Henry (1996) reported that for students with emotional and behavioural disorders, the rates of correct oral responses were approximately 0.84 to 1.2 per hour. In addition, teachers praised these students' correct responses at a rate of 0.68. This means that these students with behavioural issues in the classroom received teacher's praise for correct responses at a rate of only four to five times per day. In addition, these researchers reported that teacher responses were five times higher for correct compliance responses to teacher directions than for correct responses to academic tasks. Several other studies reported that students who exhibit problem behaviour in the classroom have low academic achievement scores compared with their peers, who by and large cooperate in the classroom. In effect, there is a clear correlation between academic underachievement and problem behaviour. A cyclical relationship exists between the impact of problem behaviour in the classroom and the kind of instruction that is delivered to students who display task avoidant and disruptive behaviour. Ample documentation shows that task avoidance behaviour in classrooms and schools has been a long-standing behaviour of concern. For many years, it has been one of the most common reasons, if not the most common reason, for office referrals and is listed high on teacher reports as a demanding behavioural challenge. Academic task avoidance not only causes classroom disruption but can also have many negative effects throughout the student's life in school, at home, and in the community. It is vital for educators and service providers to take urgent measures to more fully understand the nature of academic task avoidance and to take more effective steps to change this very challenging, pervasive, and disturbing behaviour.

Skiba, Peterson and Williams (1997) conducted an extensive analysis of office referral data on the prevalence of task avoidance in schools of 19 middle schools serving 11,000 students from a large Midwestern city. These office referrals, numbering 17,045 across the schools, were coded by behaviours warranting an office referral. Results indicated that the most common reason for referrals was academic task avoidance (27.6%), representing more than double other common reasons, including conduct interference (12.8 %), disrespect (10.7%), and fighting (10.7%), respectively. In interviews with middle school students, Dowson and McInerney (2001) established a range of achievement goals that these students held. The interviews also provided excellent examples of the emotions felt by students. Students' academic task avoidance orientations were associated with feelings of laziness, boredom, inertia, and even anger. Regarding a difficult task, one student explains, "If it's [the work] really hard, then I definitely don't feel like doing it". Another student exemplifies a sense of apathy regarding the work in the sense of not caring if "I can do something or not". And another student who identifies his own sense of competence in using effective approaches to studying as they have worked in the past, explains "I know reading over my notes helps me, but I couldn't be bothered". Middle school students can verbalize their emotions in relation to classroom experiences. Similarly, they can relate the emotions to their own behavioural outcomes.The most often researched self-perceptions of students are a sense of competenceand a sense of control. Bandura's (1997) cited in Seifert & O'Keefe, (2001) self-efficacy theory suggests that the degree to which a student feels confident will determine the quality of engagement in a task with higher level of self-efficacy correlates with higher level of task avoidance. A sense of personal control is also correlated with self-regulated behaviour (Sloan, 2007).

Through questionnaires administered to high-school students, they found an inverse relation between students' self-perception of low ability level and a higher likelihood of academic task avoidance. Comparison with others in the classroom can foster low self-perceptions of ability, which in turn can lead to task avoidance strategies. Interestingly, their research also found an inverse relation between task avoidance and satisfaction with school. Seifert and O'Keefe's (2001) research also discussed the link between emotions and self-perceptions. The authors suggest that students pursuing academic task avoidance goals may feel less competent than other students who are more likely to make external attributions and often perceive their task as lacking meaning. Seifert and O'Keefe identify specific student emotions that correlate with academic task avoidance. Students who perceive little control or competence may avoid exerting effort because they believe they can't do the task or because they wish to avoid a sense of humiliation and shame associated with failure. On the other hand, some students seen themselves as capable of doing the work but perceive no reason for doing it. That is, the students see themselves as capable, but find little meaning in the task. Consequently, they put forth little effort because they see no reason for doing it. Seifert (2004) suggests that context; including tasks and task conditions elicit emotional responses, which in turn guide students' behaviour.

Seifert and O'Keefe (2001) administered a motivational survey to high school students. Like Assor, Kaplan and Roth's findings on the importance of teachers' behaviours that foster relevance, Seifert and O'Keefe found that perceived meaning, the students' perception of the reason for completing a task, was related to the motivation of students. The researchers found that even if a student perceived himself to be competent, if his task was not relevant or meaningful then the student was inclined to pursue task avoidance goals. On

the other hand, if a student felt confident and had a sense of control over her/her learning, then perceived meaning was related to pursuit of a learning goal.

Ultimately, Seifert and O'Keefe (2001) revealed that the psychological environment created by the teacher is a critical factor in students' motivation because the environment influences how students think and feel which, in turn, influences how they behave. Teachers who employ interesting, novel and meaningful tasks and emphasize the process of learning are more likely to have students who are willing to engage cognitively with the work. Seifert and O'Keefe (2001) designed a classroom intervention project to show how various instructional practices can affect students' goals, perceived competence and strategy use in reading and writing. An original assessment of reading and writing teaching practices of eight elementary school teachers found that most assignments focused on individual skills, factual recall and high teacher control. The teachers in the intervention used tasks that provided their students with more opportunities to read and write lengthy prose, work closely with other students and focus on tasks for extended periods of time. The authors looked at the effect of the instructional change on students' achievement goal orientations. One interesting finding directly related to the impact of teachers' practices is that complex reading and writing assignments yielded a significant decrease in performance goals in all students. And most interesting is a significant decrease in work-avoidance goals was found among low achieving students. This research indicates that teachers' practices can influence students' goals. Within goal theory, researchers have identified three different types of achievement-related goals: mastery, performance, and task avoidance. These goals have been related to students' behaviour. It has been suggested that achievement goals might be influenced by students' affect and self-perceptions, as well as by the classroom context. As

stated earlier researchers have proposed four reasons for the task avoidance goal orientation: failure-avoidant, learned helpless, passive-aggressive, and see no reason. Yet, the research that has been conducted by educational psychologists regarding task avoidance goals is primarily based on correlational data, theoretical models, and students' self-reports. No one has looked to teachers for information. It is possible that teachers who identify task avoidance in their students may concur with one of the previously cited reasons for such behaviour. Or perhaps, teachers have different beliefs and explanations for task avoidance. This is important to know because teachers are the direct observers of students, and their beliefs influence their practice.

Dowson and Dennis (2001) study onpsychological parameters of students' social and work avoidance goals: a qualitative investigation identifies and describes the psychological parameters of middle school Students social and work avoidance goals Data were collected from 86 students during 114 interviews and 24 structured observation periods. Inductive content analyses of the interview and observation data identified 8 distinct motivational goals (purposes) that the sample of middle school students espoused for their academic achievement. However, this analysis focuses on social and work avoidance goals that have not been widely explored in the literature to date. The analysis also identifies the structure of these goals in terms of their component academic behaviours, affect, and cognitions. The study is significant because it extends and deepens descriptions of the distinct social and work avoidance goals that students may espouse and identifies key psychological components of these goals.

Through student questionnaires, Assor, Kaplan and Roth (2002) gathered information on students' perceptions of autonomy-enhancing and suppressing teacher

behaviours. Autonomy-enhancing behaviour (e.g., fostering relevance, providing choice, and allowing criticism and encouraging independent thinking) is action that helps students develop and realize their personal goals and interests. Autonomy-suppressing behaviour (e.g., suppressing criticism and independent opinions, intruding-intervening in ongoing behavioural sequences, and forcing meaningless and uninteresting activities) is action that interferes with the realization of the students' personal goals and interests. The only autonomy-supportive behaviour that was significantly related to both feelings and engagement was teacher behaviours aimed at "fostering relevance." An example of fostering relevance is teachers' efforts to explain how classroom tasks relate to students' personal goals. The only autonomy-suppressing behaviour that was related to both negative feelings and engagement was "suppressing criticism." Students felt more negative and were less engaged when teachers did not permit dissenting opinions or ideas. This provides support for the notion that teachers' behaviours are related to student engagement.

Some previous research findings indicate that goal orientation reflects stable personality differences, such that goals do not change in different situations. On the other hand, Linnenbrink and Pintrich (2002) suggest that students' goals may change dependent on a variety of both personal and contextual factors. While one situation or task may elicit a mastery goal, another may elicit a performance goal; likewise, a student may approach or avoid the goal dependent upon the circumstances. Therefore, an important question to ask concerning task avoidance is: Why might students be task avoidant? Two possible answers are (a) the student's affect and self-perceptions and (b) the school environment and classroom context. In the research, student affection correlates with goals in defining moods and emotions. The researchers suggest that moods and emotions differ in terms of intensity

and duration. Moods are considered to be longer lasting, whereas emotions consist of short episodes. Moods refer to a general affective state, whereas emotions are affective states due to a specific situation or circumstance. As emotions reoccur over time, it is possible that they take shape as a prevailing mood. Affect is generally considered a broader category of affective states that encompass both moods and emotions.

Sutherland, Wehby and Yoder (2002) reported that academic deficits of students are further exacerbated by the modified instruction they receive, which is brought about by their disruptive classroom behaviour.

Turner, Midgley, Meyer, Gheen, Eric, Anderman, Yongjin and Patrick (2002) on their multi-methods study on classroom environment and students' reports of avoidance strategies in mathematics, report the relation between the learning environment (students' perceptions of the classroom goal structure and teachers' instructional discourse) and students' reported use of avoidance strategies (self- handicapping, avoidance of help seeking) and preference to avoid novelty in mathematics was examined. Quantitative analyses indicated that students' reports of avoidance behaviours varied significantly among classrooms. A perceived emphasis on mastery goals in the classroom was positively related to lower reports of avoidance. Qualitative analyses revealed that teachers in high-mastery/low-avoidance and low-mastery/high-avoidance classrooms used distinctively different patterns of instructional and motivational discourse. High incidence of motivational support was uniquely characteristic of high-mastery/ low-avoidance classrooms, suggesting that mastery goals may include an affective component. Implications of the results for both theory and practice are discussed.

Turner, Meyer, Midgley and Patrick (2003) examined the relations between teacher discourses and Grade six student reports of affect and cognitive engagement in two mathematics classrooms. Supportive instructional discourse and less supportive instructional discourse were associated with different students' reports. Supportive instructional discourse that focused on student understanding was associated with student reports of self-regulation and positive coping behaviours. On the other hand, students in a classroom with less supportive motivational discourse reported more negative affect and self-handicapping behaviours. The authors suggest that the "features of the classroom context, such as motivational support might be related to student outcomes".

Assor, Kaplan, Kanat-Maymon and Roth (2005) take the previous research a step further and look at one specific type of teacher behaviour, directly controlling teacher behaviours (DCTB), "such as giving frequent directives, interfering with children's preferred pace of learning and not allowing critical and independent opinions" and how this behaviour relates with specific student motivation and engagement. The creation of path-models indicates that a-motivation is closely intertwined with the affective emotions of anger and anxiety.

Although much of the previous research focused on the behaviours related to mastery and performance goals, Urdan and Mestas (2006) also looked at students with task avoidance goals. The researchers tested the relations among individual differences, goal-orientation and cognitive engagement for Grade 5 and 6 science students. They found that "cognitive engagement patterns related most directly to students' goal orientations". They reported a correlation between students' expression of concern about their ability level and the use of effort-minimizing strategies. The authors suggest that this finding supports the

previously purported idea that students reduce effort as a defensive strategy when they are concerned about their abilities.

Jessica, Cynthia and Boyd (2014) on their study on addressing academic task avoidance in middle school students: academic behaviour check-in/check-out. The multitier prevention systems consist of a continuum of intervention to address the needs of all students. Within such system, Tier I support are in place for all students and are designed to enhance pro-social (social behaviour interventions) and academic (instructional interventions) skills. Tier II intervention supplement the Tier I intervention for students who have not responded to Tier I supports and are designed to prevent the development of serious behavioural challenges or academic failure. This study evaluated a Tier II intervention for students whose problem behaviour was maintained by avoidance of instruction activities. We evaluated effects of academic behaviour check-in/check-out (ABC) on disruptive behaviour, work completion, and homework completion using an ABAB reversal design across three typically developing middle school students, ABC resulted in reductions in problem behaviour and increases in work completion and homework accuracy.

Similarly, Wehby and Cooley (2006) found that (1) following teacher directions still remained a high-priority standard expectation of teachers for their students across grade levels and that (2) failure to meet these expectations resulted in several serious negative outcomes within and beyond school settings, especially regarding academic underachievement and social relationship issues. Pediatricians and service providers have reported over many years that task avoidance of young children is a recurring serious problem for parents.

Meridith's (2007) study investigated the work avoidance in middle school as perceived by teachers' perspectives**.** Teachers were individually interviewed. Using a Grounded Theory Approach, the interview transcripts were coded and analyzed. The teachers commonly characterized students who avoid work as lacking effort or actively avoiding work, expressing a broad range of emotions (anger, embarrassment, and negative affect) and having little or incompetent social interactions with peers and adults. The teachers reported several reasons why students avoid work including task/workload characteristics, motivational traits, peers, home and school/teacher. These findings suggest that work avoidance may have been previously oversimplified and the construct may include a wider variety of student characteristics and reasons for the behaviours.

Mike and Becker (2007) examined approach and avoidance in fear of spiders in which participants respond to pictures by pulling a joystick towards themselves or by pushing it away from themselves. For spider fearful, this stimulus–response assignment is either compatible (push spiders away) or incompatible (pull spiders closer). Specific compatibility effects were found: compared to non-anxious controls and control pictures, highly spider fearful participants responded to spider pictures more quickly by pushing than by pulling, even when picture contents was task-irrelevant. Moreover, compatibility effects predicted fear-related behavior independently of questionnaires. Potential applications, extensions, and limitations of the findings are discussed.

Sloan's (2007) research on teachers' perspectives of students' academic task avoidance reveal that the characteristics teachers use to describe students who avoid task are of five main categories; effort, emotions, competence, interactions and reputation.

According to Sloan (2007) the teachers described the behaviour, emotions, and relationships as task avoidance characteristics students have in the classroom.

Some students were seen as not putting forward positive effort regarding task; in essence, these students were described as lacking effort. On the other hand, some students were described as putting forward a lot of effort in the process of minimizing and avoiding task. The students who were characterized as minimizing their amount of effort as exhibiting idleness Students described as having a lack of effort often were without school materials and their teachers felt their grades were not reflective of their ability.

The students often make great effort in actively avoiding task. Teachers often cited students who do not study for tests and quizzes or do not complete home task or do not complete class task. While these students may participate in some school related tasks, the following were noted to be commonly avoided: higher order thinking, creating illustrations, tasks that are not personally connected to the student, any form of evaluation, and long-term projects. In some of the more severe cases of active avoidance, students do not participate in school at all by frequently being tardy and absent.

Teachers identified emotions, or affective states due to a specific situation or circumstances that are characteristic of students who avoid task. The most commonly identified type of emotion is anger. Teachers frequently reported that the anger expressed by students is directed towards them, the teacher. Some examples of anger included students who are frustrated (Very frustrated, because he seemed like he knew what he had to do to improve, but he couldn't make himself do it. He does express his frustration, both in anger and in tears, but he's rarely humorous about it. He's pretty serious about it.), hostile and defiant (They become angrier and it becomes a situation I try to avoid for the most part.). On

the other hand, some students were described as anxious if confronted by a teacher or a peer (He gets very nervous if you talk to him individually about what's happening). Students also express a sense of embarrassment for not completing their task, some are even fearful of being made fun of by their peers (He's trying to avoid having attention drawn upon himself). Other students were reported to have a negative effect, being in a "bad mood," or often upset and seeming "depressed" or "very sad about their existence" according to the teachers.

