

CHAPTER: ONE

INTRODUCTION

Critical thinking in classroom has no long history in Nepal. It was first introduced with the support of Education Support Program (ESP) of Open Society Institute (OSI) New York in 2008. It was launched by Alliance for Social Dialogue (ASD) as the students were much more fed up with the traditional rote system and lecture method of teaching in classrooms. The students were found to be overburdened by home works. As a result they lost their interest in study and missed classes and involved in the notorious activities as drug abuse which could lead them to immediate relief from the school teaching. In this context critical thinking approach was initiated to rekindle the interest of students, to improve the quality of education and to develop the inborn quality and potential of students. We know that we can't make anyone a man as a professional fellow but his/her skill can be developed according to his/her wish. We can't drag all to run together since they are born with unique qualities. Their interest and wish can be generated through facilitation. In this sense critical thinking methodologies are very important.

Surely, thinking is gifted by god only to humans but thinking critically is a set of skills which are to be developed. So, I have made an attempt to carry out a research on developing critical thinking skills while reading with the students, which will stay as a lifelong skill.

Students are found fed up with the traditional system of teaching and learning, which fosters rote learning. Consequently, they better prefer visiting rest rooms to their classrooms. They consider homework and teacher assigned activities as their burden. Therefore, they are indifferent to the teaching learning activities done in the classroom. It is believed that most of the drug addicted students are deviated from the study (learn by heart) because of the rote misery as their mind is not occupied with their thinking of activities which are interesting and essential in their life.

Amongst many strategies that focus on learner- centeredness, critical thinking strategies have been very useful tools to engage learners actively in learning and developing higher level of thinking. So, I have planned to conduct the experimental research on the effectiveness of critical thinking methodology in the English language learning classrooms while teaching reading skill to make teaching learning activities not only child friendly but mind friendly as well.

1.1 General Background

While going through the brief history of critical thinking, I have come to the point that it was developed as the topic under 'Reading and writing for critical thinking (RWCT)' which started bringing extensive staff-development programs in best teaching practices for active learning and critical thinking in 1997 to more than fifty thousand teachers in thirty two countries (Crawford et al. 2005, p. ix). Presently, it has been using in the countries, which have recently been independent and which are in post-conflict situations. The methods and techniques used in RWCT are very useful in classroom teaching which promote active inquiry by students, student-initiated learning, problem-solving by themselves, critical thinking skills, cooperative learning among themselves, writing and reading processes and alternative assessments. So it has gained popularity among teaching professionals around the globe.

But critical thinking (henceforth CT) has no long history in Nepal as it was started in 2008 with the support of 'Education Support Program (ESP) of Open Society Institute (OSI)', New York. The CT program was launched by 'Alliance for Social Dialogue (ASD)' because students are not much more curious and interested to learning activities. They are not motivated to classroom teaching as Mathema (2009) claims that it is due to the teacher-dominated methods of teaching, obsolete and heavily content-driven curriculum, limited opportunity to learn for girls and children of ethnic and linguistic minorities, the inability of students to understand the language of instruction, absence of support to struggling students, lack of harmony between school curricula and the need and reality of the rural society. So to shift the traditional system

of teaching learning to child friendly, moreover mind friendly and their experience oriented, CT program in Nepal has been implemented. He adds that classroom teachings are mostly dominated by teachers. Children are hardly ever encouraged to ask questions or give their own opinions, therefore, it began its program with five five-day-long workshops for pre-service teacher trainers (the teachers from the faculty of Education (TU) and in-service teacher trainers (trainers from the national teacher training organization, the National Centre for Education Development /NCED), half-day demonstration workshops on CT methodology to different stakeholders of education in Nepal such as head teachers, textbook writers, syllabus designers, policy makers of both schools and Tribhuvan University, the translation of the book- 'Teaching and Learning Strategies for the Thinking Classroom' into the Nepali language.

This is new area of interest which has to be studied to restructure the teaching learning system by using critical thinking strategies in EFL classrooms. The traditional method has led the students to rote system which hinders the creativity of children although they secure high marks in their examinations. Due to our trends and tradition, it has been very difficult to use critical thinking inside our classrooms. It fosters the innate capacity of children. It is the need of time and the aim of our education is to prepare the young to educate themselves throughout their lives as the role of education. Strategies to be adopted in the classes in which critical thinking strategies are used help teachers make their classes lively, and ensure students' participations in each and every teaching learning activity to be carried out in classrooms. Following critical thinking strategies, a teacher can help learners develop life skills for them to run their lives in a better and innovative way.

1.1.1 What is 'Thinking'?

Thinking is a gerundive noun derived from the verb 'think', therefore, it is worth beginning to discuss 'think' as a verb rather than 'thinking'.

Butterworth and Thwaites (2010) maintain that we think without thinking. This is the simple action we do as both of them state for our daily activities and minor issues. But we can find some other definitions from the dictionary. Hornby (2008) mentions that the verb 'think' has six different meanings which are as follows:

1-to use the mind in an active way to form connected ideas 2- to have a particular idea, opinion or belief about sth/sb 3- to have or form an intention or a plan about sth, 4 - to have ideas words or images in one's mind, 5 – to form an idea of sth; to imagine sth., to expect sth, 6- to direct one's thoughts in a certain manner, or to a certain subject. (p. 1008)

The first definition of the verbal word 'think' is comprehensible. It says that think means to use mind in an active way to form connected ideas. It is an active process of mind in search of something for a concrete or abstract conclusion. Thinking is the motor for all the activities and behavior and intention.

Freud (as quoted in Lohani et al. 2000 p. 9) rightly describes thinking as an experimental dealing with small quantities of energy, just as a general moves miniature figures over a map before setting his troops in action. It is an aggregate process of actions that makes thinking possible. For Lohani et al.. (2000), 'thinking' is a conscious purposeful mental activity. They mean that our thoughts are consciously directed to some goals.

These definitions give an idea that thinking is purposeful. It is used to find the solution or work out something. Thinking is the primary stage of implementation. It is a mental activity which is not passive but quite active and is always with aims or purposes. It is a conscious activity guided by some perceptions, the level of knowledge, experience and conscience of the thinker. It is like a searching campaign to be familiar with the terms or things available there. It is a means or medium which is consciously done.

1.1.2 Level of Thinking

Till now, we have been practicing rote learning system disregarding whether or not we like it although it is the lowest level of thinking as classified by Bloom (1956). Crawford et al. (2000) clearly mentions the six level of thinking, which are given below.

Creating
Evaluating
Analyzing
Applying
Understanding
Remembering

1-remembering, 2- understanding, 3- applying, 4- analyzing, 5- evaluating and 6-creating(but I like this term as recreating as we can't create anything in the world). Remembering is the first or lowest level of thinking where we practice rote system or collect knowledge. The further level is comprehension. Likewise, creating is the highest level of thinking. According to the Bloom's Taxonomy (1956), the six levels of hierarchy of thinking processes comprise three lower levels of thinking which are termed as, knowledge, comprehension and application and three higher level of thinking as, analysis, synthesis and evaluation.

Crawford et al. and Bloom have tried to categorize the thinking activities in the right order. That is to say, lower level thinking to higher level of thinking. We can discern from the classification of cognitive level that learners have to develop higher level of thinking in order to be successful in their lives. In doing so, learners have to get ample opportunities to practice all the level of thinking in their learning activities inside or outside the classroom.

1.1.3 What is 'Critical'?

This word 'critical' is an adjective. Generally, we think that critical means to be negative or to find mistakes or faults. And this is the job of the people who are always in opposition. But it is more than we simply generalize. Regarding of this, Hornby (2006) gives the following three meanings of the word 'critical': **1-** indicating the faults in sb/sth or one's disapproval of sb/sth, **2-** of or relating to the judgment or analysis of sth. esp. literature, art, etc, **3-** of or at a crisis. These definitions given in the dictionary indicate that the word was used to find the problems or setback of something. Similarly, Encarta (2008) lists the following two meaning of the word 'critical':

1- not approving: tending to find fault with somebody or something or with people and things in general and

2- giving comments or judgments: containing or involving comments and opinions that analyze or judge something, especially in a detailed way. It further describes that the word critical contains not only faults but also about the opinions, judgments with some standards.

The word critical has some concern with the root form *skeri* which means to cut, separate or sift; thus the original idea conveyed by the word was to take something apart or to analyze it. Critical is also related to the Greek word *kriterion*, which means a standard for judging. (Lohani et al. 2000, p. 10)

Nowadays the word 'critical' not only denotes to the negative aspect of thinking but both positive and negative aspects of any deeds, activities and events. So it cannot simply be limited to finding faults or criticizing to others. As a matter of fact, it refers to an effort to conduct an operation for the selected topic that not only separates them into different units but also tries to invent ways of those parts looking at many

possibilities and testing them. The thinkers will reproduce the things, theories, and policies according to the need of time and their requirements.

1.1.4 What is 'Critical Thinking'?

'Critical thinking' is a compound word made up of two words- critical and thinking. Thinking is the gerundive noun which has taken the adjective critical and it has become critical thinking. These two terms are familiar to many people who can read or write the English language but they are quite vague.

The topic critical thinking has been emerged as a new matter of interest in the field of education; however, it has a long history which goes back more than 2000 years. At that time, the great philosopher Socrates began this approach to exploring the world. So his dialectic method is still relevant in the field of critical and creative thinking. John Dewey, the American philosopher, psychologist and educator is regarded as the 'father of the modern critical thinking' tradition. He has named critical thinking as reflective thinking which is defined as an 'active, persistent, and careful consideration of a belief or supposed form of knowledge in the light of the grounds which support it and the further conclusions to which it tends' (Dewey, (1909) as cited in Fisher, 2002, p. 2).

Dewey (ibid.) further explains that critical thinking is an 'active, persistent, and careful consideration of a belief on the basis of which further conclusions are drawn. According to his view, it can be said that critical thinking is the motor of our activities.