Inability to complete a task is another characteristic of some students who avoid task. Some examples of competence issues include being an English Language learner, being a very low functioning reader (He has basically no writing skills whatsoever and he has some reading skills, but a hard time even with letter recognition in a lot of cases and gets overwhelmed while trying to read.) and having the ability to understand concepts, but being unable to acquire new skills.

Students who are academic task avoidant are frequently identified as either lacking or incompetent in social interactions with peers and adults. Other students ignore task avoidant students so that they will not be affected by their behaviour (Sloan, 2007). Task avoidant students may be seen as not fitting in or not part of the social network of students. Teachers reported them as introverted, "withdrawn or a little angry." They may be detached from peers (He doesn't play with others; he doesn't fool around with others. He's kind of a loner) and from adults.

On the other hand, other task avoidant students are more actively in conflict withtheir peers or teachers. These students may express their dislike for the teacher and the teacher's practices (He does not like the way I run my class and has made that very clear). Task

avoidant students may be the target of negative reaction from other students (I think he becomes the butt of jokes because he does this.).

Reputation: Teachers frequently noted that other students often perceive task avoidant students as having a long-standing reputation for behaving this way. Several teachers reported that other students see task avoidant students as annoying because they are disruptive to the class (When this person is having a bad day and causes trouble in this class and the next class and the next class, the kids react negatively as well, because they just have enough.). On the other hand, sometimes students feel bad for task avoidant students and may even make-up the student's task for them, specifically in a group-task situation.

All the characteristics identified by the teachers in Sloan in 2007 are major indicator of students' academic task avoidance. One subcategory of student characteristic is, not putting forward any effort or lacking effort. The other subcategory includes a description of students who make great effort to avoid academic task. Some task avoidant students may only exhibit one type of effort-related behaviours, other students may at times display a lack of effort and at other times actively avoid task. This overlap in characteristics is also apparent descriptions of student emotions. Some students lack emotions and some expressing very intense emotions. The same student may at times be apathetic while at other times express frustration. This is an interesting finding because it supports the notion that a variety of factors (task, task difficulty and social situation) affect students' academic task avoidance. While some teachers identified competence issues as a characteristic of students who avoid academic task, it was not as frequently identified as other characteristics. This may be because of the nature of the interview questions. Teachers were asked to identify and discuss in detail their top three task avoiders. Teachers may not perceive

competence issues to be the most striking characteristic of students who avoid task (Sloan, 2007).

In the classroom, each student is part of a broader social setting. The task avoidant students often have social interactions with peers and teachers that are different from those of students not characterized as task avoidant. Academic task avoidant students either avoiding social interaction or display incompetent social interactions. This raises an important issue regarding the social aspects of academic task avoidance. Academic task avoidance may contribute to social problems or perhaps social problems may contribute to academic task avoidance.

Researchers have proposed four reasons for the academic task avoidance goal orientation: failure-avoidant, learned helpless, passive-aggressive, and see no reason (Seifert, 2004). The teachers' explanations as to why students are academic task avoidant in Sloan's (2007) study do not fit neatly into these categories. The teachers identified a wide variety of factors that affect task performance in the classroom (task/workload characteristics, motivational traits, peers, home and school/teachers). Although some teachers reported that students who are task avoidant are consistently task avoidant across all classes and all tasks, these same teachers were still able to highlight different circumstances that may result in students doing or not doing task. This finding indicates that complete task avoidance is not the sole goal of students. The previously suggested reasons for task avoidance (Seifert, 2004) neatly portray four different types of academic task avoidant students. These descriptions may oversimplify the reality of each individual student.

Although there is a common perception that teachers blame student's families and homes for task avoidance in the classroom, the findings do not indicate this to be the

teachers' most prominent explanation. In fact, more often, teachers reported a variety of factors in the school environment to be the reason why students avoid task. Teachers suggested a wide variety of workload related reasons for why students avoid task. Students have task related preferences and chose to complete or not complete task dependent on the type of task (Sloan, 2007).

Teachers also highlighted the serious implications of peer influence on academic task avoidance in school. The data indicates that students avoid academic task as a way to fit in with their peers. Academic task avoidance can be an active means to impress peers, or students avoid task as a way to avoid criticism from peers. A central theme that teachers reported is seen in the recurrence of social motivational factors surrounding task avoidance. Three out of the five main perceptions teachers have as to why students avoid task are related to social relationships in school. The reasons teachers used to explain why students avoid task fall into five main categories according to Sloan (2007) are: task characteristics, motivational traits, peers, home and school/teachers' influence.

Task characteristics: In general, the teachers suggested either that the behaviours of task avoidant students are consistent across all subjects (It's across the board…There's a pattern of behaviour. More times than not, what's happening in one class are almost always occurring in every other class) or that the behaviours were dependent upon a variety of task characteristics. Some of these characteristics that students specifically avoid include specific subject matter (Areas which require a lot of reading), types of tasks (There are some that don't like independent task.) and the difficulty of the task, whether it be the length of the task or the higher-order, critical thinking nature of the task (Any of the Questions that go beyond factual answer, any higher level questions, especially when written).

Motivational traits: Teachers also identified motivational traits of students who avoid tasks. Teachers said that some students are "lazy" and they "believe that they don't have to task hard to achieve" (They're looking for ways of not doing stuff but not being held accountable). One teacher suggested that during certain times of the year students are very busy with other activities and therefore don't complete task. Other students are motivated not to complete task in an effort to challenge their teacher, who is seen as an authority figure (It relates not only to school task…but also how much I can talk back?). Several teachers suggested that some students are "frustrated with the task" and may not feel competent completing the task so they avoid it all together (It had a lot to do with the feeling that they couldn't do the task and being used to not being able to do the task.).

Peers Influence: Teachers identified that peers can be very influential on students in school. Some students avoid task as a way to fit into and impress a peer group. These students may have negative peer influences that distract them from completing task (He chooses to get involved in some outside influences that unfortunately steer him in the wrong direction as opposed to the right direction) or they may be a part of a "little crew" of students that all avoid task. There were a whole bunch of boys that kind of played off each other…. He and one other were capable and could do the task and sometimes really wanted to, but then two of the boys really couldn't care less and were trying to make things difficult and they kind of got lumped all together. Some students also avoid task in order to "put on a show for other students" and attract their attention (It was very loud and very center stage. It was not something you could downplay. And the one who's the 'hot dog,' you now, kind of navigating with a little bit more 'I'm going to call the shots' tends to start wearing the crown in middle school.).

On the other hand, some students choose not to complete task in order to avoid negative peer perceptions (They don't pick on him particularly, but I think he's afraid they're going to if it comes out that he's so low functioning.). Some students do not want to be associated with students who are unlike by their classmates and avoid tasking with unpopular peers (He's more resistant if I ask them to task together on something.). Teachers reported that some students don't like to stand in front of peers to present material and other students don't like to share their personal ideas in class. These two activities put students in the spotlight for other students to be critical and judge them.

Home/Parent Influence: Several teachers suggested that students avoid task because of their home environment. Teachers said that conflict at home could be overwhelming and distracting to students in middle school, leading them to be unfocused at school. Other teachers suggested that students do not complete task because there is not enough parental accountability for their actions (The parents don't demand enough of them.). Students also may not complete task because their parents are not involved (Home doesn't really have enough guidance to try to keep him on the straight and narrow.) or do not establish consequences for incomplete task.

School/Teacher Influence: The final reason teachers gave for why students do not complete task is because of the school environment or student teacher fit. Teachers reported that student task completion could depend on whether the student responds positively to a specific teacher's personality (This student was very verbal that she hated me. Sometimes you'll find a student who…personality wise will click more with one teacher. And occasionally there is one class the student will excel in just because of the personality aspect) and whether the teacher gives the student enough support.

Over the past several years, there has been considerable focus on taking steps to ensure that schools are positive, welcoming, and safe environments for learning. It is very evident in research on the kinds of problem behaviours schools face that academic task avoidance and its analogues (disobedience, defiance, insubordination, and oppositional behaviour) are highly prevalent and are of serious concern to educators.

Spaulding and Colleagues (2008) reviewed an extensive database of office discipline referrals from SWIS encompassing 1,709 schools from 43 states, Grades 1–12, for the 2005–2006 school years. Their analyses on highest ranking reasons for referral showed the following: Grades 1–5, fighting at 32.4%, defiance at 29%, and inappropriate language at 10.7%. In the middle schools, Grades 6–8, defiance ranked first at 31.2%, with disruption a distant second at 18.2%. For the high schools, Grades 9–12, defiance ranked first at 24.2%, tardiness for class at 24.0%, and truancy at 21.3%. These studies have indicated that academic task avoidance in the classroom, for some time now, has been the overall highest ranking reason for office discipline referrals for Grades 1–12. It is safe to conclude that academic task avoidance in the classroom is a highly prevalent ongoing behaviour of great concern in schools.

George, George,Jari-Eric and Rauno (2009) examined the importance of children's classroom activity, defined as task-focused versus task-avoidance behaviour, on different literacy outcomes in an orthographically consistent language. Greek children (n = 95) were tested in kindergarten, grade 1, and grade 2 on measures of general cognitive ability, phonological awareness, RAN, and short-term memory. The teachers of the children also assessed their task-focused behaviour. No word decoding, reading fluency, spelling, and reading comprehension measures were administered in grades 2 and 3. The results indicated

that task-focused behavior accounted for unique variance in spelling and reading comprehension, even after controlling for the effects of autoregressor, non-verbal IQ, and phonological processing.

Anke, Becker and Rinck's (2010) study associated fear in children to tendency to avoid situations related. In this study, the Approach-Avoidance Task (AAT) was evaluated as a test of automatic behavioural avoidance tendencies in children. A sample of 195 children aged between 9 and 12 years completed an AAT, a Behavioural Assessment Task (BAT), and two spider fear questionnaires. The results indicate that all children showed an automatic avoidance tendency in response to spider pictures, but not pictures of butterflies or neutral pictures. Girls who reported more fear of spiders on self-reports and behaved more anxiously during the BAT also showed a greater avoidance tendency in the AAT. These relationships were absent in boys.

Hirvonen, Tolvanen, Aunola and Nurmi, (2012) examined the developmental dynamics of task-avoidance behaviour and math performance in kindergarten and elementary school. Besides cognitive factors, children's learning at school may be influenced by more dynamicphenomena, such as motivation and achievement-related task-avoidance behaviour. The presentstudy examined the developmental dynamics of task-avoidance behaviour and mathperformance from kindergarten to Grade 4. A total of 225 children were tested for theirarithmetic skills in kindergarten and in Grades 1, 2, and 4 of elementary school. Children's task-avoidance behaviour in learning situations was rated by their teachers. The results of latentgrowth curve analyses showed that math performance and task-avoidance behaviour develop intandem: an increase in task-avoidance behaviour was

related to less improvement in mathperformance. Furthermore, a high initial level of task-avoidance behaviour predicted lessimprovement and slower improvement in math later on.

Andre, Alexandra, Michelle and Georg (2014) in their study on acquisition of behavioural avoidance task-irrelevant conditioned stimuli that trigger costly decisions, relieved that individuals avoid stimuli which are associated with aversive experience to preserve safety. However, behavioural avoidance also causes impairments and prevents the individual from attaining positive rewards. Little is known about the link between fear acquisition and the development of behavioural avoidance in the presence of potential rewards. Therefore, two experiments investigated the impact of fear conditioning on a subsequent gambling task. In an experimental group (n = 30) advantageous choices (higher reward probability) were linked to a fear-relevant stimulus that was associated with an aversive unconditioned stimulus (US) during fear conditioning (conditioned stimulus, CS). A disadvantageous choice (lower reward probability) was, however, linked to a safe stimulus that was never associated with the US (CS). In a control group (n = 25), fear conditioning was followed by a similar gambling task with novel stimuli. A second experiment focused on individual predictors of avoidance decisions (n = 81). Compared with the control group, individuals in the experimental groups avoided the advantageous CS choice despite fewer gains. The predictor analysis further clarified that avoidant decisions were pronounced in highly trait anxious participants who exhibited higher fear responses. On the other hand, findings also indicated a reduction in absolute avoidance across the task. Combined, these findings demonstrate that fear conditioning can lead to avoidance decision making, especially in vulnerable individuals. The resulting costs parallel impairments caused by behavioural avoidance. Such an emotional decision-making style may be a link

between aversive experience and the development of habitual pathological avoidance. Introducing rewards for approach, however, may counteract avoidance decisions.

Jessica, Cynitha and Boyd's (2014) study address the task avoidance in middle school students: academic behaviour check-in/check-out explain that multitier prevention systems consist of a continuum of intervention to address the needs of all students. Tier I supports are in place for all students and are designed to enhance prosocial (social behaviour intervention) and academic (instructional interventions) skills. Tier II interventions supplement the Tier I intervention for students who have not responded to Tier I supports are designed to prevent the development of serious behavioural challenges or academic failure. This study evaluated a Tier II intervention for the students whose problem behaviour was maintained by avoidance of instructional activities. The study evaluated effects of academic behaviour check-in/check-out (ABC) on disruptive, work completion, and homework completion using an ABAB reversal design. Across three typically developing middle school students, ABC resulted in reduction in problem behaviour and increases in work completion and homework accuracy.

Ashley (2015) embarked on study on academic task avoidance and achievement as predictors of peer status during the early primary school years. This study examined the developmental cascade of task avoidance, academic achievement, and peer acceptance using a sample of 545 (311 boys, 234 girls) Finnish students in the 1st through 4th grade (M = 7.67, SD = 0.31 years old at the outset). Results showed that early task avoidance leads to a decline in achievement over time, which in turn leads to a decline in peer acceptance over time. In addition, low achievement leads to increases in task avoidance, which lead to declines in peer acceptance. The initial achievement cascade fit the model significantly

better than did the initial achievement model. Results were similar for math and reading achievement. Control variables that included characteristics of the child as well as the child's school experience were added to the final model to enhance findings. Inclusion of covariates did not produce changes in the pattern of results. This study illustrates how peer acceptance can be affected by seemingly unrelated child behaviours that are exhibited years prior. Academic motivation problems should be identified and resolved early in schooling so that problems in peer acceptance do not arise later on. Given the importance of peer acceptance on a child's well-being, these findings have important implications for parents, teachers and practitioners.

2.7 Summary

The review recognizes that academic task avoidance is both cognitive and behavioural in nature. Cognitive therapy has a number of similarities to both rational emotive behaviour therapy and behaviour therapy (Beck & Weishaar, 2008).Person-centred approach focuses on the client being able to develop a greater understanding of self in an environment which allows the client to resolve his or her own problems without direct intervention by the therapist. Academic task avoidance can take place through the interaction of the learner with significant others in his environment.

The review further reveals the crucial roles which observation and imitation play in the learning process. This behaviour of task avoidance can also be acquired through this process. Almost any learning outcome that results from direct experience can also come about on a vicarious basis through observation and then imitation of other people's behaviour. The phobic responses and other emotional experience can be attributed to the

processes of observation, verbal instruction and imitation of other peoples' behaviour. The phobic responses task avoidance of the subjects can be extinguished.

The review also considered some empirical studies that are related to the present study. Many of the studies reviewed reveal the efficiency of brainstorming and thought-stopping techniques in the treatment of major behaviour therapy for anxiety disorders and the procedures have been used successfully with individuals who have a host of stress-related and other problems such as anger, asthma, chronic pain, motion sickness, nightmares, alcoholism, hypertension, fear-and anxiety-related problems. The two techniques have not been fully utilized for the treatment of academic task avoidance.

From the literature reviewed, no work of this nature has been carried out in Niger State. Most of the research works were carried out outside Nigeria. Again, the treatments of academic task avoidance behaviour or problems through the use of brainstorming and thought-stopping modification techniques will be carried out among secondary schools especially the senior secondary school two students. The study attempts to provide empirical evidence of the effectivenessof brainstorming and thought-stopping techniques on academic task avoidance among secondary school students in Minna, Niger State of Nigeria.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter discusses research design, population of the study, sample size and sampling technique, instrumentation, scoring of the instrument, validity, reliability of the study and pilot study. Other issues discussed are related to variables in the study and the control of extraneous variables. This chapter also discusses the procedure for data collection, procedures for the treatment, treatment sessions and procedure for data analysis.

3.2 Research Design

The quasi-experimental of pre-test, post-test and control group design was used for the study. The quasi-experimental design involves the manipulation of one or more independent variables, but there was no random assignment of subjects to conditions. The design for this study consisted of four groups (two experimental groups and two control group). The first experimental group was exposed to brainstorming counselling techniques training, while the second group receives thought-stopping counselling techniques training. The third and fourth groups were the non-treatment groups (control groups) for the two experimental groups respectively. The selection of quasi-experimental design for this study was based on the fact that the design provide advantage of testing the results obtained from the post-test in order to analyze the effectiveness or otherwise of the treatment when compared with the control group. The procedure of pre-test, post-test and control group design is diagrammatically represented bellow:

Group	Pre-Test	Treatment	Post-Test
EG_1	O_1	X_1	O_2
EG_2	O_1	X_2	O_2
CG_3	O_1	X_0	O_2

Figure 1: Research Design Illustration

Where: EG_1 = Experimental Group One (Brainstorming Counselling Technique)

EG_2 = Experimental Group Two (Thought-Stopping Counselling Technique)

CG_3 = Control Groups

O_1 =Pre-Treatment for Brainstorming Counselling Technique, Thought-Stopping Counselling Techniqueand Control Groups

O_2 =Post-Treatment for Brainstorming Counselling Technique, Thought-Stopping Counselling Technique and Control Groups

X_1 = Treatment(Brainstorming Counselling Technique)

X_2 =Treatment(Thought-Stopping Counselling Technique)

X_0 = No -Treatment (Control Group)

3.3 Population of the Study

The population of the study comprised all senior secondary school two students identified with academic task avoidance behaviour in Minna metropolis, Niger State, Nigeria. Minna metropolis consists of two (2) local government areas: Bosso and Chanchaga local government areas. There are fifteen (15) senior secondary schools within the metropolis, with the population of four thousand one hundred and forty seven (4147) senior secondary two students comprising of 2476 males and 1671 females (Niger State Secondary Education Board, 2015). Populations of three hundred and twenty eight (328) senior secondary two students were identified by the school counsellors and class teachers as academic task avoidant in Minna metropolis, Niger State, Nigeria. An adopted inventory of

behavioural strategy rating scale (Aunolas, Nurmi, Parrila & Ouatsu-Arvilommi, 2000) was utilised for the identification.

Table 3.1: Population of the Study

S/N	Local Government Area	No of Schools	Male	Female	Total
1	Bosso Local Government	10	182	54	236
2	Chanchaga Local Government	5	65	27	92
	TOTAL	15	247	81	328

Source: Results of school counsellors and class teachers completed behavioural strategy rating scale

3.4 Sample Size and Sampling Technique

The researcher used purposive sampling technique to select two senior secondary schools in the two local government areas in Minna metropolis. Purposive sampling process was also used to draw sample from the population of academic task-avoidance secondary school students in Minna metropolis. Purposive sampling technique was used to select twenty four (24) respondents in each school base on their characteristics of being task avoidance students, making total number of forty eight (48) respondents for the study. Twelve respondents (six males and six females) were randomly assigned for the treatment and control and control groups in each school respectively.

Table 3.2:Sample for the Study

S/N	School	Treatment Group	Number
1	DSS Maitunbi	Brainstorming Counselling	12
		Control Group	12
2	DSS Maikunkele	Thought-Stopping Counselling	12
		Control Group	12
	Total		48

3.5 Instrumentation

Two instruments were used for this study. These research instruments are Behavioural Strategy Rating Scale (BSRS)for the identification of students that are academic task avoidant and Academic Task-Avoidance Scale (ATAS) was administered for pre-test and post-test data collection.

i. Behavioural Strategy Rating Scale (BSRS)

The instrument adopted for the identification of academic task avoidant students was Behavioural Strategy Rating Scale (BSRS) by Aunolas, Nurmi, Parrila and Ouatsu-Arvilommi (2000). The instrument was designed for teacher rating of students with task-focused versus task-avoidant behaviour. The BSRS was preferred for this study because it was an efficient and effective instrument for evaluating students that exhibit task-focused versus task-avoidance. The adopted BSRS provide standard score for use in identifying student with academic task-focused versus task-avoidance. Teachers complete the BSRS to identify the student with academic task-avoidance. See detail in appendix 1.

ii. Academic Task-Avoidance Scale (ATAS)

The second research instrument for pre-test and post-test data collection was Academic Task-Avoidance Scale (ATAS) adapted from Rhodewalt (1990) Self-Handicapping Scale (SHS) and Ottenbreit and Dobson (2004) Cognitive and Behavioural Avoidance Scale (CBAS). ATAS has two main sections: section ‘A’collects information on the demographic variables while section ‘B’ contains 24 items on task-avoidance characteristics of self-reports scale that assessed both cognitive and behavioural.See detail in appendix 2.

3.5.1 Scoring of the Instrument

The Behavioural Strategy Rating Scale consisted of seven items rated on a scale ranging from 1 (*not at all*) to 5 (*to a great extent*). A composite score for the student's task-avoidant strategy was created by computing a mean of the five teacher-rated items. Academic task-avoidance scale has maximum scores of one hundred and twenty (120) points on each scale. Items on the ATAS instrument were rated using a 5-point Likert scale with higher scores indicating increased avoidance. The five-point Likert Scale was used to measure the subjects' responses as follows;

Not at all true for me = 1

Somewhat true for me = 2

Moderately true for me = 3

Very much true for me = 4

Extremely true for me = 5

3.5.2 Validation of Research Instruments

The validity of the instrument of Behavioural Strategy Rating Scale (BSRS) was established by the original developer. The BSRS consist of seven carefully worded items for identification of students with task avoidance behaviour. The developer paid attention to simultaneous procedure of measurement and achieved concurrent-construct, content and concurrent validity.The instrument Academic Task-Avoidance Scale (ATAS) was validated by the researcher's supervisors and two other lecturers in the Department of Education Psychology and Counselling of Ahmadu Bello University, Zaria to ensure that the instrument measure what it was supposed to measure. The researcher's supervisors and the lecturers' suggestions, corrections, observations and comments were affected to enrich the

instrument. Based on this, the face and content validity of the academic task-avoidance scale was established. Thus the instruments of BSRS and ATAC were produced in the lights of the experts' observations, opinions and corrections to ascertain their appropriateness for the study.

3.5.3 Pilot Study

Pilot study was conducted to test the internal consistency and reliability of the instruments for the study. To achieve this, the instrument Academic Task-Avoidance Scale (ATAS) was subjected to a test-retest exercise for empirical validation. A pilot testing was carried out at Bosso Senior Secondary School Minna.The pilot testing school was not among the schools that were sampled for the actual research. This school was considered adequate for the study because it is in the same geographical location and other features common with the schools that weresampled for the actual treatment to ascertain the standardization and the reliability of the instrument. The data collected was subjected to computer analysis using the Statistical Package for Social Sciences (SPSS) for the results.

3.5.4 Reliability of Research Instruments

The reliability result obtained after the pilot testing of BSRS with the purpose of comparing the locally obtained scores with the one obtained by the original developer using the test-retest method and Crombach Coefficient Alpha. BSRS test-retest reliability of 0.88 was obtained and internal reliability of the original developer was 0.92.The reliability of the instrument ATAS test-retest was used to ascertain the internal consistency of the items. A pilot testing of ATAS research instrument was conducted. Test-retest reliability process was applied to determine the consistency of academic task-avoidance scale. ATAS was administered twice with interval of two weeks for the same set of fifteen 15 respondents. The two scores were correlated using Pearson Moment Correlation coefficient statistical

tool. The reliability coefficient of alpha level of r-value of 0.91 was obtained. This indicated that the instrument is reliable.

3.6 Procedure for Data Collection

A letter of introduction was obtained from the Department of Education Psychology and Counselling of Ahmadu Bello University Zaria, to undertake the study. Copy of the letter was presented to each of the principal of the selected schools for the research with the approval of the two principals. The researcher selected one research assistant among the school counsellors per school. The two research assistants were trained by the researcher on the research procedures and on the administration of the research instrument. With the assistance of class teachers and research assistant in each school the researcher was able to select students with academic task avoidance with the application of Behavioural Strategy Rating Scale (BSRS). Those score from 17-35 counted as students without academic task avoidance, while those score from 7-16 consider to be student withacademic task avoidance. Then after the grouping of selected students, the researcher administered Academic Task-Avoidance Scale (ATAS) as pre-test instrument to them followed by treatment sections for the treatment groups for the period of eight weeks respectively and post-test was followed for them all.

3.7 Treatment Procedure

The study was carried out in three phases. The three phases' procedures were the pre-treatment phase, treatment phase and post-treatment phase.

Pre-Treatment Phase

The first which was the pre-treatment phase was meant for preliminary introductions, for diagnostic intake assessment and collection of baseline data on students' academic task

avoidance behaviour deficits and the pre-test administration of ATAS instrument will mark the starting point on the research. The description of the initial repeated measurement on the target behaviour (academic task avoidance) frequency before treatment was very essential. In this phase, the potential subjects for the study were assembled with official permission of the appropriate authorities after interactive session with the staff in the system. During the session, the researchers explained to the subjects what the research was all about. The researcher provided detailed information to the subjects about the research, and establishes rapport between the clients and the researcher. The instrument of the academic task-avoidance scale was administered on the forty eight (48) subjects assigned to two treatment groups and two control groups respectively.

The Treatment Phase

The second phase which was the treatment phase dealt with the actual manipulation of the treatment conditions will be carried out on a number of sessions in form of counselling for the treatment groups. After the diagnostic intake assessments phase the therapy procedure for the use of brainstorming counselling treatment and thought-stopping treatment were conducted at this phase. The treatment phase lasted for eight (8) weeks. The treatment sessions were conducted twice a week for a period of six (6) weeks consecutively on treatment group one and treatment group two subjects. The first week was slated for introduction of the programme with administration of ATAS instrument for the pre-test data while the eight week was scheduled for treatment therapeutic conclusion and for the administration of ATAS instrument for the post-test data.

Post-Treatment Phase

After the skills training intervention, while the determination of the extent of permanency of treatment effects was the focus in the assessment of outcome post-test scores, the ATAS instrument was re-administered to all the subjects in the four groups (two treatment groups and one control group) in order to ascertain the effects of the treatment. The subjects were prompted to terminate the image of fear inducing items and utilize the newly acquiredskills to arouse positive stimulus response on academic task avoidance. The items in the ATAS were re-administered to all the subjects. The post-test data was collected, scored and analysed to determine the effects or possible change in the groups when the data were statistically computed.

3.8 Treatment Sessions

The treatment sessions were conducted for eight weeks. Each session of the treatment package was two hours and twice in a week (Tuesdays and Thursdays). The packages were the two counselling interventions of brainstorming and though-stopping counselling technique to the subjects respectively.

Treatment Group 1: Brainstorming Counselling Sessions

Alex Osborn, the "father of brainstorming" used the term "brain-storm session" in the mid-1950s to describe his method of generating solutions to problems (Osborn, 1963).Brainstorming as a technique was first introduced by Alex Osborne in the 1930s. It is a method used in groups in order to support creative problem-solving, the generation of new ideas and greater acceptance of proposed solutions. The brainstorming technique is based on the capacity of the human brain to make association. The idea is to yield ideas or solution from the collective mind of multiple people. Osborn (1953) defines a brain storm session as: "To practice a conference techniques by which a group attempt to find a solution from a

specific problem by ammonizing all the ideas spontaneously contributed by its members". During a brainstorms session a group or individual applies a creative techniques in order to find a solution to a specific problem by fabricating list of ideas(Lehrer, 2013).

Brainstorming is a technique for developing creative solutions to problems. It works by focusing on a problem, and then deliberately coming up with as many deliberately unusual solutions as possible and by pushing the ideas as far as possible. During the brainstorming session there is no criticism of ideas - the idea is to open up as many possibilities as possible, and break down preconceptions about the limits of the problem. Once this has been done, the results of the brainstorming session can be analysed and the best solutions can be explored by further brainstorming.

Osborn noted that brainstorming should address a specific question, he viewed that sessions addressing multiple questions were inefficient.Further, the problem must require the generation of ideas rather than judgment; he uses examples such as generating possible names for a product as proper brainstorming material, whereas analytical judgments such as whether or not to marry do not have any need for brainstorming. Osborn envisioned groups of around 12 participants, including both experts and novices. Participants are encouraged to provide wild and unexpected answers. Ideas receive no criticism or discussion. The group simply provides ideas that might lead to a solution and apply no analytical judgment as to the feasibility. The judgments are reserved for a later date (Osborn, 1963).

Osborn (1963) proposed the optimum size of this composition, about a dozen, but advocates for an odd number[1]. This is to ensure there is the availability of a majority, thus avoiding the danger of creating two equal sized groups that can obstruct decision-making conferences. Despites the fact that a dozen group member does not sound that larger, the

results of these size groups can still be overwhelming (Osborn, 1953). The rules of the brainstorming technique are to enhance the creation of new ideas.

Four Basic Rules as described by Osborn

1. No criticism is allowed during brainstorming. (Evaluation of ideas after the brainstorming)
2. Quantity is important. The more ideas the better. (Don't worry about speaking out only "good" ideas.)
3. Wildness is good. Crazy ideas are welcome. (Many times the craziest ideas turn out to be the best ones)
4. Combining other ideas and taking another person's ideas a step further or using them for yet another idea is good.

Variations of brainstorming techniques

Nominal group technique

Nominal group technique is a type of brainstorming that introduces structure to the process. It is useful in ensuring that all participants have an equal say and can be used to generate a ranked list of ideas. Typically each participant is asked to write down their ideas. Then the moderatorasks each participant in turn to express one of their ideas. The moderator writes down each idea on the flip chart. Then each participant copies the group's final list on a blank page giving each idea a score. The pages are collected from each participant and the scores summed, providing a rank-ordered list(DeSanctis, Poole & Zigurs 2008).

Group passing technique

Each person in a circular group writes down one idea, and then passes their piece of paper to the next person in a clockwise direction, who adds some thoughts. This is repeated

until everybody gets their original piece of paper back. By this time, it is likely that the group will have created some powerful ideas. A popular alternative to this technique is to create an "Idea Book" and post a distribution list or routing slip to the front of the book. On the inside cover (or first page) is the problem definition statement. The first person to receive the book lists his/her ideas and then routes the book to the next person on the distribution list. The second person can log new ideas or add to the ideas of the previous person. This continues until the distribution list is exhausted. A follow-up "read out" meeting is then held to discuss the ideas logged in the book. This technique does take longer, but allows individual thought whenever the person has a spare minute to think deeply about the problem(Michinov, 2012).