Glaser (1941) has defined critical thinking as:

1-an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one's experience; 2- knowledge of the methods of logical enquiry and reasoning; 3- some skill in applying those methods.

Critical thinking calls for a persistent effort to examine any belief or supports it and the further conclusions to which it tends. (as cited in Fisher, 2002 p. 3)

Ennis (1992) defines critical thinking as a 'reasonable, reflective thinking that is focused on deciding what to believe or do' (as cited in Fisher, 2002 p. 4)

Regarding the use of critical thinking in classrooms, Halpern (1996), Kurland (1995) and Unrau (1997) as quoted in Crawford et al.. 2000 p. 4) say that they are the most successful classrooms that encourage students to think for themselves and engage in critical thinking. On defining critical thinking, Paul writes:

Critical thinking is that mode of thinking – about any subject, content or problem- in which the thinker improves the quality of his or her thinking by skill/fully taking charge of the structures inherent in thinking and imposing intellectual standards upon them. (as cited in Fisher and Nosich, 1993, p. 4)

Like Paul, Lohani et al.. (2000) defines critical thinking as

'the processes, imagination and sensibility in order to criticize and evaluate a text or an object or a thing- It is a purposeful form of mental activity; many would agree that it involves learning conscious awareness of the thinking process itself. (p. 12)

(Fisher, 2002) defines critical thinking in terms of abilities. According to him, 'critical thinking is the ability to interpret, analyze and evaluate ideas and arguments'.

Buchanan (2007) maintains that critical thinking as a disciplined, self-directed thinking. It requires thinking about your thinking while you are thinking in order to make your thinking clearer, more accurate and more defensible. Indeed, scientists do this already every time, they use, the scientific method. They ask questions, gather and assess relevant information, come to well-reasoned conclusions/solutions, and they communicate effectively when they write up results.

If we study another definition by Lohani et al. (2000), he mentions that ability to think critically require consciously observing, analyzing, reasoning, and evaluating according to proven standards.

Critical thinking involves logical thinking and reasoning including skills such as comparison, classification, sequencing, cause/effect, patterning, webbing, analogies, deductive and inductive reasoning, forecasting, planning, hypothesizing, and critiquing.

Scriven (1997) argues that critical thinking is 'an academic competency akin to reading and writing'. He further describes critical thinking as a 'skilled and active interpretation and evaluation of observations and communications, information and argumentation' (as quoted in Fisher and Scriven, 1997, p. 21)

All the aforementioned definitions about critical thinking (CT) are quite reasonable and logical, however, to my knowledge; Robert Ennis's definition seems to be short and incomplete. He says that critical thinking is reasonable, reflective thinking that is focused on deciding what to believe or not. No doubt, critical thinking is not confined to what to believe or not. Critical thinking is rather reasonable than prejudiced. It is re-thinking so it can be named as reflective thinking. And it is ultimately headed towards conclusions on what to believe or do. A critical thinker is somehow a judge who attempts to reach to a conclusion and gives his verdict on the basis of evidence and becomes ready to suspend his or her judgments in the absence of sufficient proofs. Here the definition by Scriven (1997) can be acceptable to most of the people. I think it is widely accepted, because it is the active interpretation and argumentation on the observations evaluated by the critical thinkers.

1.1.5 Critical Thinking Skills

On the basis of the source provided by Glaser (1941), the abilities or competencies required for becoming a critical thinker are listed as follows:

- 1) to recognize problems, 2) to find workable means for meeting those problems,
- 3) to gather and marshal pertinent information, 4) to recognize unstated assumptions and values, 5) to comprehend and use language with accuracy, clarity

and discrimination, 6) to interpret data, 7) to appraise evidence and evaluate statements, 8) to recognize the existence of logical relationships between propositions, 9) to draw warranted conclusions and generalizations, 10) to put to test the generalizations and conclusions at which one arrives, 11) to reconstruct one's patterns of beliefs on the basis of wider experience; and 12) to render accurate judgments about specific things and qualities in everyday life. (as cited in Fisher, 2002 p. 7)

Critical thinking skills can be listed as: observing, analyzing, reasoning, conceptualizing, synthesizing, communicating, researching and problem solving. When we think critically, we reason, evaluate, judge solve problems, listen with empathy, consider all viewpoints, think with an open mind, observe more carefully, persevere through a thought to an intelligent conclusion etc.

1.1.6 Distinction between Critical Thinking and Creative Thinking

Critical thinking and creative thinking are found to be used in the more identical situations. So many people think these terms are more or less the same as they come together. However, a plausible line of distinction can be seen between them.

Critical thinking involves logical thinking and reasoning including skills such as comparison, classification, sequencing, cause/effect, patterning, webbing, analogies, deductive and inductive reasoning, forecasting, planning, hypothesizing, and critiquing. Creative thinking, on the other hand, involves creating something new or original. It involves the skills of flexibility, originality, fluency, elaboration, brainstorming, modification, imagery, associative thinking, attribute listing, metaphorical thinking, and forced relationships. The aim of creative thinking is to stimulate curiosity and promote divergence.

For Harris (1998), critical thinking involves reasoning, evaluating, judging and problem solving so that we produce the best thinking we can. When we think critically, we speak and listen with empathy, consider all viewpoints, think with an open mind, observe more carefully, find evidence and fact, persevere thoughts to an intelligent conclusion etc. It is about how to understand claims, follow or create a logical argument, figure out the answer, eliminate the incorrect paths. In Stephen (1998)'s words, creativity involves thinking activities 'outside the box in order to solve a problem, create something new, do something differently than it's been done before. It is more about exploring ideas, generating possibilities, looking for many right answers.

Now the researcher attempts to use the critical thinking skills for the counter criticism on the above definitions of both types of thinking. Critical thinking goes only to the level of analyzing but creative thinking starts from this very level. Critical thinking tries to diagnose, separate and evaluate the views, principles and objects but it doesn't include the skills of invention which is basically done in creativity. [Cynthia Stephenson](#) (1998) correctly says that critical thinking consists of the activities inside the box; however, creative thinking starts functioning somehow out of the box. The activities in the critical thinking are always rationale, humane, factual, and sane but it is not always applicable to creative thinking because it is irrational, inhumane, imaginary and insane as well. The first one tries to work on something which can't go beyond the line but second one has no limitation. The first one is the proof of identification whereas second one is the application of those identified evidences. In a sense first one tries to collapse the old house by separating all the stones, bricks, cement, sand, rod and other materials but creative thinking skills try to make new house out of those materials or more than those as well. Where critical thinking skills stop thinking there creative thinking skills start functioning. It is like border where one country's postman reaches to the border to handover the parcel and another postman receives and takes to his country. The first one attempts to separate as small pieces as s\he can so that it can have its own meaning and importance whereas the second one formulates them into a logical sequence to recreate new principles, theories, or

objects. The more differences can be seen distinctively in the following table by Harris (1998), which helps us to understand the similarities and dissimilarities among the two terms.

Critical thinking	Creative thinking
analytic	generative
convergent	divergent
vertical	lateral
probability	possibility
judgment	suspended judgment
focused	diffuse
objective	subjective
answer	an answer
left brain	right brain
verbal	visual
linear	associative
reasoning	richness, novelty
yes but	yes and

1.1.7 Overlapping Between Critical and Creative Thinking

Although the researcher has tried to show the above distinction between critical thinking and creative thinking, there is overlapping between these two skills. There is not such a distinctive line that one can draw between critical thinking and creative thinking.

Lohani et. Al. (2000) describes that creative thinking differs from critical thinking in that it generates and expresses new ideas, forms, and solutions. Nevertheless, the analytical and evaluative work of

critical thinking enters into many phases of the creative process. Like critical thinking, creative thinking is conscious purposeful mental activity summoned to focus on a problem. But creative thinking can work in a playful spirit while dreaming, fantasizing, or letting an idea percolate during a walk. Creative thinking also gives more attention to aesthetic: it seeks solutions that are not just adequate but elegant. However, some writers feel that it is arbitrary to separate critical from creative thinking; they claim that both are interwoven inextricably. And they point to Einstein's descriptions of how he worked with his own mind.

To some extent, the above two skills critical thinking and creative thinking are different because when one is over another begins. Critical thinking skill enables the thinker to make the right judgment over the pre-made phenomenon but creative thinking skill helps to generate new ideas, forms and solutions. The first skill tries to find the problems whereas the second skill supports to solve it. Even though there are some common skills from which they cannot be completed to each other. According to the above diagram, observing, analyzing, evaluating, researching, synthesizing are such skills which come under these two thinking skills are usual to both of the skills. The critical thinking and creative thinking are the two sides of the same coin as they

share the skills each other. Creative thinking cannot be complete without critical thinking as creation of any phenomenon is unattainable without analyzing and observing the objects or ideas minutely. And critical thinking is also impossible without creative thinking since the thinker has got some perception of creating ideas, forms and objects s/he cannot observe and analyze the objects and ideas. There is not any hard and fast difference between these two thinking skills. They share the skills each other. So, they are more or less the same skills which are used in the process of creating any ideas, forms and objects to the solution of anything.

1.2 Review of the Related Literature

In course of this mini research study, I came to learn the fact that many research studies have been carried out related to this topic of critical thinking. I have made an attempt to list some of them in this research paper.

Freeman (1999) in his research study 'Inviting Critical and Creative Thinking into the Classroom' attempts that critical and creative thinking are crucial to reaching one's full potential. It impels to review various conceptions of critical and creative thinking by leading practitioners in the fields of education, philosophy and psychology. Most students are not being taught the necessary, fundamental skills that will allow them to become good thinkers; nor is curriculum being aligned to explicitly and systematically include thinking skills. So he emphasizes that teachers can become aware of what is involved in critical and creative thinking and the dispositions, skills, strategies and environment that foster good thinking. Armed with this knowledge and understanding, teachers can mindfully and skillfully implement critical and creative thinking as part of the regular, mandated curriculum. Kelly allows the teachers to use these fundamental skills of critical thinking that do not use rote system but they invite the full potential of the students. Using these skills will not impose any new views and ideas but they will evoke their own view, idea and solution.