Team Idea Mapping Method

This method of brainstorming leverages the natural associative process of the brain. It improves collaboration, increases the quantity of ideas, and is designed so that all attendees participate and no ideas are rejected. The process starts with a well-defined topic. Each participant creates an individual brainstorm around the topic. All ideas are then merged into one large idea map. During this consolidation phase the participants discover a common understanding of the issues as they share the meanings behind their ideas. As the sharing takes place, the brain will naturally think of additional ideas based on the conversations. Those ideas are added to the large map as well. Now ideas are generated on both the individual and group levels. Once all ideas are captured, the group can prioritize and/or take action(Haddou, Camilleri & Zarate (2014).

Brainstorming is a tool used by teams to bring out the ideas of each individual and present them in an orderly fashion to the rest of the team. The key ingredient is to provide an

environment free of criticism for creative and unrestricted exploration of options or solutions. Brainstorming should help a team break free of old, ineffective ideas. This free-wheeling technique for generating ideas may produce some that seem half-baked, but it can lead to new and original solutions to problems. Some of the specific benefits of brainstorming according to (Ludy, 2008) include that it:

- Encourages creativity. It expands your thinking to include all aspects of a problem or a solution. You can identify a wide range of options.
- Rapidly produces a large number of ideas. By encouraging people to offer whatever ideas come to mind, it helps groups develop many ideas quickly.
- Equalizes involvement by all team members. It provides a non/judgmental environment that encourages everyone to offer ideas. All ideas are recorded.
- Fosters a sense of ownership. Having all members actively participate in the Brainstorming process fosters a sense of ownership in the topic discussed and in the resulting activities. When the people on a team contribute personally to the direction of a decision, they are more likely to support it.
- Provides input to other tools. You may want to affinitive the brainstormed ideas. And, if appropriate, you can work with the team to reduce the number of ideas by motivation. Brainstorming is useful when you want to generate a large number of ideas about issues to tackle, possible causes of problems, approaches to use, or actions to take.

Brainstorming with a group of people is a powerful technique. Brainstorming creates new ideas, solves problems, motivates and develops teams. Brainstorming motivates because it involves members of a team in bigger management issues, and it gets a team

working together. However, brainstorming is not simply a random activity. Brainstorming needs to be structured and it follows brainstorming rules. The brainstorming process is described below, for which you will need a flip-chart or alternative. This is crucial as brainstorming needs to involve the team, which means that everyone must be able to see what's happening. Brainstorming places a significant burden on the facilitator to manage the process, people's involvement and sensitivities, and then to manage the follow up actions. Use brainstorming well and you will see excellent results in improving the organization, performance, and developing the team.

Brainstorming process:

- Define and agree the objective.
- Brainstorm ideas and suggestions having agreed a time limit.
- Categorise/condense/combine/refine.
- Assess/analyse effects or results.
- Prioritise options/rank list as appropriate.
- Agree action and timescale.
- Control and monitor follow-up (Ozmen, 2006).

Planning and agreeing on brainstorming aimed at ensuring everyone participating in the brainstorm session understands and agrees with the aim of the session. Planning includes keeping the brainstorming objective simple and allocation of a time limit. This will enable counsellor keep, the random brainstorming activity under control and on track.

Manage the actual brainstorming activity:

Brainstorming enables people to suggest ideas at random. Counsellor is to encourage everyone to participate, to dismiss nothing, and to prevent others from pouring scorn on the

wilder suggestions (some of the best ideas are initially the daftest ones - added to which people won't participate if their suggestions are criticised). During the random collection of ideas the facilitator must record every suggestion on the flip-chart. Use sticky tape to hang the sheets around the walls. At the end of the time limit or when ideas have been exhausted, use different coloured pens to categorise, group, connect and link the random ideas. Condense and refine the ideas by making new headings or lists. You can diplomatically combine or include the weaker ideas within other themes to avoid dismissing or rejecting contributions. With the group, assess, evaluate and analyse the effects and validity of the ideas or the list. Develop and prioritise the ideas into a more finished list or set of actions or options.

Implement the actions agreed from the brainstorming

Agree what the next action will be. Agree a timescale, who's responsible. After the session the researcher circulates notes, monitor and give feedback. It's crucial to develop a clear and positive outcome, so that people feel their effort and contribution was worthwhile. When people see that their efforts have resulted in action and change, they will be motivated and keen to help again. To create more structured brainstorming activities which illustrate or address particular themes, methods, media, there is a helpful set of reference points on the team building games section. Unless you have special reasons for omitting control factors, ensure you retain the essence of the rules above, especially defining the task, stating clear timings, organising participants and materials, and managing the review and follow-up.

Steps for brainstorming session

1. Introduce the Session.Review the reason for the brainstorming session; discuss the ground rules, and the team member procedure to be used.

2. Warm-Up.Provide a warm up activity (5 to 10 minutes) that helps the group get used to the excitement possible in a brainstorming session. This activity should be on a neutral subject that will encourage participants to be creative. The leader may want to end the warm up by having the members discuss what could be said about the ideas that would prevent brainstorming from being successful.

3. Brainstorming.This is the creative part! Set a time limit of 20 to 25 minutes. Sometimes it is effective to call time and then allow 5 more minutes. Stop when there is still excitement do not force the group to work. Guide the group to generate as many ideas as possible. All suggestions made must be noted by the scribe. The scribe should use the speaker's own words. If the speaker's idea is long, the leader may need to summarize it and verify with the originator if the summary is correct.

4. Process the Ideas.Review ideas for clarification, making sure everyone understands each item. Similar ideas should be combined and grouped. At this point you can eliminate duplicate ideas and remove ideas. Next the group should agree on the criteria for evaluation. This could include: time allotments, talents and skills of the group, and more.

5. Establish a consensus if appropriate.Have the group vote on ten ideas to consider, then have the group vote on five of the ideas and tally the results to get a priority of feelings of the group. After refining ideas give each team member 100 points to allocate on the idea list. Team members can use their points however they wish. Have team members pick the five ideas they favour. Then ideas with the most picks can be prioritized (Ozmen, 2006).

Record ideason a chart pack as they are called out, or collect ideas written by team members on post. Display the ideas where everyone can see them. Having the words visible

to everyone at the same time avoids misinterpretation and duplication and helps stimulate creative thinking by other team members.

- When recording ideas, ensure that they are written down exactly as spoken by the team member. Don’t interpret.
- Try to generate as long a list as possible. Keep brainstorming until all participants have passed or the allotted time has expired.

Clarify each ideaafter all ideas have been presented, to ensure that all members have the same understanding of it. Pointing to each idea on the chart pack in turn, ask the participants whether they have any questions about its meaning. One may have to ask the contributor to explain the idea in a different way.

Eliminate duplications if two or more ideas appear to mean the same thing, counsellor should try to combine them or eliminate the duplicates. Before the counsellor wrap the ideas into a single item or eliminate any items on the list, all of those who contributed the similar ideas must agree that they mean the same thing. Otherwise, they remain as separate items.

Brainstorming can either be carried out by individuals, groups or both:Individual brainstorming tends to produce a wider range of ideas than group brainstorming, but tends not to develop the ideas as effectively, perhaps as individuals on their own run up against problems they cannot solve. Individuals are free to explore ideas in their own time without any fear of criticism, and without being dominated by other group members.Group brainstorming develops ideas more deeply and effectively, as when difficulties in the development of an idea by one person are reached, another person's creativity and experience can be used to break them down.Individual and group brainstorming can be mixed, perhaps by defining a problem, and then letting team members initially come up with

a wide range of possibly shallow solutions. These solutions could then be enhanced and developed by group brainstorming (Ozmen, 2006).

Osborn's "structured brainstorming" approach, with clear ground rules and procedures, contrasts with "unstructured brainstorming," where a group gets together to generate ideas without a facilitator or clear ground rules (Osborn,1963). Ideas that emerge from unstructured brainstorming are often criticized as they are generated and loud or dominant individuals can exert in ordinate influence on the quiet participants, thus limiting the number and type of ideas that participants are willing to express. This study will focus on structured group brainstorming where there is generally a facilitator and a set of explicit rules for participants.Group brainstorming can be very effective as it uses the experience and creativity of all members of the group. When individual members reach their limit on an idea, another member's creativity and experience can take the idea to the next stage. Therefore, group brainstorming tends to develop ideas in more depth than individual brainstorming(Kohn& Smith2011). To run a group brainstorming session effectively according to James (2006), the researcher does the following:

- Define the problem to be solved clearly, and lay out any criteria to be met;
- Keep the session focused on the problem;
- Ensure that no one criticizes or evaluates ideas during the session. Criticism introduces an element of risk for group members when putting forward an idea. This stifles creativity and cripples the free running nature of a good brainstorming session;

- Encourage an enthusiastic, uncritical attitude among members of the group. Try to get everyone to contribute and develop ideas, including the quietest members of the group;
- Let participants have fun brainstorming. Encourage them to come up with as many ideas as possible, from solidly practical ones to wildly impractical ones. Welcome creativity;
- Ensure that no train of thought is followed for too long;
- Encourage participants to develop other participant's ideas, or to use other ideas to create new ones ; and

Appoint one participant to note down ideas that come out of the session. A good way of doing this is to use a flip chart. This should be studied and evaluated after the session.The breakdown of the eight weeks brainstorming treatment is as follows:

Treatment Package for Treatment Group I Subjects

Week One: Initial Orientation and pre-test administration of ATAS instrument

Week Two: Plan in advance how to disrupt the unwanted academic task-avoidance.

Week Three: Practice the disruptive process mentally before having the real experience.

Week Four: Concretization on brainstorming counselling

Week Five: Review of assignment and general evaluation of the brainstorming counselling

Week Six: The session then proceeded with instruction in the use of alternate self-statement

Week Seven: Subjects-therapist interaction,

Week Eight: Wrap up and post-test administration of ATAS instrument

Treatment Group 2: Thought-Stopping Counselling Sessions

Thought-Stopping is a procedure in which individuals learn through a succession of training stages, to use verbal prompts to interrupt and reduce unwanted patterns of thought and behaviour. Thought-Stopping is a technique used to interrupt rumination about maladaptive behaviour by changing to introducing novel stimuli into the person's life in order to alter or reduce the cues for the unwanted behaviour. To treat task avoidance the method include the subject identifies negative thoughts; tells him/herself to stop them and focus his/her mind on the rewarding imaginary or task accomplishment

The general framework for teaching clients to use thought-stopping techniques according to Wilde (2010) is to follow a progression that begins with the therapist being more overtly involved and gradually diminishing involvement until the client is able to use the intervention independently. This interventions starts by having clients imagine the anxiety-provoking situation and vocalizing their thoughts. When clients first utter an irrational anxiety-producing thought such as, "If I did a bad job of reading in front of the class, I'd die," the therapist shouts, "Stop." Practice this first step until clients report that the therapist shouting, "Stop" interrupted their irrational thinking. The second step involves having clients merely think of the anxiety-provoking situation and signal the therapist whenever they were thinking an irrational thought. Upon observing the signal, the therapist again shouts, "Stop." The problem with most thought stopping interventions is that they stop at this point. Clients can learn how to stop a disturbing thought but unless they can replace the anxiety producing thought with a rational cognition, the original thought will quickly return. The next important step involves having clients think about positive, rational and/or calming thoughts that could substitute for the anxiety producing thought. Clients are taught to imagine the anxiety-provoking situation and when they began to think irrational thought

they are to say their rational coping statement aloud. Once again, practice this until clients report that they are able to consistently reduce their anxiety to a manageable level. The use of a self-report scale (such as the subjective units of discomfort scale) with a range from 1-10 can be helpful to quantify the intensity of their emotions. The final step involves having clients practice transferring the rational coping statement from an overt statement to internal dialogue. Now they are to merely think their rational coping statement whenever they notice they are beginning to feel anxious.

The first session of thought-stopping in the group therapy began with personal introductions and with individuals giving a brief description of their test anxiety; that is, how long they had it, what happened when they got anxious, how pervasive was the anxiety, when did it occur, and so forth. This took about 20 minutes. Then the therapist gave the subjects an explanation of the treatment rationale and the procedures, explaining emotional and worry components of anxiety of academic task avoidance. The session closed with group discussion and a homework assignment (recording anxiety-provoking self-statements made during the week)

Session two began with a discussion of the homework assignment. This further clarified any anxiety-provoking thoughts typical of an individual, and emphasized the nature of the program. Following this, coping self-statements will be generated by group discussion. Since the treatment procedure was based on changing cognitions, it was important to note the pattern of thoughts of the test anxious subjects. Through a review of the pre-experimental test situation, the group members were encouraged to determine which of their distracting thoughts were more recurrent or typical of their anxiety. It sometimes necessary to cue or prompt the subjects in order to get information from them concerning

their self-statements. The session then proceeded with instruction in the use of alternate self-statement, followed by group discussion of the session and homework assignment – practicing anxiety reducing self-statements in appropriate situations.

Sessions three to five followed the format below. Discussion began and ended each session. The initial discussion dealt with anxiety problems and concerns related to procedures or session homework assignment.

. Most of the time was spent on group subject-therapist interaction, which focused on the generation of anxiety coping self – statements. Ten minutes of group discussion and homework assignment ended each session. The breakdown of the eight weeks thought-stopping treatment is as follows:

Treatment Package for Treatment Group II Subjects

Week One: Initial Orientation and pre-test administration of ATAS instrument

Week Two: Plan in advance how to disrupt the unwanted academic task-avoidance.

Week Three: Practice the disruptive process mentally before having the real experience.

Week Four: Concretization on Thought-Stopping Counselling

Week Five: Review of assignment and general evaluation of the Thought-Stopping counselling

Week Six: The session then proceeded with instruction in the use of alternate self-statement

Week Seven: Subjects-therapist interaction,

Week Eight: Wrap up and post-test administration of ATAS instrument.

3.9 Control of Extraneous Variables

The researcher will ensure that internal validity threats or extraneous variable such as interaction, instrumentation, subjects' attendance and experimental mortality are controlled to a large extent.

i. Interaction: The forty eight (48) respondents will be randomly shared to the two schools. In order to control interaction variable, the students that exhibited academic task avoidance symptom identified withbehavioural strategy rating scale (BSRS) in each of the schools in the first group in the school will receive brainstorming counselling treatment, while second group in the school remain as control group. In the second secondary school, the first group will receive thought-stopping counselling treatment whereas the second group remains as the control group.

ii. Instrumentation: With regard to instrumentation there will not be changes in the ATAS. The same scale will be used to collect both the pre-test and post-test data. There will be consistency in the form and use of the research instrument. This is to ensure that the changes in the measurement will be attributable to the treatment and not to changes in instrumentation. To control threats relating to testing, the time between the pre-test and post-test will be long interval of weeks enough to prevent the subjects from recalling the items.

iii. Subjects' attendance: The subjects will be encouraged to ensure regular attendance to enable them attain the benefit of each treatment session. The researcher with assistance of research assistants and the approval of the school authority presented the treatment during the usual school hours in the normal school classroom setting to avoid environmental effects.

iv. Experimental Mortality: The loss of subjects during the process of experimental treatment will be controlled through assigning more subjects to the groups than required. One additional subject in each group but the extra members will be dropped after treatment before post-test.