Casanave (1999)'s research 'Empathy and Communication: Educating for Interaction' focuses on how individuals should interact with one another. Yet in a society where interactions are a significant part of our lives, there should be more emphasis on this subject. By neglecting this subject, the researcher believes that we fractionalize society, breaking down the natural unity of our world. However, the subject of how to interact with others links closely with the age old moral question, how should one live? There are often disagreements on how to answer this question and consequently disagreements on how it can be taught. This paper is the beginning of a search for how interactions can be taught through empathy and communication. Through the critical thinking skills that support these concepts, individuals can learn how to interact more effectively and morally with others.

He has begun this study by endeavoring to obtain a greater understanding of empathy and its nature. He reviewed the works of several philosophers and psychologists such as Lipps, Stotland, Hoffman, Scheler, and Noddings. Their writings led him to understand empathy as the act of receiving another into oneself through affective and analytical means in order to understand another's frame of reference accurately. This paper then discusses how empathy can be developed. Many of the empathy development suggestions overlap with techniques involved with improving interpersonal communications, including dialogue. Dialogue, as described by David Bohm, is for the purpose of learning from each other and thus creating shared meaning, which like empathy, connects and unifies those involved. This paper also shares several examples of already existing educational and developmental programs that utilize the teachings of empathy and communication skills. By the means of communication we can either learn to think, analyze and evaluate. We can build knowledge and apply them. We learn these skills of critical thinking in the society and use them in the society.

Clark (1997)'s 'Assessing Thinking in Middle School Students' is about how to diagnose specific thinking skills in middle school students within a testing context for the purpose of developing appropriate instruction and remediation.

He further states that instruction is needed in critical thinking skills to have a twofold application. The teaching should include the critical thinking skills practically because actions speak louder than words. These skills are to be learned from the middle school.

Allen (1997) in his study, 'Critical Thinking and the Community College', presents an overview of the conceptual, structural and political responses of the academic community to this challenge. It focuses principally on the conceptual responses because these provide the theoretical underpinnings for both the structural and political responses of the critical thinking movement: the pedagogical organization and practices; the competing political agendas; and, the popular understanding of the movement. As we know that we are not only social animal but also a political animal as well. He/she is guided by the political principles to think in a particular way. We can see the example that some ten years ago people of Nepal couldn't think the country without king but today it is possible. So politics dominates our thinking.

AlShabeeb (1997) in his study, 'Modifying and Integrating Critical Thinking into the Traditional Pedagogy of Saudi Girls' Elementary School', considers about the problem of poor and inadequate teacher preparation and teaching quality in Saudi elementary schools. This thesis focuses on Saudi girls reading in elementary schools. It is argued in this study that in order to address the problem resulting from a lack of critical thinking skills we should improve poverty and inadequacy. He rightly discusses that a man's thinking is led by his own necessity of his own. If he is hungry, he can only think about food. Until he is satisfied he can't think about his study. In this sense we can say that our thinking is led by our own need. So it should be fulfilled first then only other things can be possible.

Atkinson (1997) in the very study, 'The Role of Critical and Creative Thinking in Academic Retention Strategies for College Students' has drawn the attention about the problem of Gallo retention of college students who are under prepared for the academic demands of college. They will be addressed by looking at the skills and

needs of "high profile" or high risk students. He has taken the terms critical and creative thinking concepts as a framework for defining relevant skills and motivation. Moreover, he focuses that students' need and skill development can be assessed more effectively and authentic learning formats can be woven into the fabric of holistic outreach interventions

Wollak (1997)'s 'Paradox of Difference: Teaching Meta-cognition to Adolescents' explains about providing the students with the skills necessary for survival and success in the world of constant change which they can use toward the betterment of society as well as for self-fulfillment. She believes that adolescents are confronted with the challenge of exploring the world around them as they develop independence in their decision making. Providing opportunities in the classroom that have students test their decision making skills, examine the possible consequences of those decisions, and explore options and alternatives to the expected outcomes can make our students more critical and creative decision makers and problem solvers. This thesis explores the use of meta-cognition in the lives of young adolescents, fifteen and sixteen years of age. In order to develop basic thinking skills, students must direct their attention to the processes and products of their thinking. Focusing on the use of language, particularly teens' use of stereotypes when in relationships with others, this thesis has students become aware of the creation and use of "loaded language," and how its use is indicative of faulty reasoning and the behavior of a non-critical thinker. By exercising meta-cognition students are instilled with a more "mindful" attitude of life that can develop and transform their internal life and their interpretation of who and what they are and what they may become. This thesis defines the terms pertinent to the topic of meta-cognition, provides a rationale for teaching meta-cognition to teenagers, and presents the responsibilities of the professional educator in introducing and enhancing the students' skills in meta-cognition. Also, this thesis provides exemplary activities that demonstrate these opportunities as integrated within a sophomore English curriculum.

Daniel (1996)'s 'The Critical Moral Classroom: An Approach to Teaching Values' describes about the proper place and instruction of morals and values in public schools. It is considered from an historic and social view. It is a pedagogical approach to teaching values in the classroom, which is based in critical thinking, is offered as a resolution to the stalemate regarding morals and values in schools that is a result of competing cultural forces.

Zafft (1995)'s 'Enhancing Thinking Ability in Beginning Nursing Students' is a focus on thinking critical, creative, and meta-cognitive which can provide a bridge for appropriate integration of previous knowledge with new learning. The central concern of this thesis is the development of classroom activities which use common experiences as a base from which to examine and expand thinking. Emphasis is placed on the ways in which previous experience provides important information about new learning. This focus aids in transference of facts into flexible and usable knowledge. It also creates a place where cultural issues which impact nursing, such as gender, can bubble to the surface and be addressed. Along with specific classroom activities are several design criteria which focus on thinking and guide educators in the development of classroom activities. Culture plays significant role learning and transferring knowledge and it studies about it so it is worth describing here.

Allen (1994) has put forward a research on 'Incorporating Inventive thinking in the Middle School Life Science Curriculum'. This thesis consists of a series of inventive thinking activities designed to be integrated into a year-long middle school life science curriculum. The term inventive thinking is used to describe the process needed to address an ambiguous or open-ended problem, whereby students are required to identify and seek out the needed goals, plus the appropriate rules and operations for solving the problems or completing the task. The inventive process combines the analytical, evaluative skills and attitudes of critical thinking with the generative, synthetic skills and attitudes of creative thinking with the goal of producing a product. The product may be a model, design, plan or physical object; it must be original to the student; and it must solve the assigned problem.

Buckley (1993) shows in her research 'A Thinking Skills Approach to the Humanities' how critical and creative thinking skills can be integrated into a high school curriculum. It focuses primarily on the teaching of Huxley's novel, *Brave New World*, although the book is meant to be a paradigm for other works. She further describes that critical and creative thinking skills are not possible through the traditional curriculum. It should be designed accordingly otherwise these skills may lead to the negative aspect.

Caffelle (1992) explains in his study 'Meta-cognition in the Elementary Classroom: an Exploration' about meta-cognition which is a practice that enables students to monitor their thought and processes in order to think critically. Research indicates that when students are aware of their thinking they become better thinkers. The purpose of this thesis is to encourage teachers to give more attention to meta-cognition in the classroom. This emphasizes that self-realization is much more significant in learning which enables the learners to compare their situation and the surroundings. Then they will be able to find the need of them among the thousands of wants. It really initiates critical thinking that can be headed to creative thinking.

Frenquellucci (1993)'s 'Teaching Foreign Languages in Context: Intermediate Italian and Critical Thinking' proposes to enhance the teaching of intermediate Italian through the integration of critical thinking skills and innovative techniques of language instruction. Implementing such a program requires shifts in both content and teaching methods. Language (both native and foreign) is not a set of detached components, but rather a tool for communication of perceptions and ideas through meaningful exchanges. Here the researcher inferences about Italian language in which critical thinking skills can be used. This undoubtedly invites the innovative techniques of language teaching.

Cotter (1992)'s 'Critical Thinking Skills in a Meteorology Curriculum' is about the integration of critical thinking skills into a meteorology unit of an Earth Science curriculum. The integration of these skills and strategies with the teaching of

meteorology subject improves the learning of the subject concepts. Here the researcher considers the concept that these all the critical thinking skills are to be integrated to each other. One skill is not enough for the complete circle of critical thinking skills.

Beal (1991) writes, in his research, 'The Relationship of Empathy to Effective Speaking: Critical and Creative Thinking in the Speech Process' about the factors that influence the success of a speaker in speaking effectively in front of the audience. Particularly, he has encouraged the development of critical and creative thinking skills and dispositions as the students focus on engaging closely with their topics, in preparing messages for their audiences, and in selecting styles of delivery. This study investigates the influence of activities which elicit empathy in helping students to think. Surely speaking is the primary form of language. Empathy is a kind of encouragement and reinforcement that leads the learner to motivate to elicit the solution in learning. It helps in active learning.

Gordon (1991)'s 'Integration of Critical Thinking into Content Area Instruction' is about the need for the development of critical thinking skills in students. He demands for the integrating critical thinking skills into content area instruction. This thesis basically focuses on Costa's Theory of Meta-cognition, Sternberg's Theory of Intelligence and Perkins' Thinking Frames. The thesis canters around three model lessons which contain the elements essential to a successfully critical thinking program. The first model is to explicit statements of skill and content area objectives are to be established and a thinking motivator introduces each lesson. A meta-cognitive component of planning, monitoring and evaluating progress is designed to enable students to assume responsibility and accountability for their progress.

Adkins (1990) has made an attempt to research on 'Critical Thinking in Reading: A Whole Language Approach'. Here he has described about the fundamental purpose of the thinking skills movement and the development of higher level thinking in students. In the area of reading this means that students should be challenged by questions and

problems in literature which cause them to go beyond a literal understanding. They should be taught to interpret and evaluate all types of literature. He further explains that to facilitate critical thinking, teachers should provide opportunities for students to problem solve in pairs or small groups. They have to encourage a non-judgmental classroom atmosphere which allows students freedom of thought. They should utilize a list of relevant thinking skills and teach thinking strategies and methods directly using these skills as a backdrop.

Empathy (1990)'s 'Critical Thinking, and Creativity: Theories, Training, and Interrelationships' presents a supposition, based on a review of existing theoretical and empirical literature. It further describes that there exists a three-way relationship between empathy, critical thinking, and creative thinking. Initially readers are provided with an overview of some of the literature on empathy theories, as well as on training methods used for the promotion of empathy. Then they are gradually learned the critical thinking skills. Empathy motivates the learner to use the critical thinking that eventually results to creative thinking.

Cooper (1987)'s 'Critical and Creative Thinking: A Literature Approach' is about the lack of correspondence between what is required for critical thinking in his adulthood and what is being taught in school programs intended to develop critical thinking. The problems of thinking in the real world do not correspond well to with the problems of the large majority of programs that teach critical thinking.

He adds that we are preparing students to deal with problems that are in many respects unlike those that they will face as adults. He was not satisfied with the critical thinking skills because those all the skills were not the need of him so he advocates that such critical thinking skills should be taught as the need of the learners.

Cunningham (1986)'s thesis on 'A Critical and Creative Thinking Curriculum Guide' attempts to define thinking critically as a commitment to philosophical probing of questions. It asks us to tell right from wrong, fact from opinion, process from product.

These critical thinking skills are like the torch in darkness which helps to search the things in the dungeon as well. They help to discover the gem from the vast ocean as key points from the description. These skills are equally important in the analysis, synthesis and evaluation.

Cohen (1980) reports, in his study 'Altering Habit-Bound Thinking Through a Critical Thinking Skills Approach to Children's Literature' about the critical thinking skills (as the dictionary defines them) "to determine, resolve, work out, etc. by reasoning; to use the mind for arriving at conclusions, making decisions; drawing inferences." He describes that thinking is a kind of habit that can be developed from the early age. Once it becomes the habit of thinking critically, it continues through the whole life. It becomes the lifelong skill. By aforementioned some research studies we come to the conclusion that critical thinking skills are very important in the classroom teaching. Using critical thinking skills invites autonomous ideas, views, opinions, solutions and implementations in course of complete life. They enable the learners for the fundamental skills for life. The learners will be more motivated towards the learning activities because they always want to experience by themselves. These skills will bridge their previous knowledge, skill and experience to the unfamiliar things and situations. And these skills are integrated each other. They can't be learned in later ages as well. They should be started from the early period because thinking critically and creatively is a habit and once it is made is difficult to transform so it is said that first you make your habit then it will make you.

When the teacher teaches with critical thinking skills he/she will use the democratic system using cooperative learning activities. This is the most crucial system in the globe.

In a nutshell teaching critical thinking skills is useful for drawing the lost motivation to learning of all the students usually in case of Nepali schools where there is traditional rote system of learning initially. Secondly, it challenges them with questions, problems and riddles that lead them to learning. These skills will bridge their past knowledge and experience for the unfamiliar and wonderful things and

puzzling circumstances. Thirdly, it supports and uses democratic system and culture that promotes democracy to be established well in the future. They will learn to respect others' view even though they are not supportive and to debate in a polite way. They learn to negotiate and reach a consensus and to support the reasonable arguments. They will learn to defend their opinion with reasonable facts and observations.

This research study was carried out to find out the effectiveness of critical thinking strategies into the English classrooms while teaching English as a foreign language. This study is about the critical thinking skills based on reading, thinking and writing skills. The researcher has made an attempt to study the level of thinking development through the critical thinking strategies used in the classroom. This research is conducted in the context of Surkhet. This study is unique as it was carried out to develop thinking skills through reading. The students' age group was from eleven to thirteen. English is the foreign language for them. On the basis of its subject, students, situation and context, this research study is special than others.

1.3 Objectives of the Study

The objectives of the study are:

- a. to find out the effectiveness of critical thinking in EFL classroom.
- b. to suggest some pedagogical implications on the basis of the findings
- c. to provide empirical evidence of CT methodologies.

1.4 Significance of the Study

The very study is a small-scaled research but a significant attempt to compare the learning and teaching with or without critical skills so it can equally be important for all the professionals involved in the field of teaching. It can be useful to the students, researchers, curriculum designers, methodologists and the people interested in teaching language as a foreign language

CHAPTER: TWO

METHODOLOGY

The research findings cannot be measured until the researcher uses the correct research methodology as it is the systematic way of study. This chapter deals with the methodology used by the researcher to find out the relative effectiveness of the two methods: critical thinking methodologies and usual methods. The chapter comprises the sources of data, sample population of the study, sampling procedure, and tools for data collection, process of data collection and limitations of the study which the researcher has adopted while undergoing the study.

2.1 Sources of Data

Both primary and secondary sources of data were used for carrying out this research.

2.1.1 Primary Sources of Data

The primary sources of data for this research were the students of grade seven studying in SOS Hermann Gmeiner Higher Secondary School, Kalagaon, Surkhet.

2.1.2 Secondary Sources of Data

Articles, magazines, journals, teaching manuals, previous theses available online and books related to the topic in question are the secondary sources of data for this study.

2.2 Sample Population of the Study

The total populations of the study were 42 students of class seven studying in SOS Hermann Gmeiner Higher Secondary School, Birendranagar-3, Kalagaon, Surkhet.

2.3 Sampling Procedure

The researcher selected Hermann Gmeiner Higher Secondary School, Birendranagar-3, Kalagaon, Surkhet purposefully as he is one of the teachers of the school. Then, he randomly selected the students of grade seven. He selected twenty one students with ten girls in each group randomly. The selected population was divided into two groups- Groups 'A' (control group) and Group 'B' (experimental group) based on their pre-test raw marks so that both the groups can be formed with the students having more or less equal level of intelligence. On the basis of odd and even numbers girls were placed into two groups. Students having equal marks in pre-test were free to go any group.

The ranking procedure and group division were managed in the given ways:

Pre-test rank	Group 'A'	Group 'B'
1 – 10	even	odd
11 – 20	odd	even
21 -30	even	odd
31 – 40	odd	even
41 and 42	even	odd

2.4 Tools for Data Collection

A set of test items to be administered at the end of the intervention was the tool for data collection to assess the students' achievement. It includes two different types of test items: pre-test and post-test. Each test paper carried 25 marks in total. The tests were constructed in such a way that both the tests would have, more or less, the same level of difficulty.

2.5 Process of Data Collection

The required data for the study were collected by adopting the following process:

- i) At first, the researcher talked to the authority i. e. the Principal to get the permission and explained him the purpose of the visit. He explained the purpose of the study and assured the judgment of the students.
- ii) He prepared a set of test items based on knowledge, comprehension, application, analysis, synthesis and evaluation as specified Bloom (1956) for pre-test.
- iii) After preparing a set of tests, he administered a written pre-test to determine the performance of the students in reading and writing. And on the basis of the pre-test marks obtained by students were divided into two groups: Group 'A' (experimental group) and Group 'B' (controlled group).
- iv) At last he divided the students into two groups on the basis of odd-even ranking procedure which is as follows:

Pre-test rank	Group 'A'	Group 'B'
1 – 10	even	odd
11 – 20	odd	even
21 -30	even	odd
31 – 40	odd	even
41 and 42	even	odd

- v) Having done the grouping the learners, the researcher taught both the groups twenty-nine lessons. Each period was of forty minutes.
- vi) After completing twelve lessons, the researcher administered the written sample-test among all the students. It carried 25 marks in total.
- vii) After teaching for twenty-nine days, the post-test was administered. The collected copies were corrected. This is how the required data were collected.

2.6 Limitations of the Study

) This study was carried out under the following listed limitations:

- i) The study population was limited to forty-two students of class 7 studying in SOS Hermann Gmeiner Higher Secondary School, Birendranagar-3, Kalagaon, Surkhet. They were of twelve to fourteen years of their age.
- ii) The total population of the study was bounded only to two groups e.g. Group 'A' and Group 'B'.
- iii) The data were collected from the written tests only.
- iv) The test items to elicit the required data were limited to reading and writing skills.
- v) The study was limited to lower secondary level only.
- vi) The study was narrowed to teaching the English language only.

CHAPTER: THREE

ANALYSIS AND INTERPRETATION

The very chapter of the study as suggested by the title deals with analysis and interpretation of data collected from pre-test, sample test and post-test results. After collecting the test papers from both groups of informants, the responses were marked systematically and the marks obtained by the students were tabulated duly. The researcher made the comparison on the basis of different variables as; test items, gender and content. The analysis of information was done by using the statistical tools of mean (average) and percent. The analysis concludes to the interpretation of their performance and effectiveness of both the methods; critical thinking method and usual methods in teaching reading and writing of English.

In case of analysis and interpretation of data for the study the researcher has used the data in the following ways:

- i) Comparison of total performance in general.
- ii) Level wise comparison of performance of both the groups.
- iii) Gender wise comparison of performance of both the groups.
- iv) Group wise comparison of the performance of boys in different test items as a whole.
- v) Group wise comparison of the performance of girls in different test items as a whole.
- vi) Level wise comparison of the performance in general.
- vii) Content wise comparison of the performance of boys.
- viii) Content wise comparison of the performance of the girls.

The analysis of the data has been carried out in the following ways:

The individual score of the tests (Pre-test, Sample test and Post-test) of each heading was taken and tabulated group wise. Then, the obtained marks of each student in the pre-test were subtracted from the obtained marks of sample test and post-test. The obtained marks regards to their performance. The performance result was converted into percent. The percent as well as increased marks was compared of both groups. And the increased percent of each group was determined by converting the average increased marks into percent. Thus, the relative effectiveness of the two methods was determined.