3.10 Procedure for Data Analysis

The researcher used the descriptive and inferential statistical tools for the analysis of data. The t-test was used to test comparison between two variables.The research questions were analyzed using the descriptive statistics of means, standard deviations and standard errors.Inferential statistical techniques of Independent t-test statistics was used to determine if the means of brainstorming and thought-stopping treated population was significantly different after the treatment for hypothesis 1and hypothesis 2 tested. The Analysis of Covariance [ANCOVA] was used to test the effect of each of the technique on gender inhypothesis 3, 4 and the differential significant effect of brainstormingand thought-stopping counsellingtechniquesin hypothesis 5. This is a statistical tool used when there are more than two variables to be tested.All hypotheses were tested at 0.05 alpha level of significance.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This study titled effectiveness of brainstorming and thought-stopping counseling techniques on academic task avoidance of secondary school students. To achieve this, five objectives, five research questions and five research null hypotheses were stipulated. The analyses consist of a total of 48 students. There are 12 students exposed to the treatment of brainstorming, 12 exposed to the control group of the brainstorming, 12 others were exposed to the treatment of thought stopping counseling technique and the rest 12 exposed to the control group of the thought stopping group. The statistical package of IBM version 23 was used for the analysis. The analysis is presented in sections. The first section presented the bio data variables of respondents' status, and Sex and Age distributions on frequencies and percentages. The second section presented the result of tested five null research hypotheses. Using the inferential statistics of independent t-test and the Analysis of Covariance (ANCOVA) statistics, all the statistics were tested at 0.05 alpha level of significance.

4.2 Data Presentation

This section presents the description of the respondent of the study in frequency counts and percentages. The data collected for the study covers the distributions of subjects into two treatment groups and two control groups, distribution of subjects by treatment groups, distribution of subjects by gender and the distribution of subjects by age. These are presented in the tables below.

Table 4.1: Distribution of Respondents by Groups

Groups	Frequency	Percentages
Treatment BCT	12	25.0%
Control	12	25.0%
Treatment TSCT	12	25.0%
Control	12	25.0%
Total	48	100.00

Table 4.1 indicates the distribution of respondents into four groups. The treatment group on brainstorming counselling technique (BCT) consisted of twelve (12) respondents representing 25%. The second served as control group for BCT treatment group consisted of twelve (12) respondents representing 25%.The third was the treatment group on thought-stopping counselling technique (TSCT) with twelve (12) respondents also representing 25%. The fourth also served as control group of TSCT treatment group with twelve (12) respondents representing 25%. It should be noted that each group was treated to pre-test and post test scores to determine their mean scores.

Table 4.2: Distribution of Respondents by Sex

Sex	Frequency	Percentages
Male	24	50.0%
Female	24	50.0%
Total	48	100%

Table 4.2 indicates the distribution of respondents by gender for the two treatment groups and two control groups. A total of twenty four (24) respondents representing 50% were males while twenty four (24) respondents representing 50% were females.

Table 4.3: Distribution of Respondents by Ages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14-16 yrs	9	18.8	18.8	18.8
	17-19 yrs	21	43.8	43.8	62.5
	20 and above	18	37.5	37.5	100.0
	Total	48	100.0	100.0	

Table 4.3 shows the distribution of respondents by age across treatment groups and the control groups. Nine (9) respondents are within the age range of 14-16 years representing 18.8%. Twenty one (21) respondents are between the age range of 17-19 years representing 43.8% the remaining eighteen (18) respondents are within the age range of 20 years and above representing 37.5%.

4.3 Hypotheses Testing

Null Hypothesis One: There is no significant effectiveness of brainstorming counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria.

Table 4.4: Summary of t-test statistics on effectiveness of Brainstorming Counselling Technique on Academic Task Avoidance among students

Variable	Groups	N	Mean	Std.Dev	Df	t-cal	p-value
Mean scores	BCT	12	46.88	5.37			
					22	4.24	0.00
	Control	12	58.17	7.51			

P value < 0.05, t calculated > 1.96 at df 22

The result in table 4.4 shows the summary of independent t-test statistics which was used to compare the effectiveness brainstorming counselling on subjects exposed to academic task avoidance with 12 respondents each for BCT and control group. While the

BCT has a mean of 46.88 with standard deviation of 5.37 respectively control group has a mean of 58.17 with a correspondent standard deviation of 7.1 at 22 degree of freedom with the t= 4.236, p= 0.000. The result indicates p-value = 0.000 was found to be lesser than Alpha level of significance of 0.05. This implies that there is a significant effectiveness of brainstorming counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria. The null hypothesis which states that there is no significant effectiveness of brainstorming counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria was rejected.

Null Hypothesis Two: There is no significant effectiveness of thought-stopping counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria.

Table 4.5: Summary of t-test Statistics on effectiveness of Thought-Stopping Counselling Technique on Academic Task Avoidance among students

Variable	Groups	N	Mean	Std.Dev	Df	t-cal	p-value
Mean scores	TSCT	12	46.54	7.02	22	2.43	0.024
	Control	12	54.17	8.33			

p value < 0.05, t calculated > 1.96 at df 22

The result in table 4.5 shows the summary of independent t-test statistics which was used to compare the effectiveness thought-stopping counselling on subjects exposed to academic task avoidance with 12 respondents each for TSCT and control group. While the TSCT has a mean of 46.54 with standard deviation of 7.02 respectively control group has a mean of 54.17 with a correspondent standard deviation of 8.33 at 22 degree of freedom with the t= 2.43, p= 0.024. The result indicates p-value = 0.024 was found to be lesser than Alpha level of significance of 0.05. This implies that there is a significant effect of thought-

stopping counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria. The null hypothesis which states that there is no significant effectiveness of thought-stopping counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria was rejected.

Null Hypothesis Three: There is no significant differential effectiveness of brainstorming counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria.

Table 4.6: Summary of ANCOVA on the differential effectiveness of Brainstorming Counselling Technique on Academic Task Avoidance by gender

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4439.990[a]	7	634.284	8.336	.000
Intercept	121297.500	1	121297.500	1594.092	.000
Tests	.000	0	.1297.500	131.053	.000
Gender	129.025	1	129.025	2.696	.200
Groups	3578.920	2	1789.460	23.517	.000
tests * Gender * Groups	444.000	0	1888.455	4.54	.006
Error	3043.676	40	76.092		
Total	130300.000	48			
Corrected Total	7483.667	47			

a. R Squared = .593 (Adjusted R Squared = .522)

The results on table 4.6 shows the summary of one-way analysis of covariance (ANCOVA) which was used to compare the differential effectiveness between male and female subjects exposed to brainstorming counselling on academic task avoidance. Subjects' pre-test scores of administered academic task avoidance scale was used as the covariate. After adjusting for the covariate, the result of the analysis indicated that there was no significant variation between male and female subjects who received brainstorming

counselling for academic task avoidance. F = 2.70, p = .200. The R Squared value of.593 indicates that 59.3% of the variance in post intervention scores can be explains by the gender after adjusting covariance. The no significant differential effectiveness result implies that the intervention of brainstorming counselling technique on academic task avoidance was not effective for male and female students as both group obtained different level of reduction after intervention. Therefore, the null hypothesis which states that there is no significant differential effectiveness of brainstorming counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria was retained.

Null Hypothesis Four: There is no significant differential effectiveness of thought-stopping counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria.

Table 4.7: Summary of ANCOVA on the differential effectiveness of Thought-Stopping Counselling Technique on Academic Task Avoidanceby gender

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3340.741[a]	7	477.249	3.964	.002
Intercept	119309.143	1	119309.143	990.891	.000
Tests	.000	0	477.249	3.964	.002
Gender	183.926	1	183.926	1.528	.024
Groups	733.173	2	366.586	2.745	.049
tests * Gender * Groups	365.398	2	182.699	3.045	.032
Error	4816.238	40	120.406		
Total	129863.000	48			
Corrected Total	8156.979	47			

a. R Squared = .410 (Adjusted R Squared = .306)

The results on table 4.7 shows the summary of one-way analysis of covariance (ANCOVA) which was used to compare the differential effectiveness between male and

female subjects exposed to thought-stopping counselling on academic task avoidance. Subjects' pre-test scores of administered academic task avoidance scale was used as the covariate. After adjusting for the covariate, the result of the analysis indicated that there was significant variation between male and female subjects who received thought-stopping counselling for academic task avoidance. F = 1.53, p = 0.024. The R Squared value of.410 indicates that 41% of the variance in post intervention scores can be explains by the gender after adjusting covariance. The significant differential effectiveness result implies that the intervention of thought-stopping counselling technique on academic task avoidance was effective for male and female students as both group obtained good level of reduction after intervention. Therefore, the null hypothesis which states that there is no significant differential effectiveness of thought-stopping counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria was rejected.

Null Hypothesis Five: There is no significant differential effectiveness of brainstorming and thought-stopping counselling techniques on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria.

Table 4.8: Summary of ANCOVA on the differential effectiveness of the two techniques on Academic Task Avoidance among students

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3108.167[a]	3	1036.056	9.175	.000
Intercept	151425.333	1	151425.333	1340.991	.000
Tests	.000	0	.	.	.
Groups	194.083	2	90.002	3.856	.002
tests * Groups	194.083	2	97.042	4.859	.006
Error	4968.500	44	12.920		
Total	159502.000	48			
Corrected Total	8076.667	47			

a. R Squared = .385 (Adjusted R Squared = 4.343)

The results on table 4.8 show the summary of one-way analysis of covariance (ANCOVA) which was used to compare the differential effectiveness of brainstorming versus thought-stopping interventions designed to reduce subjects' academic task avoidance. Subjects' scores pre-interventions administration of academic task avoidance scale was used as the covariate. After adjusting for the covariate, the result of the analysis indicated that there was significant variation between subjects who received brainstorming and thought-stopping intervention for academic task avoidance. $F = 3.86$, $p = .002$. The R Squared value of .385 indicates that 38.5% of the variance in post intervention scores as measured by the academic task avoidance scale. The null hypothesis which states that there is no significant differential effectiveness of brainstorming and thought-stopping counselling techniques on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria was rejected.

4.4 Summary of Major Findings

The findings of the study revealed that:-

1. Brainstorming counselling technique is effective in reducing academic task avoidance among secondary school students ($t = 4.24$, $p = 0.000$). This is because their mean on academic task avoidance after exposure to brainstorming counselling technique significantly reduced compared with the mean of the control group. Therefore, the null hypothesis which states that there is no significant effectiveness of brainstorming counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria was rejected.
2. Thought-stopping counselling technique is effective in reducing academic task avoidance among secondary school students ($t = 2.43$, $p = 0.024$). The subjects exposed

to TSCT achieved significant effective mean reduction on the students exposed to thought-stopping counselling technique on academic task avoidance compared to the control group. This implies that the null hypothesis which states that there is no significant effectiveness of thought-stopping counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria was rejected.

3. Brainstorming counselling technique is effective in reducing academic task avoidance of both male and female secondary school students ($F = 2.70$, $p = .200$). Significant difference does not exist between male and female students exposed to brainstorming counselling technique on academic task avoidance. This implies that no significant gender differences on the effectiveness of brainstorming counselling technique on reducing academic task avoidance between male and female. Therefore, the null hypothesis which states that there is no significant differential effectiveness of brainstorming counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria was retained.
4. Thought-stopping counselling technique is effective in reducing academic task avoidance of both male and female secondary school students ($F = 1.53$, $p = 0.024$). Significant difference does exist between male and female students exposed to thought-stopping counselling technique on academic task avoidance. This implies that there were significant gender differences on the effectiveness of thought-stopping counselling technique on reducing academic task avoidance between male and female. Therefore, the null hypothesis which states that there is no significant differential effectiveness of

thought-stopping counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria was rejected.

5. **B**rainstorming and thought-stopping counselling techniques are both effective in reducing academic task avoidance among secondary school students (F = 3.86, p = .002). In comparing the two techniques the subjects treated with BCT achieved more with an average of 59.3% reduction on academic task avoidance compared to 41% for TSCT. Therefore, the null hypothesis which states that there is no significant differential effectiveness of brainstorming and thought-stopping counselling techniques on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria was rejected.

4.5 Discussions

The finding of the study reveals that the null hypothesis one which states that there is significant effectiveness of brainstorming counselling technique on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria was rejected. This means that when compared to control group, subjects exposed to brainstorming counselling shows significant reduction on academic task-avoidance. This is also correlated with the study of Roserner, Lambeck and Geisser (2011) revealed that brainstorming counselling had significant effect on post grief disorder of participant (that is improved participant psychological functioning) in the experimental group over control group. The present findings also agree with that by Bilal (2012) who study revealed that there are statistical significant differences between the experimental group and the control group in the total score and the sub score of the creative thinking in the favour of the experimental

group indicating the effectiveness of using brainstorming strategy in developing creative thinking skills. In consonance with the present findings Mohammed (2012) found that there are statistically significant differences in the achievement and the total of achievement in favour of the experimental group that studied using the brainstorming counselling technique. Al-Harbi (2002) findings also revealed significant differences between the average achievements of the objectives knowledge of Bloom taxonomy for the experimental group which studied the use of the brainstorming technique. The finding agreed with that of Beolem, Keijser, Van den Hout and Vanden-Bout (2007) whose study result revealed that brainstorming counselling therapy was found to be more effective in helping participants cope with post grief disorder. The finding is in consonance with Doughty, Wissel and Glorfield (2011) which revealed that severe grief symptom treated with brainstorming showed significant improvements on participant's levels of grief: reduction in confusion about self-identity/life role, reduction in difficulty in accepting the loss: reduction in difficulty in moving in life; reduction in anger related to the loss and improvement in feeling of meaningfulness after the loss. The finding of this study also revealed that subjects who sabotage their performance be engaging in tasks-irrelevant thoughts and behaviour because they are anxious and concerned about their performance benefited from intervention in which they learn to assess their own abilities and the academic task requirement realistically. Their avoidant behaviour was an end product of various different patterns of attributions, beliefs, goals, decisions and choices. The result of this finding indicates that brainstorming counselling technique had significant effectiveness on subjects' academic task avoidance.

The study findings of hypothesis two which states that there is no significant effectiveness of thought-stopping counselling technique on academic task avoidance among

students of secondary school in Minna metropolis, Niger State, Nigeria was rejected. This means that when compared to control group, subjects exposed to thought-stopping counselling shows significant reduction on academic task-avoidance. The finding is in the same vein with Lamontagne, Audet, and Elie (2009) whose result shows significant difference in favour of the thought stopping group mainly after treatment for persecutory delusions and auditory hallucinations with chronic schizophrenics. Leger (2011) found thought stopping to be a useful measure of clinical outcome but it is suggested that careful control and definition of variations in processors in order eliminate spurious result. Treatment found to produce an improvement which was maintained at the follow-up.

The result of the study reveals that the null hypothesis three which states that there is no significant differential effectiveness of brainstorming counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria was retained. The findings of the study did not reveal significant differential effectiveness of brainstorming counselling technique in reducing academic task avoidance between male and female students of secondary school in Minna metropolis. It suggests that brainstorming counselling technique was effective for male as well for female in reducing academic task avoidance. The finding is similar to that of Gbolagade and Adegoke (2014) who found no significant difference between male and female students on brainstorming as an act of creativity in vocational and technical education curriculum in Nigeria secondary schools. In the same direction Al-Qaral (2011) findings revealed that there were no statistical differences between the means of male and female students score on the creative thinking test and sub skills attributed to gender. However, the present finding is contrary to that of Adeyemi and Ajibade (2011) whose findings revealed a significant main

effect of gender on students achievement in social studies and also that there was significant interaction effect of treatment and gender on students' achievement in social studies. This means that brainstorming has the same effect irrespective of one's sex stereotype.

The finding of hypothesis four which states that there is no significant differential effectiveness of thought-stopping counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria was rejected. The finding of the study reveals significant differential effectiveness of thought-stopping counselling in reducingacademic task avoidance between male and female students of secondary school in Minna metropolis**.** The finding is in the line with Rimm, Saunders, and Westel (2015) whose findings revealed that thought-stopping-covert-assertion treatment package holds considerable promise as an efficient and effective clinical tool the treatment of snake phobia.