3.1 Comparison of Total Performance in General

A reading passage was given to the students and the test items were; find the similar or opposite words, choose the best answer, decide either true or false, make sentences, answer the questions in short and write a short paragraph. Here finding word refers to knowledge level, choose the best answer and decide either true or false shows comprehension level, making sentences indicates application level, and answering as well as describing signifies the level of synthesis and evaluation.

Table No. 1

Comparison in General

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	10.28	14.47	4.19	37.03
B	9.57	8.52	-1.05	-10.94

This table reveals the average score of both the groups. It further tells about their differences in marks and percent. According to the table, Group 'A' has secured 10.28 marks in average in Pre-test while it increased its marks in Post-test and the post

test score reached to 14.47. Group ‘A’ increased 4.19 marks, which is 37.03 percent. On the basis of aforementioned data, Group ‘A’ seems to have improved its reading and writing skills. On the other side, Group ‘B’ has secured 9.57 marks in average in the Pre-test but it scored lesser marks i. e. only 8.52 marks in average. The difference between the average marks got by Group ‘B’ in Post-test is lesser by 1.05 marks. It decreased its marks by 10.94 percent. Thus, it is obvious that the experimental group outperformed the controlled group. Therefore, it can be claimed that critical thinking methodology is more effective than other traditional methods for teaching reading and writing in English.

3.2 Level-wise Comparison of the Performance of both the Groups

The test was divided into six levels of performances; knowledge level, comprehension level, application level and analysis, synthesis and evaluation .The first item consisted of six marks, second four marks, third three and the last one was of twelve marks. And there were altogether six questions.

3.2.1 Comparison in the Knowledge Level

In this level of test items the researcher provided the students different words that were similar or opposite in meaning. Each word carried one mark and six in total. The total items were six. The performance of both groups can be seen in the following way.

Table No. 2
Performance in Knowledge Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	1.23	3.14	1.91	153.84
B	1.38	2.23	0.85	62.06

The above table shows that the average score of Group ‘A’ in the Pre-test was 1.23 and it increased 1.91 marks in total and reached to 3.14. When we go to the increased percent it becomes 153.84%. On the other side, Group ‘B’ has 1.38 average marks in Pre-test. It increased its marks and reached to 2.23. The difference is of 0.85 marks. It increased marks by 62.06 percent. We can see that Group ‘A’ has the difference in score of 1.91 marks in the pre-test and post-test, whereas Group ‘B’ has the difference of 0.85 marks in pre-test and post-test. Group ‘A’ has amplified 1.06 marks more than Group ‘B’. By comparing between the scores of both the groups, we can see Group ‘A’ is better than Group ‘B’, therefore, we can say that critical thinking methodologies and strategies are more effective than others for teaching focusing the lowest level of knowledge. It may be because a critical thinking takes information as the pre-requisite for developing higher level of thinking.

3.2.2 Comparison in the Comprehension Level

In the test items of this level, the four questions were of true/false items and choose the best answer type. Each test item carried one mark and therefore four in total.

Table No. 3
Performance in Comprehension Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	1.71	3.42	1.71	100
B	1.90	2.66	0.76	62.06

According to the above table, we can see that the average score in the pre-test of Group ‘A’ is 1.71, where it is 1.90 of Group ‘B’. In the pre- test Group ‘B’ seems to be better than Group ‘A’. During the course of classes, Group ‘A’ excelled the Group ‘B’ by 1.71 marks and reached to 3.42. It has amplified by 100 percent. If we see Group ‘B’ it has increased 0.76 marks and reached to 2.66. It increased 62.06 percent.

Having made the comparison, it is clear that Group ‘A’ has performed better than Group ‘B’. As a result, in this level of performance critical thinking methodologies and strategies seem more effective than any other methods.

3.2.3 Comparison in the Application Level

In the test item of this level, the researcher provided words to make their own sentences in the pre-test and write answers in post-test. It carried only three marks. The performance of the students in average can be seen in the following table.

Table No. 4
Performance in Application Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	1.66	1.42	-0.24	-14.28
B	1.33	0.47	-0.86	-64.28

The above table reveals that the average marks of Group ‘A’ in pre-test was 1.66 whereas it was 1.33 of Group ‘B’. Here both the groups couldn’t do well in post-test. They both decreased their marks. Group ‘A’ decreased marks by 0.24 and Group ‘B’ decreased by 0.86. When we see it in percent, we can see that Group ‘A’ has got 14.28% less marks than the pre-test but Group ‘B’ has secured 64.28% less marks than that of pre-test. They both have deteriorated their performances but Group ‘A’ again seems better because it has not deteriorated as much as Group ‘B’ has done. In this context it can be judged that critical thinking strategies are more effective than other strategies.

3.2.4 Analysis, Synthesis and Evaluation Level Comparison

In this level of test items, six questions were asked. Each question carried two marks and therefore, the total score of the test items was twelve marks.

Table No. 5

Performance in Analysis, Synthesis and Evaluation Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	5.33	6.42	1.09	20.53
B	4.71	3.00	-1.71	-36.36

The above table shows that the average marks of Group 'A' in Pre-test is 5.52 whereas it is 4.66 of Group 'B'. Group 'A' increased its marks by 1.09 and reached to 6.42 but it is not true to Group 'B'. Group 'B' decreased its marks in this level of performance and stood at 3.00 marks in total. It decreased 1.71 marks. It is 36.36 percent which is less than the marks in pre-test. The figure shows that Group 'B' has deteriorated its thinking skills. In case of Group 'A' it has increased its marks by 20.53 percent which is comparatively more than 50 percent than that of Group 'B'. Their difference in performance is of 56.89 percent. In this sense, it can be argued that CT methodologies and strategies are better than other methodologies in teaching reading and writing.

3.3 Gender-wise Comparison of the Performance

This research work includes the study of gender-wise performance as well. The subject variables were: boys and girls. The total population of boys in each group was eleven and girls' was ten. In both the groups, the researcher studied the increased percent of boys and girls' performance in the pre-test and post-test. It was determined separately and compared each other gender-wise to find out the effectiveness of the two methods to teach reading and writing.

3.3.1 Boys

There were twenty-two boys- eleven in each group, who were included as the primary source of the data. The questions contained of all the levels from knowledge level to evaluation and the full marks were twenty five.

Table No. 6
Boys' Performance

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	10.36	14.81	4.45	42.98
B	8.63	7.14	-1.45	-16.84

According to the above table, we can see that Group 'A' has got 10.36 average marks in pre-test and Group 'B' has got 8.63. After taking the post-test Group 'A' amplified its marks by 4.45 and reached to 14.81 which is 42.98 percent more than in pre-test. On the other side, Group 'B' has decreased its marks by 16.84 percent and stood at 7.18 in post-test. When we compare both the groups, we can find that Group 'A' has improved 59.82 percent more than Group 'B' in their performance. The difference between the performances of both the groups reveals that Group 'A' is comparatively better than Group 'B'. So it can be concluded that CT methodologies are better than other methodologies in teaching reading and writing.

3.3.2 Girls

The total population of the girls in the research was twenty. They were grouped in such a way that there can be ten in each group. The questions contained of all the levels of cognitive domain i. e. knowledge level to evaluation level and carried twenty-five marks.

Table No. 7
Girls' Performance

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	9.90	14.10	4.20	39.60
B	10.00	10.00	0.00	0.00

The above table shows that the average marks of Group 'A' in pre-test is 9.9 whereas it is 10 of Group 'B'. Group 'A' increased its marks by 4.2 and reached to 14.1 but it is not applicable to Group 'B'. Group 'B' stood still in performance and that is 10. The figure shows that Group 'B' has not improved its thinking skills. In case of Group 'A' it has increased its marks by 39.60 percent that is more than that of Group 'B'. Their difference in performance is of 39.60 percent. On the basis of the fact, it can be said that CT methodologies and strategies are better than other methodologies in teaching reading and writing.

3.4 Performance of Boys in Different Level of Test Items as a Whole

The test items belonging to different level of questions were used to find out the performance of both boys and girls. There were four items in the test which carried twenty five marks. Finding words consisted of six marks as well as questions. Choose the best answer was of four marks with four questions. Making words item was of three marks and the last item of answer the question was of twelve marks.

3.4.1 Performance of Boys in Knowledge Level

In this level of questions the researcher asked words to be found from the passage. There were altogether six words of having similar or opposite meaning. The questions carried six marks in total.

Table No. 8

Performance of Boys in Knowledge Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	1.72	3.27	1.55	89.47
B	1.18	1.45	-0.27	-23.07

As we study the above table, we find that the boys in Group 'A' have secured 1.72 marks in average in the pre-test but it 1.18 of the boys in Group 'B'. Group 'A' has increased its marks in post-test by 1.55 and reached to 3.27 in total which is 89.47 percent whereas it is not applicable in Group 'B'. The latter group has secured 1.45 in post-test by increasing 0.27 marks that is 23.07 percent. The difference between their percent is 112.54. On the basis of the fact of the performances above, we can claim that Group 'A' is better than Group 'B'.

3.4.2 Performance of Boys in Comprehension Level

In this level of test items, the researcher asked the question to choose the best answer and decide the statements either true or false. There were altogether four questions. Each question carried one mark and four marks in total.

Table No. 9

Performance of Boys in Comprehension Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	1.36	3.36	2.00	146.66
B	1.90	2.45	0.55	28.57

The above table shows that the boys in Group 'A' have secured 1.36 marks in average in the pre-test but it is 1.90 of the boys in Group 'B'. Group 'A' has increased its marks in post-test by 2.00 marks and reached to 3.36 in total which is 146.66 percent

more whereas it is not applicable in Group 'B'. The latter one has secured 2.45 in post-test by increasing 0.55 marks that is 28.57 percent more than pre-test. The difference between their percent is 118.09. On the basis of the fact of the performances above we can come to the conclusion that Group 'A' is better than Group 'B' as well as CT is better than other methods.

3.4.3 Performance of Boys in Application Level

In this level of test items, the researcher asked them to make their own sensible sentences and write their own ideas about the situation. There were altogether three words/phrases. The questions carried three marks in total.

Table No. 10
Performance of Boys in Application Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	1.81	1.54	-0.27	-15
B	1.00	0.63	-0.37	-36.36

The very table reveals that the boys in Group 'A' have secured 1.81 marks in average in the pre-test but it is 1.00 of the boys in Group 'B'. Here in this level both Group 'A' and Group 'B' have not improved even though the earlier one has decreased its marks in post-test by 0.27 marks only and reached to set back to 1.54 in total which is 15 percent less whereas it is not applicable in Group 'B'. The latter one has secured 0.63 in post-test by decreasing 0.37 marks that is 36.36 percent less than pre-test. The difference between their percent is 21.36. On the basis of the fact of the performances above, we can be clear that Group 'A' is better than Group 'B' as well as CT strategies are better than other strategies.

3.4.4 Performance of Boys in Analysis, Synthesis and Evaluation Level

In this level of test items the researcher asked them different six questions to answer having higher level of thinking. The questions carried two marks each and twelve in total. Here the researcher has evaluated the answer not on the basis of correctness but on new and inventive ideas.

Table No. 11

Performance of Boys in Analysis, Synthesis and Evaluation Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	5.45	6.63	1.18	21.66
B	4.54	2.63	-1.91	-42.00

The above table reveals that the boys in Group 'A' have got 5.45 marks in average in the pre-test but it is 4.54 marks of the boys in Group 'B'. Here, in this level Group 'A' has improved 1.18 marks in post-test and reached to 6.63 marks in total which is 21.66 percent more than Group 'B'. The latter group has secured 2.63 in post-test by decreasing 1.91 marks that is 42.00 percent less than its own pre-test marks. The difference between their percent is 63.66. On the basis of the fact of the performances above, it is obvious that Group 'A' is better than Group 'B' as well as CT strategies are better than other strategies.

3.5 Performance of Girls in Different Levels of Test Items as a Whole

The total population of girls was ten in each. Both the groups were asked the same test items for the two level of thinking; lower level of thinking and higher level of thinking. For lower level of thinking, the researcher asked the test items of knowledge,

comprehension and application but he asked analysis, synthesis and evaluation test items for higher level of thinking.

3.5.1 Performance of Girls in Knowledge Level

In this level of questions the researcher asked words to be found from the passage. There were altogether six words of having similar or opposite meaning. The questions carried six marks in total.

Table No. 12

Performance of Girls in Knowledge Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	0.7	3.0	2.3	328.57
B	1.6	3.1	1.5	93.75

As we study the above table we find that the girls in Group 'A' have secured 0.7 marks in average in the Pre-test but it 1.6 of the girls in Group 'B'. Group 'A' has increased its marks in Post-test by 2.3 and reached to 3.00 in total which is 328.57 percent more than in the Pre-test whereas it is not applicable equally in Group 'B'. The latter one has secured 3.1 in Post-test by increasing 1.5 marks that is 93.75 percent more than the marks of Pre-test. The difference between their percent is 234.82. On the basis of the fact of the performances above we can come to the conclusion that Group 'A' is better than Group 'B' although the total average marks of Group 'B' is better than Group 'A'.

3.5.2 Performance of Girls in Comprehension Level

To study the comprehension level of girls in both groups, the researcher asked the test items as choose the best answer and decide the statements either 'true' or 'false'.

There were altogether four questions. The questions carried four marks in total.

Table No. 13

Performance of Girls in Comprehension Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	2.1	3.5	1.4	66.66
B	1.8	3.2	1.4	77.77

This table reveals that the girls in Group 'A' have secured 2.1 marks in average in the pre-test while the girls in Group 'B' girls have got 1.8 marks. Group 'A' has increased its marks in post-test by 1.4 marks and reached to 3.5 marks in total which is 66.66 percent more whereas it is not applicable in Group 'B'. The latter group has secured 3.2 marks in post-test by increasing the equal marks which is 1.4 percent more than pre-test. The difference between their percent is 10. On the basis of the fact of the performances above, it is true that Group 'A' has done better than Group 'B'.

3.5.3 Performance of Girls in Application Level

The researcher asked both the groups make their own sensible sentences and write their own ideas about the situation. There were altogether three words/phrases. The questions carried three marks in total.

Table No. 14

Performance of Girls in Application Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	1.5	1.3	-0.2	-13.33
B	1.7	0.3	-1.4	-82.35

The very table shows that the girls in Group 'A' have secured 1.5 marks in average in the pre-test whereas it is 1.7 marks of the girls in Group 'B'. Here, in this level, both the groups Group 'A' and Group 'B' have not improved even though the earlier one has decreased its marks in post-test by 0.2 marks only and set back to 1.3 marks in total which is 13.33 percent less than its pre-test marks but it is not applicable to Group 'B'. The latter one has secured 0.3 marks in post-test by decreasing 1.4 marks that is 82.35 percent less than its pre-test marks. The difference between their percent is 75.69. It tells that Group 'B' has deteriorated 69.02 percent more than Group 'A'. On the basis of the fact of the performances above, we can say that Group 'A' is better than Group 'B' as well as CT strategies are better than other strategies.

3.5.4 Performance of Girls in Analysis, Synthesis and Evaluation Level

In this level of test items, the researcher asked them different six questions to answer having higher level of thinking. The questions carried two marks each and twelve in total. Here, the researcher has evaluated the answer not on the basis of correctness but on new and inventive ideas.

Table No. 15

Performance of Girls in Analysis, Synthesis and Evaluation Level

Group	Avg. Sc. in Pre-test	Avg. Sc. in Post-test	Marks Diff.	Diff. in %
A	5.6	6.2	0.6	10.71
B	4.9	3.4	-1.5	-30.61

The above table says that the girls in Group 'A' have got 4.6 marks in average in the pre-test but it is 4.9 marks of the girls in Group 'B'. If we compare the result of pre-test only, Group 'B' is 0.3 marks better than Group 'A' in average. But after taking post-test Group 'A' has improved by 0.6 marks in post-test and reached to 6.2 marks in total which is 10.71 percent more than its pre-test marks. The latter group has secured 3.4 marks in post-test by decreasing 1.5 marks that is 30.61 percent less than pre-test. The difference between their percent is 41.32. Group 'A' has improved in higher level of thinking but Group 'B' could not. Relating to the fact of the performances above, it can definitely be said that Group 'A' is far better than Group 'B' as well as CT strategies are better than other strategies.

3.6 Level-wise Comparison in General

The test items were categorized into two levels of thinking; lower level of thinking and higher level of thinking. The lower level thinking questions include knowledge level, comprehension level, application level questions whereas higher level of thinking questions consist of analysis, synthesis and evaluation. To test the knowledge of students the researcher asked the test items like find the similar/ opposite words. In the same way the researcher asked fill in the blank items and true or false items to test comprehension. He asked to make sentences and an imaginary question for application. And different questions were asked to test different level of ability as analysis, synthesis and evaluation.

Table No. 16

Performance of both Groups in Lower and Higher Level of Thinking in General

Grou p	Avg. Sc. In Pre-est		Avg. Sc. In Post-est		Diff. in marks		Diff. in %	
	Low	High	Low	High	Low	High	Low	High
A	97	116	168	135	71	19	72.16	17.09
B	96	98	116	63	20	-35	17.70	-33.33

The above table reveals the fact that Group 'A' has been able to secure 97 marks in lower level of thinking while Group 'B' has got 96 marks in the pre-test. If we compare these marks to the obtained marks of same students with post-test marks Group 'A' has got 168 marks in lower level thinking. Group 'A' has scored 71 marks more than its pre-test marks. It is 72.16 percent more than the pre-test marks. In case of higher level thinking, Group 'A' has got 116 marks in pre-test which is increased by 19 marks and reached to 135 marks. It is increased by 17.09 percent. But in another side if we see the result of Group 'B' it is 96 marks in pre-test in lower level of thinking that is increased by 20 marks and reached to 116 marks. Here, Group 'B' is progressive because it has increased its marks by 17.70 percent but it is not as equal as Group 'A'. While comparing the higher level of thinking of Group 'B' it is 98 marks in the pre-test but it is decreased by 35 marks and placed at 63 marks which is 33.33 percent less than its pre-test marks. Here, Group 'A' is progressive in both levels of thinking but it is not applicable to Group 'B', therefore, it is quite clear that CT strategies are better than other strategies.

3.6.1 Level-wise Comparison of Performance of the Boys

Table No. 17
Performance of Boys in level-wise Thinking

Group	Avg. Sc. in Pre-test		Avg. Sc. in Post-test		Diff.		Diff. in %		
	Level	Low	High	Low	High	Low	High	Low	High
A		54	60	90	73	36	13	66.00	21.66
B		45	50	50	29	05	-21	11.11	-42.00

The above table tells that the boys in Group 'A' have secured 54 marks in lower level thinking in the pre-test. It is 45 marks of the boys in Group 'B'. Group 'A' has increased its marks in post-test by 36 marks and reached to 90 marks which is 66.00 percent more than its pre-test marks whereas it is not quite applicable in Group 'B'. The latter one has secured 50 marks in post-test by increasing 05 marks that is 11.11 percent more than the marks of pre-test. In the higher level of thinking, Group 'A' has increased its marks by 13 and placed at 73 marks from 54. It is 21.66 percent more than pre-test. On the other side Group 'B' has got 21 marks less in post-test and placed at 29 marks from 50 which is 42 percent less than its pre-test marks. The difference between their percent in lower level thinking is 55.55 while it is 63.66 in higher level of thinking. On the basis of the fact of the performances above, we can say that the boys in Group 'A' are better than the boys in Group 'B'.