The study also reveals that hypothesis five which indicated that there is no significant differential effectiveness of brainstorming and thought-stopping counselling techniques on academic task avoidance among students of secondary school in Minna metropolis; Niger State, Nigeria was rejected. Brainstorming and thought-stopping counselling techniques are two similar counselling techniques on treating academic task avoidance. Though in the course of the present study brainstorming technique was more efficient in treatment when compared with other techniques. The findings concur with that of Bindu (2014) which revealed that students who were trained in brainstorming techniques were more efficient at generating and organizing ideas than students in a control group. Garry's (1982) finding also combined thought-stopping and stimulus control to decrease persistent disturbing thoughts. The experiment was described as successful in the treatment

of two cases that presented problems of compulsive disturbing thoughts. Both cases included a thought-stopping component to terminate the disturbing thoughts, and a stimulus control component—through the use of photographs, to increase alternative desirable thoughts. Similarly to research findings brainstorming is efficient when combined with other techniques. Al-Olimat (2008) findings showed that there is an evident effect for brainstorming and discovery in developing creative thinking among eighth graders in science in Jordan. Moreover, there were differences between both strategies in the favour of brainstorming. Arrick, Voss, and Rimm (1981) results demonstrated the efficacy of the combined treatment, as had been shown in previous research, but also demonstrated the efficacy of the individual components alone. Scheffée Planned Comparisons at the post test and four week follow-up indicated that the three experimental groups were superior to the control on the three self-report and behavioral tests of fear of snakes but not on a test of fears in general. Scheffée Post Hoc Comparisons showed no significant differences between the experimental groups. In the same vein Husain & Mat (2014) in their study illustrated efficiency of thought stopping when used with other technique in his study obsessive thoughts were managed via distraction technique, thought stopping and modified it to a helpful compulsive behaviour via direct suggestion during hypnotic state. The compulsive behaviour was managed via hypo-behavioural approaches, reinforced by direct suggestion and pseudo-orientation.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

In this chapter the summary of the findings of the entire research work was carried out, the conclusion drawn from the study and recommendations were presented. Suggestions for further studies, limitations of the study and contribution to knowledge were also presented.

5.2 Summary

The study investigated the effectiveness of brainstorming and thought-stopping techniques on academic task avoidance among secondary school students in Minna metropolis, Niger State, Nigeria. The research work is presented in five chapters. Chapter one of the research works presents the introductory part of the study. The background of the study was stated and the problems under investigation are examined. Fiveobjectives with correspondingfive research questions were raised for this study. Five researchhypotheses wereformulated and tested at 0.05 level of significance. The scope and delimitation of the study was discussed. Chapter two focused on the review of related literatures covered the three major variables of this study, conceptual framework of brainstorming, thought-stopping and task avoidance variables in the study, the theoretical framework which examined some major theories that are relevant to the study and the empirical review of researches based on the three variables of this study.

Chapter three described the research methodology and design used for the study, which was quasi-experimental design which involved a pre-test, and post-test with two treatment groups and two control groups. The instruments of Behavioural Strategy Rating

Scale (BSRS) for the identification of subjects and Academic Task Avoidance Scale (ATAS) for data collection were described with detailed procedure for data collection and treatment procedures. The procedure for data analyses was presented. Chapter four focused on results and discussions of the data collected including the statistical analysis adopted for the study. The analysis involved data presentations, hypotheses testing and summary of the major findings. Chapter five presented the summary of the entire research work, conclusion drawn from the study and recommendations raised based on the findings including suggestions and limitations for further study. The findings revealed that four of tested null hypotheses were rejected and one retained. Tested hypotheses one, two, four and five were rejected while hypothesis three was retained.

5.3 Contribution of the Findings to Knowledge

The study has contributed to the body of existing knowledge in the following ways:

1. Brainstorming counselling technique is an effective intervention of reducing students of secondary school academic task avoidance.
2. Thought-stopping counselling technique is an effective therapeutic procedure in managingstudents of secondary school academic task avoidance.
3. Both brainstorming and thought-stopping counselling techniques can be used to manage students of secondary school academic task avoidance.

5.4 Conclusion

Based on the findings of the study, it was concluded that brainstorming counselling technique significantly reduced academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria. Thought-stopping counselling technique was also found significant on reducing academic task avoidance among students of

secondary school in Minna metropolis, Niger State, Nigeria. However, there was no significant differential effectiveness of brainstorming counselling technique for reducing academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria. BCT intervention does not discriminate on the bases of gender. There was significant differential effectiveness of thought-stopping counselling technique on academic task avoidance between male and female students of secondary school in Minna metropolis, Niger State, Nigeria. TSCT intervention does discriminate on the level of reduction among gender. There was significant differential effectiveness on brainstorming and thought-stopping counselling techniques intervention on academic task avoidance among students of secondary school in Minna metropolis, Niger State, Nigeria. BCT was more effective on reducing academic task avoidance of the subjects with 59 % compare to TSCT with 41% as measured by academic task avoidance scale.

5.5 Recommendations

Based on the findings the study the following recommendations were put forward that:

1. Counsellors, school psychologists and class teachers should be encouraged to use Brainstorming counselling technique in reducing academic task avoidance among students of secondary school.
2. Thought-stopping counselling technique should be considered by counsellors and school psychologists as an effective therapeutic procedure for treatment of students' academic task avoidance.
3. Brainstorming counselling technique should be utilized for both male and female students of secondary school in the treatment of academic task avoidance.

4. Counsellors, school psychologists and class teachers should considered gender in the use of thought-stopping counselling technique in the treatment of students' secondary school academic task avoidance.
5. Brainstorming counselling technique and thought-stopping counselling technique should be combined for the treatment of students' secondary school academic task avoidance.

5.6 Suggestions for Further Studies

The study is by no means exhaustive; the following suggestions are put forward for further researches.

i. Efficacy of brainstorming and thought-stopping counselling techniques in managing other behavioural problems such as students' school refusal, academic procrastination and self-handicapping could be established.
ii. Further study could be carried out on comparative analysis of the relative effectiveness of brainstorming and thought-stopping counselling techniques on primary school pupils in North Central Geo-Political zone of Nigeria.

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APPENDIX 1

Guidance and Counselling Section, Department of Educational Psychology and Counselling, Faculty of Education, Ahmadu Bello University, Zaria

BEHAVIOURAL STRATEGY RATING SCALE (BSRS)

Demographic information

Please complete the following set of questions. This information will help us understand some characteristics about the participants in our study. All information that is collected will be kept confidential.

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

Name of student: ----------

Sex: Male ---------- Female ----------

Academic program: Math --------- Eng. ---------

Instruction: Please do your assessment on the student's work and actions by evaluating every issue in a continuum of 1 to 5.It is important in the assessment to answer according to your impression of the student. It is useful to think that this is an assessment continuum where at best you can give an approximate description of the student situation. Please read each statement carefully and indicate how true, in general, each statement is for the student using the following key:

Not at all true for me = 1
Somewhat true for me = 2
Moderately true for me = 3
Very much true for me = 4
Extremely true for me = 5

S/N	ITEM	1	2	3	4	5
1	If difficulties arise in the activity or assignment does the student easily start doing something else?					
2	Does the student actively try to manage even the difficult situations or assignments?					
3	Does the student easily give up trying?					
4	Does the student show activity or endurance in her/his actions or assignments?					
5	Does the student easily blame her/himself for failures?					
6	If the assignment or activity does not go well, does the student begin to busy her/himself with this and that?					
7	Does the student easily come up with different explanationsfor her/his failure or difficulties?					

Source: Adopted from Aunola, Nurmi, Parrila and Onatsu-Arvilommi (2000)

Guidance and Counselling Section, Department of Educational Psychology and Counselling, Faculty of Education, Ahmadu Bello University, Zaria

BEHAVIOURAL STRATEGY RATING SCALE

(BSRS)

A teacher completed the Behavioural Strategy Rating Scale (BSRS) by Aunola, Nurmi, Parrila, and Onatsu-Arvilommi (2000) and was used to assess task avoidance behaviour of target students. The assessment consisted of seven items rated on a scale ranging from 1 (not at all) to 5 (to a great extent). A composite score for the student's academic task-avoidance strategy was created by computing a mean of the five teacher-rated items. Crombach's alpha reliability coefficient for the teachers' evaluations in Grades 1, 2, and 4 was .91, .96 and 97, respectively. Teachers' ratings of task-focused versus task-avoidance behaviour have been shown to correlate moderately with children's self-reported task-focused versus task-avoidance behaviour (.30) (authors removed for reviewing purposes, 1997; authors removed for reviewing purposes, 2000) and also with observers' ratings of it (.42) (authors removed for reviewing purposes, 2000).Internal reliability was good ($\alpha = 0.92$).

APPENDIX 2

Guidance and Counselling Section, Department of Educational Psychology and Counselling, Faculty of Education, Ahmadu Bello University, Zaria

ACADEMIC TASK AVOIDANCE SCALE (ATAS)

Dear Respondents,

Your candid and objective responses will be appreciated. The information gathered through this instrument is solely for research work. The information you supply will be treated with utmost confidentiality.

SECTION A: Demographic Data

Instructions: Please fill out the following information about yourself.Kindly tick (√) asappropriate.

1. **Age:** 14-16years ( ); 17-19 years ( ); and 20 and above ( )
2. **Gender:** Male ( ) Female ( )

SECTION B

Instructions: How frequently last did you engage in the following behaviours or thoughts? Kindly react to the items by putting a tick (√) in the column to indicate your response to each statement using the rating scale below in your rating of the items.

Not at all true for me	=	1
Somewhat true for me	=	2
Moderately true for me	=	3
Very much true for me	=	4
Extremely true for me	=	5

S/N	ITEM	1	2	3	4	5
1	I put off the completion of academic task					
2	Allowed myself to be distracted from my work					
3	Gave up studying because I did not feel well					
4	Had no energy to study					
5	Wandered off into daydreams while studying					
6	Had doubts about my own ability					
7	I experienced concentration problem when studying					
8	Gave up when studying was not going well					
9	Doubted that I should have ever taken this course					
10	Interrupted studying for a while in order to do other things					
11	Thought that I had enough time left, so that there was really no need to start studying					
12	Gave up studying early to do more pleasant things					
13	Did so many other things that there was insufficient time left for studying					
14	Studied the subject matter that I had planned to do					
15	I find that I often want to leave academic gatherings.					
16	Had panicky feelings while studying					
17	I will like to achieve things at school, but I have to accept my limits					
18	In order to avoid feelings of disappointment, I just try not to get too serious about school					
19	I think to myself that I will not be able to complete really challenging tasks.					
20	I avoid trying new activities that hold the potential for failure.					
21	I do not try to think about ways to improve my school performance.					
22	I find myself avoiding tasks and assignments that are really important.					
23	I tend to remain to myself during academic gatherings or activities.					
24	Instead of thinking about problems in my academic life, I tell myself that I prefer to be alone.					

Source: Adapted from Rhodewalt (1990) and Ottenbreit and Dobson (2004)

APPENDIX 3

TREATMENT GROUP I: BRAINSTORMING COUNSELLING TECHNIQUE SESSIONS
(TREATMENT PACKAGES FORGROUP 1)

Week One

Objectives:

i) To introduce selves by both researcher and the clients.

ii) To establish a counselling relationship with the clients.

iii) To provide clients with the problem topic for brainstorming counselling sessions.

iv) To administer academic task avoidance scale (ATAS) instrument for pre-test data

Step i: The researcher and the participants introduce themselves.

Step ii: The researcher introduces the problem or issue for brainstorming (academic task avoidance).

Some students purposefully withdraw efforts, resist novel approaches to learning, and avoid academic tasks. Task avoidance is an act of refraining or escaping from an action. Task avoidance can be an intentional behaviour which can be repeated, and therefore, has the potential of developing into a habit over time. Students manifest academic task avoidance behaviours through distraction, exhibiting escape behaviour, procrastination on the task or by embarking on safety behaviours:

- Distraction involves busying yourself and your mind with activities or thoughts to avoid confronting a problem - making phone calls, eating, shopping, and face booking - basically twittering away ones' time;
- Escape Behaviour consists of contriving a way to physically avoid an anxiety-provoking situation, such as faking an illness;

- Procrastination means postponing action on academic task in an attempt to avoid the stress involved with taking that action; and
- Safety Behaviour includes self-soothing actions such as fidgeting, biting your nails, twirling your hair, or engaging in other repetitive nervous habits (or behaviours.) While safety behaviour allows a person to stay physically present rather than escaping, the behaviour often turns into a nervous habit preventing adequate focus to confront the situation.

Step iii: The researcher explains to the client their responsibilities in brainstorming counselling sessions. Brainstorming is a technique, generally used in a group setting, to quickly generate a large number of ideas about a specific problem of academic task avoidance. The clients are:

- Encourage creative thinking and generate enthusiasm
- Encourage participation and building on the ideas of others
- Avoid the "paralysis of analysis" by not evaluating ideas

Step iv: The researcher explains to the clients his own responsibilities.

Step v: The researcher adapts sample question "stems" of Elkenberry (2007) procedure to introduce clients to academic task avoidance.

i. In what ways can one improve on academic task-avoidance?

ii. What are the characteristics of academic task-avoidance?

iii. What is it about academic task-avoidance that sets it apart from other avoids?

Step vi: The researcher emphasizes the importance of developing a collaborative relationship for the success of the counselling process.

Step vii: The researcher asks the clients to respond to those points by accepting the commencements of the process or otherwise.

Step viii: The researcher requests the clients to ask any questions on what has been discussed in the session.

Step ix: The researcher administers ATAS instrument to the clients' pre-test data.

Step x: The researcher informs the clients about the coming to the end of the session.

Week Two

Objectives:

i) To explain to the client what academic task-avoidance means.

ii) To help clients to identify their roles in the group in counselling treatment.

iii) To explain the guidelines of the group brainstorming counselling session to the clients.

Step i: The researcher welcomes the clients to the second session of the relationship;

Step ii: The researcher identifies the roles of all clients in the group brainstorming counselling session.

- One client acts as the group facilitator who records all generated ideas, encourages participation, prevents negative remarks, and watches the time.
- All other group members are to be collaborative, respectful, and cooperative.

Step iii: The researcher explains to the students their own responsibilities e.g. follow user instructions, punctuality, regular attendance, saying the truth and so on.

Step iv: The researcher explains the guidelines of the brainstorming session.

The four basic guidelines to be explained for brainstorming are:

- Criticism is ruled out. Adverse judgement of ideas must be withheld until later. The purpose of the brainstorming session is the generation of many, varied and unusual options.
- Freewheeling is welcomed. The wilder the idea, the better; it is easier to tame down than to think up. Since criticism is temporarily ruled out, its acceptable and desirable that really wild and unusual ideas are shared.
- Quantity is wanted. The greater the number of ideas, the greater the likelihood of useful ideas.
- Combination and improvement are sought. In addition to contributing ideas of their own, participants should suggest how the ideas of others can be turned into better ideas; or how two or more ideas can be joined into still another ideas

Step vi: The researcher gives the clients homework which will form part of the session to come. List some reasons why you think clients avoid academic task.

Step vii: The researcherinforms clients that the first session has come to an end.

Week Three

Objectives:

i) To introduce the client to the concept of brainstorming counselling.

ii) To create a relaxed environment for brainstorming counselling session.

iii) To identify heterogenic group that can lead to more ideas being generated.

Step i: The researcher welcomes the clients as usual into another stage of the brainstorming counselling process on academic task-avoidance.

- Brainstorming is a cooperative approach in which a number of people collectively agree upon a solution after all of their ideas are brought forth and discussed.

Step ii: Create a relaxed environment which is supplied with adequate workspace and materials and free from distractions.

- Provide necessary tables, chairs, paper and writing instruments, white board and markers, and flip chart.
- Ask clients to refrain from annoying mannerisms such as leg swinging, gum chewing, and pen twirling which can interfere with other clients' concentration.
- Announce that all cell phones and electronic devices be turned off.

Step iii: To run a group brainstorming session effectively do the following:

- Define clearly the problem the group want solved, and lay out any criteria to be met;
- Keep the session focused on the problem of academic task avoidance;
- Ensure that no one criticizes or evaluates ideas during the session. Criticism introduces an element of risk for group members when putting forward an idea for a good brainstorming session;
- Encourage an enthusiastic, uncritical attitude among members of the group. Try to get everyone to contribute and develop ideas, including the quietest members of the group;
- The researcher allows the clients to come up with as many ideas as possible, from solidly practical ones to wildly impractical ones for brainstorming (Welcome creativity).
- Ensure that no train of thought is followed for too long;
- Encourage people to develop other people's ideas, or to use other ideas to create new ones ; and

- Appoint one person to note down ideas that come out of the session. A good way of doing this is to use a flip chart. This should be studied and evaluated after the session.

Where possible, participants in the brainstorming process should come from as wide a range of disciplines as possible. This brings a broad range of experience to the session and helps to make it more creative.

Step v: The researcher presents various academic task-avoidance situations for brainstorming by the clients.

Step vi: The researcher asks the clients to mention related events or situations that make them sometimes avoid academic task.

Step vii: The researcher gives clients' homework to rate their academic task avoidance according to their intensity.

Step viii: The session comes to an end.

Week Four

Objectives:

1) To restate the problem definition by implementing the actions agreed for the brainstorming counselling.

Step i: The researcher presents the **r**anking of the generated ideas and suggestions of the previous session. After the designated time frame is over, clients should begin to evaluate and rank all of the ideas generated during the brainstorming session.

Step ii: Implement the actions agreed from the brainstorming

- Agree what the next action will be. Agree a timescale, who's responsible. After the session the researcher circulates notes, monitor and give feedback. It's crucial to

develop a clear and positive outcome so that people feel their effort and contribution were worthwhile.

- When the subjects see that their efforts have resulted into action and change, they will be motivated and keen to help again.
- To create more structured brainstorming activities which illustrate or address particular themes, methods, media, etc., there is a helpful set of reference points on the team building games section.
- The researcher ensures clients retain the rules defining the task, stating clear timings, organising participants and materials, and managing the review and follow-up.
- Agree what the next actions will be. Agree a timescale, who's responsible. After the session circulate.
- **Step iii:**The researcher informs clients about the end of this session.

Week Five

Objectives:

i) To continue on the brainstorming counselling session.

Step i: The researcher welcomes clients back to another counselling session.

Step ii: The researcher informs the clients of the commencement of the brainstorming session

- Overview brainstorming techniques procedure on academic task avoidance.

1) The original question is broken down into smaller questions. For example the question used in the research project was: academic task avoidance.

This question is then broken down into parts:

a) How does student avoid academic tasks?

b) What are the types of avoidance students manifest toward academic tasks?

c) What are the psychological distresses that accompany academic task avoidance?

d) What are the ways forward for improvements?

1) Clients are allowed three minutes to individually brainstorm ideas on their question.
2) Clients then discuss in their small groups the ideas they generated during this stage. The group then elects a recorder whose job it is to summarise the ideas generated collectively by that group.
3) The reporters then move to another member of the group. This stage is repeated until all group members have had an opportunity to contribute to each part of the question.
4) When all group members have had an opportunity to discuss each question, reporters report back to the general members about the ideas of each group member.
5) These ideas are then collectively organised into a logical structure elicited from the group.

Step iii: Recording must be quick because the session cannot wait while ideas are recorded. There are three ways to handle idea recording:

- A separate scribe does all the recording,
- The researcher does all the recording,
- Each participant records their own ideas. The last is preferred because then participants can be recording their ideas as they occur. Spread the idea cards out on the table as you go along. Remember, do NOT judge the ideas! If the ideas start to peter out, try one of the paradigm shifting techniques described in the following section.

Step iv: The researcher ensures that the clients comply withthe time limit. He gives a two minute warning to the contributor, because of the time given.

- The session should have a time limit rather than ending when ideas run out. Yes it's hard, but stick to this rule.

Step v: The researcher gives clients opportunities to make comments and also answer their questions.

Step vi: The researcher informs clients about the end of this session.

Week Six

Objectives:

i) To review the achievement recorded in the last session:

ii) To review the effects of the brainstorming session.

Step i: The researcher welcomes back the clients to another session of the treatment.

Step ii: The researcher requests the clients to individually express their feelings about the effects of the treatment on them.

Activities:

Review the brainstorming sessions. It is important to provide some form of follow-up to the brainstorming session as a sort of follow-through to support student effort. Even if their suggested solutions are not used, it's good practice to provide feedback.

Step iii: The researcher thanks the clients for their efforts to prove to them that their work is valued, and it encourage them to participate in a future brainstorming activity.

Step iv: The researcher informs the clients that the session has come to an end and appreciates them for their cooperation.

Week Seven

Objectives:

1) To guide participates to write the reports of brainstorming sessions.

Step i: The researcher welcomes the clients back to the counselling session

Step ii: The researcher asks clients about their feelings on the achievement made so far.

Step iii: The researcherguides the clients to write final report of brainstorming sessions to include the following elements adopted from Baumgartner(2005) format.

- Statement of the original problem or issue
- Criteria and scale used to evaluate the brainstorming ideas
- All ideas generated during the brainstorming session
- Criteria and rating scales used to evaluate the generated ideas
- Final rated items and their scores
- Relevant comments and further ideas provided by students during the rating process
- How final rated items are used (provide feedback with explanation if the final rated items are not used)

Step iv: The researcher informs the clients about the end of the session.

Week Eight

Objectives:

i) To examine the effect, of the treatment on the clients.

ii) To round off brainstorming counseling session

iii) To administer the post-test on the clients

Step i: The researcher treats comments and questions of clients.

Step ii: The researcher appreciates the collaborative efforts of the clients.

Step iii: The researcher administers academic task avoidance scale (ATAS) instrument to the clients for post-test data.

Step iv: The researcher informs the clients about the end of the treatment session.

Source: Adapted from Baumgartner (2005)

APPENDIX 4

THOUGHT STOPPING COUNSELLING TECHNIQUE SESSIONS (TREATMENT PACKAGES FOR GROUP 11)

Week One

Objectives

i) To facilitate selves introduction by both researcher and the clients.

ii) To establish rapport and create conducive environment for group discussion.

iii) To establish counselling sessions rules and regulations.

iv) To administer academic task avoidance scale (ATAS instrument for pre-test data collection.

Step i: The researcherfacilitates selves' introduction by both researcher and the clients.

Step ii: The researcher explains to the clients the ground rules of counselling sessions.

- Researcher and clients should always be punctual for counselling sessions.
- Views of members must be respected as much as possible.
- Clients should respond objectively to the instruments of data collection.
- Each member should establish the conduct of regular attendance.
- Attempts all home work with sincerity.

Step iii: The researcher emphasizes the importance of developing a collaborative relationship for the success of the counselling process.

Step iv: The researcher requests the clients to ask questions on issues not clear to them

Step v: The researcher assures the clients that information obtained will be confidentially kept

Step vi: The researcher then administer pre-test of ATAS instrument on the subjects.

Step vii: The researcher informs the clients about the coming to the end of the session.

Home work:clients are to write out the reasons why students think to avoid academic task.

Week Two

Objectives:

i) To explain the meaning of academic task-avoidance.

ii) To introduce the client, to the concept of thought stopping counselling technique

iii) To explain the procedure of thought-stopping counselling technique to the clients

Step i: The researcher welcomes the students to the second session of the relationship;

Step ii: The researcher requests the clients to read out the list of reasons why students avoid academic task given as home work.

Step iii: The researcherreminds the clients the rules and regulations of the sessions. e.g. following user instructions, punctuality, regular attendance, saying the truth and so on.

Step iv: The researcher explains to the clients the concept of thought-stopping counselling technique.

Thought stopping is:

- ·Process by which you are able to cease dwelling on a bothersome thought.
- Substitution of a healthy thought for an unhealthy thought.
- Procedure used to stop thoughts that are cues to acting impulsively or compulsively.
- Process by which you are able to break the power of the cues that lead you into addictive or binge-like behaviour.
- Act of deliberately turning to cues that break unhealthy patterns or habits.
- Ability to discontinue obsessing on an idea, image, thought, fear or stimuli that is a cue for unhealthy behaviour.
- Practice of using mental energy in a positive way.

Step v: The researcher explains the rationale for thought stopping to clients and how it can be used to minimize the academic task-avoidance.

- Using the thought stopping technique can give them a sense of control. When followed with positive and reassuring statements, breaking the negative thought habit and reinforcing a sense of reassurance. If unhealthy thought patterns have influenced how they feel and how they behave, so too, will healthy and beneficial thoughts

Step vi: The goals to the treatment will then be set collectively by the researcher and the clients.

Step vii: The researcher gives the clients homework which will form part of the session to come. List some of the negative thoughts that can result from academictask avoidance.

Step viii: The researcher informs students that they have come to the end of the session.

Week Three

Objectives:

i) To generate the list of negative thoughts mentioned in the previous session

ii) To identify the unwanted behaviours exhibited by the clientresulting from negative thoughts on academic task avoidance.

Step i: The researcher warmly welcomes clients into another session.

Step ii: The researcher will read out the home works (negative thoughts) about school phobia as forwarded by the clients. This will be done to refresh the minds of both the researcher and clients.

- Each of the negative thoughts will be viewed in its own merit, looking at its negative effects on the clients and the behaviour that the thoughts precipitate.

Step iii: The clients will be guided to identify how these thoughts affect their fear of school and academic activities.

Step iv: The researcher informs the clients of the end of the session, but will ask if the client has anything to enquire or bring forward.

Step v: Homework will be given to the clients requesting them to come up with at least ten difficulties (school phobia) they have.

Week Four

Objectives:

i) To challenge the distorted thoughts identified in the previous sessions

ii) To guide the client to use one, or a combination, of the thought stopping techniques.

Step i: As usual, the researcher welcomes the clients to another session of the treatment.

Step ii: The researcher explains thought stopping technique procedures :

- Break an obsessive, unhealthy thought pattern by substituting a healthy thought pattern.
- Divert or detour your mind from unhealthy or negative thoughts.
- Clear your mind of all unnecessary and unhealthy thoughts that create stress or cues for acting out in unhealthy ways.
- Replace one thought for another, i.e., the thought of avoidance is replaced by the thought of compliance.
- Hear ‘stop" literally or figuratively whenever a negative or unhealthy thought arises, e.g., the desire for taskavoidance appears and ‘stop" is immediately.
- Replace a negative or unhealthy image with a positive visual image.

Step iii: Having discussed the negative thoughts in previous sessions, the researcher now defines what a normal and positive thinking is, as against a distorted thought.

Step iv: The researcher with the cooperation of the clients, then begins to challenge the distorted thoughts presented by the clients by picking each thought and exposing its faults.

Step v: The researcher then clearly offers his support to the clients appreciating the kind of collaborative sessions they have had.

Step vi: The session then ends with an assignment for the clients to think deeply on the substitution of the negative thoughts with more realistic ones, and report back in the next session how such substitution has affected his/her feelings and behaviour towards anything that has to do with attending school.

Week Five

Objectives:

i) To continue to challenge the distorted and unrealistic thoughts identified in the previous sessions.

ii) To guide the client to positively think better alternatives to his/her challenged distorted thoughts.

iii) To help the clients on the application of thought stopping counselling technique.

Step i: The researcher welcomes the clients into another session of the treatment.

Step ii: The researcher leads the clients in recapitulating on the previous sessions and the success so far achieved.

Step iii: Having discussed the negative thoughts in previous sessions, the researcher now defines what the normal positive thinking is, as against a distorted thought.

Activities: General framework for applying thought-stopping techniques to stop academic task avoidance automatic thoughts.

The clientsfollows a progression that begins with the therapist being more overtly involved and gradually diminishing involvement until the client is able to use the intervention independently. This interventions starts by having clients imagine the anxiety-

provoking situation and vocalizing their thoughts. When clients first utter an irrational anxiety-producing thought such as, "If I did a bad job of reading in front of the class, I'd will die," the therapist shouts, "Stop." Practice this first step until clients report that the therapist shouting, "Stop" interrupted their irrational thinking.

The second step involves having clients merely think of the anxiety-provoking situation and signal the therapist whenever they were thinking an irrational thought. Upon observing the signal, the therapist again shouts, "Stop." The problem with most thought stopping interventions is that they stop at this point. Clients can learn how to stop a disturbing thought but unless they can replace the anxiety producing thought with a rational cognition, the original thought will quickly return.

The next important step involves having clients think about positive, rational and/or calming thoughts that could substitute for the anxiety producing thought. Clients are taught to imagine the anxiety-provoking situation and when they began to think irrational thought they are to say their rational coping statement aloud. Once again, practice this until clients report that they are able to consistently reduce their anxiety to a manageable level. The use of a self-report scale (such as the subjective units of discomfort scale) with a range from 1-10 can be helpful to quantify the intensity of their emotions.

The final step involves having clients practice transferring the rational coping statement from an overt statement to internal dialogue. Now they are to merely think their rational coping statement whenever they notice they are beginning to feel anxious.

Step iv: The researcher guides the clients in selecting substitute positive thoughts. In this session four out of the fifteen negative thoughts will be exposed and substituted with more realistic thoughts.

Step v: The clients would then be asked if they have any observations to make on the progress so far made.

Step vi: The session then ends with an assignment for the clients to think deeply on the substitution of the negative thoughts with more realistic ones, and repot back in the next session how such substitution has affected their feeling and behaviour towards school phobia.

Step vii: The researcher with the cooperation of the clients then continues to challenge the distorted thoughts presented by the client by picking each thought and exposing its faults.

Step viii: The researcher guides the clients in selecting substitute positive thoughts. In this session four out of the fifteen negative thoughts will be exposed and substituted with more realistic thoughts.

Step ix: The researcher informs the clients that the session has come to an end and appreciates the kind of collaborative sessions they have had.

Week Six

Objectives:

i) To continue to challenge the distorted and unrealistic thoughts identified in the previous session

ii) Also continue to guide the clients to positively think better alternatives to their challenged distorted thoughts.

Step i: The researcher welcomes the clients as usual, establishing a close rapport with them.

Step ii: The researcher also reviews the progress so far made and the way forward.

Step iii: The researcher then requests the clients to explain to him how the replacement of the distorted thoughts has affected their feelings and behaviour

Step iv: Again, while challenging the negative thoughts, the researcher guides the clients in substituting the negative thoughts with more realistic ones. The remaining three unrealistic thoughts will be replaced during this session.

Activities: Thought Replacement when an unwanted thought enters, immediately replace the thought with a healthy, rational one.

- Substituting a healthy thought pattern: if you have a tendency to think irrationally due to irrational beliefs, you can develop a rational pattern of thinking by
- Challenging every thought that comes to mind, asking: 'Is this a rational thought? If not, 'What is irrational about it' 'What would be a rational replacement for this thought?'
- Replacement Visual Image: If you have a tendency to visualize negative images, replace these negative images with positive, healthy images.
- Yelling 'stop': on thinking the unwanted thought, immediately yell 'stop' The yell can be out loud or only in the mind. Continue to yell 'stop' until the unwanted thought ceases.
- Aversive Replacements; if you have a tendency to think of an unhealthy behaviour in an acceptable manner, immediately replace these acceptable images with more honest images i.e., thoughts of academic task-avoidance.