The very analysis made in table no. 15, 16 and 17 of the performances of girls and boys helps the researcher to get the conclusion that CT strategies are better than any other strategies in developing both level of thinking skills; lower and higher level of thinking.

3.6.2 Level-wise Comparison of Performance of the Girls

Table No. 18
Performance of Girls in Level-wise Thinking

Group	Avg. Sc. in Pre-test		Avg. Sc. in Post-test		Diff.		Diff. in %	
	Low	High	Low	High	Low	High	Low	High
A	43	46	79	62	36	16	83.72	10.71
B	51	49	66	34	15	-15	-29.41	-34.61

As we study the above table, we find that the girls in Group 'A' have secured 43 marks in lower level thinking in the pre-test but it is 51 marks of the girls in Group 'B' which is 8 marks more than Group 'A' in the beginning. But Group 'A' has increased its marks in post-test by 36 marks and reached to 79 marks in post-test which is 83.72 percent more than in the pre-test whereas it is not quite applicable in Group 'B'. The latter one has secured 66 marks in post-test by increasing 15 marks that is 29.41 percent more than the marks of Pre-test. In the higher level of thinking the latter group has decreased its marks by 15 and placed at 34 from 49. It has decreased its marks by 34.61 percent. The difference between their percent in lower level thinking is 54.31 while it is 44.71 percent in higher level of thinking. On the basis of the fact of the performances above, it is clear that the performance of girls in Group 'A' is better than the girls in Group 'B'.

CHAPTER: FOUR

FINDINGS AND RECOMMENDATIONS

4.1 Findings

As we know that there are many methodologies for language teaching but the researcher has made an attempt to compare the effectiveness of CT methodologies with other methodologies in teaching thinking skills in English as a foreign language. The total context of teaching or using CT methodologies is used in Surkhet. All the findings of the study have been derived from the analysis and interpretation of data. And the data were analyzed using simple statistical tools such as average and percent. The findings of the study can be summarized as follows:

- a. The students in Group 'A' increased their marks in post-test by 39.51 percent but Group 'B' decreased their marks by 4.97 percent when we study their performances. The difference between their performances is of 44.48 percent. This justifies that CT methodologies are better than other methodologies in teaching thinking skills in EFL classrooms.
- b. The level wise analysis reveals the fact that in all the levels (lower level: knowledge, comprehension, application and higher level thinking: analysis, synthesis and evaluation) CT methodologies are better than other methodologies in teaching thinking skills in EFL classrooms.
- c. The gender-wise analysis shows that the boys in Group 'A' increased their marks by 42.95 percent but the boys in Group 'B' decreased their marks by 16.8 percent. The difference between their performances is of 59.75 percent. So, on the basis of the performances, we can conclude that CT methodologies are more effective than other methodologies in EFL classrooms. If we see the progress of the performance

of the girls in Group 'A' it is 42.95 percent from the pre-test. But the girls in Group 'B' are static, which means 0 percent progress in their performance. It also proves that CT methodologies are far more effective than other methodologies in EFL classrooms.

- d. According to the group-wise result analysis of boys in different level of thinking performance, we can see that boys in Group 'A' performed 67.23 percent better than the boys in Group 'B' in knowledge level. Likewise, the performance of Group 'A' in comprehension level is 118.11, in application 22.09 and in analysis, synthesis and evaluation 63.72 percent better than Group 'B' boys. Here we can again conclude that CT methodologies are far more effective than other methodologies in EFL classrooms.
- e. As analyzed group-wise result of girls in different level of thinking we can find the fact that the girls in Group 'A' obtained 234.82 percent more marks than the girls in Group 'B' in knowledge level. In the same way, Group 'A' performed 89.01 percent better in application level, 65.39 percent better in analysis, synthesis and evaluation level. But it is not applicable in comprehension level of thinking. Here the girls in Group 'B' obtained 11.11 percent more marks than Group 'A' girls.

In the group-wise result analysis of both levels; lower and higher level of thinking it can be found that Group 'A' obtained 52.36 percent more marks than Group 'B' in lower level thinking. It further reveals that Group 'A' got 52.08 percent more marks than Group 'B' in higher level of thinking test items.

- f. In the level-wise (lower level thinking and higher level thinking) analysis of boys in both Group 'A' and Group 'B' we can see that Group 'A' boys secured 55.55 percent more marks in lower level thinking test items whereas it is 63.66 percent more in higher level thinking than the boys in Group 'B'.

On the other side the girls in Group 'A' obtained 54.31 percent more marks in lower level of thinking test items than the girls in Group 'B'. Group 'A's performance is

better than Group 'B'. If we analyze the result of the higher level thinking test items, we find that the girls in Group 'A' got 65.39 percent more marks than the girls in Group 'B'.

On the basis of the above findings, it can be concluded that CT methodologies are far more effective in teaching reading than other methodologies in the Nepalese EFL classrooms.

4.2 Recommendations

Depending on the evidence of the findings of the research, the researcher has provided the given recommendations for pedagogical implications.

1. After the data collection, analyses of the very research CT methodologies are found more effective than other methodologies in teaching different thinking skills. The experimental group, Group 'A' was taught with different strategies of CT methodology performed better whereas controlled group, Group 'B' was taught usually couldn't perform as good as former group. So CT methodologies are to be applied in teaching reading in general.
2. CT methodologies are found more effective in all the comparisons as general, level wise and gender wise comparisons. Therefore, CT methodologies are to be used in teaching reading.
3. During the course of study, the students in Group 'A' who were taught with CT methodologies were found more active in the classroom in comparison to the students in Group 'B' who were taught usually because CT methodologies are not only participatory but also mind friendly. So CT methodologies are to be applied to make the students more active and friendly.
4. The syllabus designers and the textbook writers have to pay their attention to encourage the application of CT methodologies of teaching while designing syllabuses and writing textbooks. But it can't be meant that other methodologies are no more significant in teaching.
5. The size of the class and number of students are to be appropriate for the easy access of the teacher to check the performance of the students individually. But

this method can be used in the large class as well because it is more flexible in lesson planning and teaching. It is recommended that the classroom size and number of students should be appropriate for using CT methodologies.

6. While using CT methodologies assume pure democratic culture in reaching a conclusion through discussion, and hot debate. We are not following all the norms and values of democracy from the beginning of our life so it was found a bit difficult to manage students in reaching a conclusion with appropriate reasoning and logic in debate and prepare the common view of the group. These methodologies can be used to in democratic culture and these can be used to promote democratic culture and system.
7. For making the reading classrooms more interactive and live the texts are supposed to be interested to local need, their daily use and about their own culture oriented. So it is suggested that the textbook writers and syllabus designers have to pay due attention to the above facts.
8. The activities given in the textbooks should be enriched with all levels of thinking skills and the students have to get ample opportunities to practice all level of thinking exercises as reading is a kind of thinking skill.
9. It is found that CT methodologies are more effective and student-centered in teaching reading in EFL classrooms so it is strongly recommended that teachers are supposed to use these methodologies to make learning for living skills.
10. CT methodologies are found to be more effective in developing both lower level of thinking and higher level thinking skills which use the both right and left hemisphere of the brain that enthuse the students in creative activities. Therefore, it is recommended that these methodologies are to be considered best in enhancing different skills through reading.
11. The seat planning has to be maintained accordingly so as to discuss and debate among the students and classroom is expected to equip with materials to facilitate the students' need.
12. The very study was conducted in one of the more or less equipped school in Surkhet named SOS Hermann Gmeiner Higher Secondary School. The number

of the students was limited to forty two. Moreover it was a periodic study for twenty eight classes. So it cannot be claimed that CT methodologies are equally beneficial and applicable to all the contexts and schools in Nepal while teaching reading. For the reliability and the validity of the very research study's findings, it is recommended that several other studies have to be carried out.

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APPENDICES

Appendix: A

School: Hermann Gmeiner H. Secondary School, Kalagaon – 3, Surkhet

Class: VII

F.M: 25

Sub: English

Time: 1 hr.

Test: Pre-test

Attempt all the questions.

1. Read the passage and do the activities.

On a very tall pillar, overlooking the city stood the beautiful statue of the Happy Prince. It was covered all over with thin layers of fine gold. His eyes were two brilliant sapphires. A large red ruby glowed on the hilt of the sword. Every one in the town admired the statue.

One night a little swallow flew over the city. His friends had gone away to Egypt several weeks ago. He had stayed behind because he was in love with a reed. It was getting colder and the swallow could not stay any longer. So he asked the reed, “Will you come with me to Egypt? It is warm and sunny there.” But the reed never spoke a word. It only shook its head for she would not leave her comfortable river bank.

‘Then I am off to the pyramids. Goodbye!’ cried the sad swallow and away he flew.

All through the day he flew over the land and at night he came to the city. He was looking for a place to stay in the night when he saw the statue standing on a tall pillar.

‘I will stay here. It provides a fine view and plenty of fresh air.’ Do the little swallow settled between the feet of the Happy Prince. But as he got ready to sleep, a large drop of water fell on him.

‘How strange! He cried. ‘The sky is clear and bright with stars and yet it is raining. I must look for another place.

A. Read the passage above and find the similar words.

1x6=6

- a) radiant b) elegant c) praised d) seeking e) post
f) shone

B. Choose the best answer from the following options.

1x4=4

a) The little swallow went to _____

- i) the city of Egypt
ii) forest
iii) the pyramids
iv) river bank

b) Swallow's friends had _____.

- i) already gone
ii) been going
iii) went together with him
iv) gone away many weeks ago

c) The reed lived _____.

- i) in the city
ii) under the statue
iii) in the river bank
iv) in the pyramids

d) The reed _____ with Swallow.