Step v: The researchergives the clients opportunity to make any observation deemed necessary.

Step vi: The researcher inform theclients that the session comes to an end.

Week Seven

Objectives:

i) To present to the clients other possible automatic thoughts which they did not present.

ii) To challenge the automatic thoughts of clients academic task avoidance.

Step i: The researcher welcomes the clients to another session of therapeutic procedure.

Step ii: The researcherlists some other faulty thinking or automatic thoughts which were presented by other clients.

Step iii: The researcherdiscusses possible behaviour that causes clients unhelpful nature ofautomatic thoughts.

Step iv: The researcherallows the clients to ask questions or make further clarifications.

Step v: The researcher informs the clients about the end of the treatment session.

Week Eight

Objective:

i: To examine the effect of the treatment on the clients.

ii: To discuss other relevant issue about the treatment and recapitulate previous sessions.

iii: To round up thetreatment sessions.

iv: To administeracademic task avoidance scale (ATAS) instrument on the clients for post-test data collection.

Step i: The researcher treats comments and questions of clients.

Step ii: The researcher appreciates the collaborative efforts of the clients.

Step iii: The researcher administer academic task avoidance scale (ATAS) instrument to the clients for post-test data collection.

Step iv: The researcher inform the clientsabout the end of the treatment sessions.

Source: Adapted from Kennard (2006)

APPENDIX 5

Test-retest reliability coefficient for the test item (N=30) at Pilot Study

Descriptive Statistics

Group	Mean	Std. Deviation	N
VAR00001	46.9333	14.86831	15
VAR00002	41.2000	15.19492	15

Correlations

		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	.907**
	Sig. (2-tailed)		.000
	N	15	15
VAR00002	Pearson Correlation	.907**	1
	Sig. (2-tailed)	.000	
	N	15	15

**. Correlation is significant at the 0.01 level (2-tailed).

Raw scores for the test reliability

45.00 41.00

56.00 52.00

67.00 61.00

65.00 65.00

67.00 62.00

45.00 41.00

43.00 49.00

33.00 30.00

32.00 20.00

34.00 23.00

25.00 21.00

27.00 23.00

45.00 43.00

65.00 42.00

55.00 45.00

SPSS RESULT OUTPUT

Frequency Table

Groups

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Exp BCT	12	25.0	25.0	25.0
	Control	12	25.0	25.0	50.0
	Exp TSCT	12	25.0	25.0	75.0
	Control	12	25.0	25.0	100.0
	Total	48	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14-16 yrs	9	18.8	18.8	18.8
	17-19 yrs	21	43.8	43.8	62.5
	20 and above	18	37.5	37.5	100.0
	Total	48	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	24	50.0	50.0	50.0
	Female	24	50.0	50.0	100.0
	Total	48	100.0	100.0	

HYPO 1
T-Test

Group Statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Mean Scores	Control	12	58.1667	7.51161	2.16841
	Exp BCT	12	46.8750	5.36879	1.54984

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		f	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
MEAN_SCORES	Equal variances assumed	2.159	.156	4.236	22	.000	11.29167	2.66533	5.76410	16.81923
	Equal variances not assumed			4.236	19.913	.000	11.29167	2.66533	5.73031	16.85302

Hypo 2
T-Test

Group Statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
MEAN_ SCORES	Control	12	54.1667	8.32666	2.40370
	Exp TSCT	12	46.5417	7.02417	2.02770

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		f	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
MEAN_ SCORES	Equal variances assumed	.153	.700	2.425	22	.024	7.62500	3.14474	1.10322	14.14678
	Equal variances not assumed			2.425	21.393	.024	7.62500	3.14474	1.09247	14.15753

Hypo 3
T-Test BCT

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
MEAN_SCORES	Male	12	51.6923	9.32635	2.58666
	Female	12	53.5000	7.99687	2.41115

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		f	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
MEAN SCORES	Equal variances assumed	.472	.499	-.504	22	.619	-1.80769	3.58346	-9.23934	5.62396
	Equal variances not assumed			-.511	21.990	.614	-1.80769	3.53617	-9.14143	5.52605

T-Test

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
MEAN_SCORES	Male	12	51.0000	9.07744	2.73695
	Female	12	49.8077	8.27531	2.29516

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		f	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
EAN SCORES	Equal variances assumed	.154	.698	.336	22	.740	1.19231	3.54332	-6.15609	8.54071
	Equal variances not assumed			.334	20.544	.742	1.19231	3.57193	-6.24598	8.63060

Oneway

Notes

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	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
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Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.05

Descriptives

MEAN_SCORES

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Control	12	58.1667	7.51161	2.16841	53.3940	62.9393	44.50	68.50
Exp BCT	12	46.8750	5.36879	1.54984	43.4638	50.2862	35.50	56.00
Control	12	54.1667	8.32666	2.40370	48.8762	59.4572	36.50	66.50
Exp TSCT	12	46.5417	7.02417	2.02770	42.0787	51.0046	38.50	59.50
Total	48	51.4375	8.52195	1.23004	48.9630	53.9120	35.50	68.50

ANOVA

MEAN_SCORES

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1170.187	3	390.062	7.651	.000
Within Groups	2243.125	44	50.980		
Total	3413.312	47			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: MEAN_SCORES

Scheffe

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.
Control	Control	11.29167*	2.91491	.005
	Exp TSCT	4.00000	2.91491	.601
	Control	11.62500*	2.91491	.003
Exp BCT	Exp BCT	-11.29167*	2.91491	.005
	Exp TSCT	-7.29167	2.91491	.116
	Control	.33333	2.91491	1.000
Control	Exp BCT	-4.00000	2.91491	.601
	ControlBCT	7.29167	2.91491	.116
	Control TSCT	7.62500	2.91491	.092
Exp TSCT	ExpBCT	-11.62500*	2.91491	.003
	Control	-.33333	2.91491	1.000
	Exp TSCT	-7.62500	2.91491	.092

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets
MEAN_SCORES

Scheffe[a]

Groups	N	Subset for alpha = 0.05	
		1	2
Controlfor TSCT	12	54.1667	
Controlfor BCT	12	58.1667	
Exp TSCT	12	46.5417	
ExpBCT	12		46.8750
Sig.		.092	.601

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 12.000.

Hypothesis Three Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Groups	1.00	Pre-test Exp	12
	2.00	Post-test Exp	12
	3.00	Pre-test Control	12
	4.00	Post-test Control	12
Gender	1	Male	24
	2	Female	24

Descriptive Statistics

Dependent Variable: Scores

Groups	Gender	Mean	Std. Deviation	N
Post-test Exp	Male	48.6667	4.17931	6
	Female	51.6667	10.67083	6
	Total	50.1667	7.88362	12
Pre-test Exp	Male	64.5714	12.44799	6
	Female	68.4000	11.30487	6
	Total	66.1667	11.61373	12
Post-test Control	Male	42.0000	3.74166	6
	Female	43.7143	8.61615	6
	Total	43.0000	6.80908	12
Pre-test Control	Male	40.6667	4.67618	6
	Female	45.3333	8.18942	6
	Total	43.0000	6.80908	12
Total	Male	49.9167	12.37430	24
	Female	51.2500	13.08916	24
	Total	50.5833	12.61852	48

Tests of Between-Subjects Effects

Dependent Variable: Scores

Source	Type III Sum of Squares	Df	Mean Square	f	Sig.
Corrected Model	4439.990[a]	7	634.284	8.336	.000
Intercept	121297.500	1	121297.500	1594.092	.000
Groups	4338.922	3	1446.307	19.007	.000
Ender	129.025	1	129.025	1.696	.200
Groups * Gender	14.021	3	4.674	.061	.980
Error	3043.676	40	76.092		
Total	130300.000	48			
Corrected Total	7483.667	47			

a. R Squared = .593 (Adjusted R Squared = .522)

Estimated Marginal Means

Grand Mean

Dependent Variable: Scores

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
50.627	1.268	48.065	53.190

Post Hoc Tests Groups Multiple Comparisons

Dependent Variable: Scores

Scheffe

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.
Post-test Exp	Post test exp	-16.0000*	3.56118	.001
	Pretest Control	7.1667	3.56118	.272
	Post test Control	7.1667	3.56118	.272
Pre-test Exp	Pretest Exp	16.0000*	3.56118	.001
	Pretest Control	23.1667*	3.56118	.000
	Post test Control	23.1667*	3.56118	.000
Post-test Control	Pretest Exp	-7.1667	3.56118	.272
	Post test exp	-23.1667*	3.56118	.000
	Post test Control	.0000	3.56118	1.000
Pre-test Control	Pretest Exp	-7.1667	3.56118	.272
	Post test exp	-23.1667*	3.56118	.000
	Pretest Control	.0000	3.56118	1.000

Based on observed means.

The error term is Mean Square(Error) = 76.092.

*. The mean difference is significant at the .05 level.

Homogeneous Subsets **Scores**

Scheffe[a,b]

Groups	N	Subset 1	Subset 2
Pretest Control	12	43.0000	
Post test Control	12	43.0000	
Pretest Exp	12	50.1667	
Post test exp	12		66.1667
Sig.		.272	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 76.092.

a. Uses Harmonic Mean Sample Size = 12.000.

b. Alpha = .05.

Between-Subjects Factors

		Value Label	N
Groups	1.00	Pre-test Exp	12
	2.00	Post-test Exp	12
	3.00	Pre-test Control	12
	4.00	Post-test Control	12
Gender	1	Male	24
	2	Female	24

Descriptive Statistics

Dependent Variable: Scores

Groups	Gender	Mean	Std. Deviation	N
Pretest Exp	Male	40.1667	11.23239	6
	Female	53.0000	10.37304	6
	Total	46.5833	12.29529	12
Post test exp	Male	63.8571	9.09997	7
	Female	58.8000	11.90378	5
	Total	61.7500	10.17238	12
Pretest Control	Male	40.6000	6.46529	5
	Female	42.4286	11.64556	7
	Total	41.6667	9.49003	12
Post test Control	Male	48.3333	15.20088	6
	Female	54.5000	9.46044	6
	Total	51.4167	12.49333	12
Total	Male	49.2083	14.47330	24
	Female	51.5000	11.93460	24
	Total	50.3542	13.17394	48

Tests of Between-Subjects Effects

Dependent Variable: Scores

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3340.741[a]	7	477.249	3.964	.002
Intercept	119309.143	1	119309.143	990.891	.000
Groups	2499.737	3	833.246	6.920	.001
Gender	183.926	1	183.926	1.528	.224
Groups * Gender	501.173	3	167.058	1.387	.261
Error	4816.238	40	120.406		
Total	129863.000	48			
Corrected Total	8156.979	47			

a. R Squared = .410 (Adjusted R Squared = .306)

Estimated Marginal Means

Grand Mean

Dependent Variable: Scores

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
50.211	1.595	46.987	53.434

Post Hoc Tests **Groups**

Multiple Comparisons

Dependent Variable: Scores

Scheffe

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.
Pretest Exp	Post test exp	-15.1667*	4.47969	.017
	Pretest Control	4.9167	4.47969	.753
	Post test Control	-4.8333	4.47969	.762
Post test exp	Pretest Exp	15.1667*	4.47969	.017
	Pretest Control	20.0833*	4.47969	.001
	Post test Control	10.3333	4.47969	.168
Pretest Control	Pretest Exp	-4.9167	4.47969	.753
	Post test exp	-20.0833*	4.47969	.001
	Post test Control	-9.7500	4.47969	.209
Post test Control	Pretest Exp	4.8333	4.47969	.762
	Post test exp	-10.3333	4.47969	.168
	Pretest Control	9.7500	4.47969	.209

Based on observed means.

The error term is Mean Square(Error) = 120.406.

*. The mean difference is significant at the .05 level.

Homogeneous Subsets

Scores

Scheffe[a,b]

Groups	N	Subset 1	Subset 2
Pretest Control	12	41.6667	
Pretest Exp	12	46.5833	
Post test Control	12	51.4167	51.4167
Post test exp	12		61.7500
Sig.		.209	.168

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 120.406.

a. Uses Harmonic Mean Sample Size = 12.000.

b. Alpha = .05.

Between-Subjects Factors

		Value Label	N
Groups	1.00	Pretest Exp	24
	2.00	Post test exp	24
	3.00	Pretest Control	24
	4.00	Post test Control	24
MAIN GROUPS	1.00	CBT	48
	2.00	TSCT	48

Descriptive Statistics

Dependent Variable: Scores

Groups	MAIN GROUPS	Mean	Std. Deviation	N
Pretest Exp	BCT	50.1667	7.88362	12
	TSCT	46.5833	12.29529	12
	Total	48.3750	10.26523	24
Post test exp	BCT	66.1667	11.61373	12
	TSCT	61.7500	10.17238	12
	Total	63.9583	10.91261	24
Pretest Control	BCT	43.0000	6.80908	12
	TSCT	41.6667	9.49003	12
	Total	42.3333	8.10618	24
Post test Control	BCT	43.0000	6.80908	12
	TSCT	51.4167	12.49333	12
	Total	47.2083	10.73790	24
Total	BCT	50.5833	12.61852	48
	TSCT	50.3542	13.17394	48
	Total	50.4687	12.83167	96

Tests of Between-Subjects Effects

Dependent Variable: Scores

Source	Type III Sum of Squares	Df	Mean Square	f	Sig.
Corrected Model	6945.823[a]	7	992.260	10.041	.000
Intercept	244521.094	1	244521.094	2474.431	.000
Groups	6316.031	3	2105.344	21.305	.000
MAINGROUP	1.260	1	1.260	.013	.910
Groups * MAINGROUP	628.531	3	209.510	2.120	.103
Error	8696.083	88	98.819		
Total	260163.000	96			
Corrected Total	15641.906	95			

a. R Squared = .444 (Adjusted R Squared = .400)

Estimated Marginal Means **Grand Mean**

Dependent Variable: Scores

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
50.469	1.015	48.452	52.485

Post Hoc Tests Groups Multiple Comparisons

Dependent Variable: Scores

Scheffe

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.
Pretest Exp	Post test exp	-15.5833*	2.86966	.000
	Pretest Control	6.0417	2.86966	.226
	Post test Control	1.1667	2.86966	.983
Post test exp	Pretest Exp	15.5833*	2.86966	.000
	Pretest Control	21.6250*	2.86966	.000
	Post test Control	16.7500*	2.86966	.000
Pretest Control	Pretest Exp	-6.0417	2.86966	.226
	Post test exp	-21.6250*	2.86966	.000
	Post test Control	-4.8750	2.86966	.414
Post test Control	Pretest Exp	-1.1667	2.86966	.983
	Post test exp	-16.7500*	2.86966	.000
	Pretest Control	4.8750	2.86966	.414

Based on observed means. The error term is Mean Square(Error) = 98.819.

*. The mean difference is significant at the .05 level.

Homogeneous Subsets Scores

Scheffe[a,b]

Groups	N	Subset	
		1	2
Pretest Control	24	42.3333	
Post test Control	24	47.2083	
Pretest Exp	24	48.3750	
Post test exp	24		63.9583
Sig.		.226	1.000

Means for groups in homogeneous subsets are displayed. Based on observed means.

The error term is Mean Square(Error) = 98.819.

a. Uses Harmonic Mean Sample Size = 24.000.

b. Alpha = .05.