- i) went
ii) said she would go
iii) didn't want to go
iv) said she wouldn't go

2. Use the words in your own sentences meaningfully.

1x3=3

- a) overlooking b) plenty of c) settle d) shook

3. Answer the questions in short.

2x6=12

- a) Why did the swallow go to the city?
b) Where did he stay in the city?
c) Was the swallow happy there? How can you say?
d) Where do you think the large drop of water fell on him from?
e) How can we search happiness in our life? Write some two ways.
f) Would it be better if the swallow had stayed with the reed? Why?

Best of efforts

Test Items

School: Hermann Gmeiner H. Secondary School, Kalagaon – 3, Surkhet

Class: VII

F.M: 25

Sub: English

Time: 1 hr.

Test: Post-test

Attempt all the questions.

1. Read the passage and do the activities.

In the days that followed Terry realized that he wasn't feeling too bad but others were. Instead of cheering him he found that he had to cheer up people. Even his coach who came to see him seemed to feel bad!

His coach had brought for him a magazine article. It was about Dick Traum who also had an artificial leg and ran in the New York marathon. And this set him thinking. He said, 'Well if he can do it, I can too! In fact I can do more than run in the New York marathon.'

'I have a dream, a challenge for myself. I am going to run across the whole of Canada, from sea to sea. It will be my *Marathon of Hope*, and all the money raise will go for cancer research.'

Terry began to prepare for his marathon. He started by running short distances but within a month he was able to run a mile.

To test himself Terry entered the Prince George marathon. He intended to run only half the distance but his friend Doug kept saying, 'Come on, Terry. You can finish.' Terry did reach the finish line.

After running 3,000 miles in training, Terry boarded a plane for Newfoundland on Canada's east Coast. He was ready, to take the challenge of a 5,300 mile run across Canada.

On April 12th 1980, the day Terry started the run, his family and many others watched him on television in the morning news. He told reporters that his challenge was to raise a million dollars for cancer research. He hoped to run 20 to 40 miles a day and be home at Port Coquitlam in six months time.

A. Find the words from the passage. 1x6=6

- a) led (O) b) real (O) c) contest (S) d) funds(S)
e) began (S) f) explore (S)

B. Decide whether the statements are ‘True’ or ‘False’. 1x4=4

- a) Terry went to Canada’s east coast by plane.
b) He hoped to return back home in sixteen months.
c) He ran for cancer research and to inspire people.
d) Traum ran in the Prince George Marathon.

2. If you were in place of Terry what you would do in your life. 3

3. Answer the questions in short. 2x6=12

- a) Why had Terry’s coach brought him a magazine?
b) Why did he run a race named ‘Marathon of Hope’?
c) What was his first race that he completed?
d) Why do you think people eagerly watched him running on the television?
e) He said that he had to cheer up people. Why do you think he had to do so?
f) Do you also want people remember you like Terry? If so what do you like to do for that?

Best of efforts

Appendix: B Marking Scheme

(Pre-test)

Question no. 1

1x6=6

A. Find the similar words item.

<u>Question No.</u>	<u>Answer</u>
i)	brilliant
ii)	beautiful
iii)	admired
iv)	looking for
v)	pillar
vi)	glowed

B. Choose the best answer item.

1x4=4

<u>Question No.</u>	<u>Answer</u>
i)	The city of Egypt
ii)	Gone away many weeks ago
iii)	In the river bank
iv)	Didn't want to go

Question no. 2

3

Use the words in your own sentences meaningfully.

Making sense – 0.5 marks

Correctness - 0.5 marks

Question no. 3

2x6=12

- a) getting colder and couldn't stay (1.5 content,0.5 correctness)
- b) between the feet of Happy Prince (1.5 content,0.5 correctness)
- c) no, no reed with him and a large drop of water fell on him
- d) any logical idea – 1.5 and correctness – 0.5
- e) two ideas with reasons 1.5 and correctness – 0.5
- f) reasons with proof 1.5 and correctness – 0.5

Marking Scheme

(Post-test)

Question no. 1

C. Find the similar words item.

1x6=6

<u>Question No.</u>	<u>Answer</u>
i)	followed
ii)	artificial
iii)	challenge
iv)	money
v)	started
vi)	research

D. True/ False items.

1x4=4

<u>Question No.</u>	<u>Answer</u>
i)	True
ii)	False
iii)	True
iv)	False

Question no. 2

3

Logical ideas – 2 and correctness 1

Question no. 3

2x6=12

- a) to inspire Terry to run (1.5 content,0.5 correctness)
- b) For cancer research (1.5 content,0.5 correctness)
- c) Prince George Marathon (1.5 content,0.5 correctness)
- d) any logical idea – 1.5 and correctness – 0.5
- e) two ideas with reasons 1.5 and correctness – 0.5
- f) reasons with proof 1.5 and correctness – 0.5

Appendix: C

Lesson Plan -1 (Group – A)

School: SOS Hermann Gmeiner HSS, Kalagaon-Surkhet

Class: VII

Date: 2068/02/16

Subject: English

Time: 45 minutes

Topic: Tenzing Norgay Sherpa

No. of Stds: 21

Lesson objectives:

By the end of the lesson, students will be able to:

- read the text correctly;
- find the words/answer;
- say/ write about Tenzing.

Duration

45 minutes

Materials

Headway English, p. 33, **Tenzing Norgay Sherpa**.Cassette player and usual

Timing / Aims

Stages/ activities of students

1. Anticipation phase-(20 Minutes)

Think/pair/share

Task for students:

At first teacher plays the song 'Hamro Tenzing Sherpale'

Strategy: quick-write up

write down some five information about Tenzing;-

1. In pairs, share with your partner the information about Tenzing that you have collected;

2. In pairs make a common list of information and arrange them from his birth;
3. Each pair, share your information about Tenzing in the class and write them down on the board.

2. Building knowledge

Phase(25 minutes)

Strategy: Close reading with text coding

1. writes these words on the boards- chomolungma, summit, monastery, Darzeeling, fortunate etc;
2. provides some symbols like, * +,-, ,Ø for those words and explains them;
3. asks them to mark and guess their meaning;
4. finalizes the meaning;
5. provides such questions;
 - Who was Namgyal Wangdi?
 - When and where was Tenzing born?
 - Why did he go to Darzeeling?
 - At which time did he succeed climbing Mt. Everest?
 - What encouraged him to climb mountain?
6. divides class into five groups and asks to find single answer within five minutes;
7. asks them to present in the class.

At last the teacher asks them to collect some more three information than the text.

Group – B

School: SOS Hermann Gmeiner HSS, Kalagaon-Surkhet

Class: VII

Date: 2068/02/16

Subject: English

Time: 45 minutes

Topic: Tenzing Norgay Sherpa

No. of Stds: 21

1. Specific objectives:

At the end of the lesson the students will be enabled to:

- read the text correctly,
- find the words,
- answer the questions in short.

2. Teaching materials:

- daily used materials,
- word cards,
- flannel board.

3. Teaching learning activities:

The teacher will discuss some of the words from the text and will read the text loudly. He will ask them to read the text and ask them to find the words given in exercise no. 2.

The teacher will help them finding the correct word from the text and if the students are unable to find the word he will write them on the board.

Again he asks them to read the text and asks the questions given in class discussion. If the answer is wrong the teacher will make correction.

4. Evaluation

The teacher will ask them individually to read the text. He will ask some of the words of having similar or opposite words. He can ask some questions from the text book.

5. Homework

He will assign them to write all the answer of the questions.

Appendix: D Pre-test

a) Marks obtained by the students in Pre-test

S.N.	Name	Full Marks	Marks Obtained
1.	Angat Nath Yogi	25	14
2	Anita Gharti	25	12
3	Asmita Sunar	25	19
4	Badal Lama	25	03*
5	Bikram Rawat	25	14
6	Bishal Karki	25	07*
7	Bishnumaya Nepali	25	03*
8	Dipa Singh	25	03*
9	Laxmi Thapa	25	10
10	Lochan Dhakal	25	15
11	Manish Kandel	25	09*
12	Manita Karki	25	10
13	Puspa Pant	25	03*
14	Roshan Balmiki	25	13
15	Sandesh B. Shah	25	10
16	Sandesh Kadel	25	18
17	Sapana Sinjapati	25	16
18	Sobikshya Thapa	25	10
19	Srijana Adhikari	25	15
20	Sushant Gurung	25	03*
21	Topendra Singh	25	08*
22.	Alisha Nepali	25	09*
23.	Aliza Nepali	25	13
24.	Balaram Khati	25	13
25.	Bikash Khadka	25	12
26.	Bishwa Rawal	25	14
27.	Dal Bdr. Salami	25	08*

28.	Elina Oli	25	15
29.	Hritik Rawal	25	14
30.	Kamala Pun	25	07*
31.	Mahendra Chaudhary	25	01*
32.	Manisha Salami	25	03*
33.	Milan Basyal	25	10
34.	Niruta Oli	25	12
35.	Pratikshya Kashyap	25	06*
36.	Puja Sunar	25	12
37.	Purna Chaudhary	25	04*
38.	Saraswati K.C.	25	19
39.	Subash Shahi	25	14
40.	Subash Sunar	25	08*
41.	Sudip Thapa	25	02*
42.	Yagya Sarki	25	05*

b) Ranking Procedure and Group Division

Ranking Procedure

Pre-test rand	Group 'A'	Group 'B'
1 – 10	odd	even
11 – 20	even	odd
21 – 30	odd	even
31 – 40	even	odd
41 – 42	odd	even

Group Division

Group 'A'

S.N.	Name	Full Marks	Marks Obtained
1.	Angat Nath Yogi	25	14
2	Anita Gharti	25	12
3	Asmita Sunar	25	19
4	Badal Lama	25	03*
5	Bikram Rawat	25	14
6	Bishal Karki	25	07*
7	Bishnumaya Nepali	25	03*
8	Dipa Singh	25	03*
9	Laxmi Thapa	25	10
10	Lochan Dhakal	25	15
11	Manish Kandel	25	09*
12	Manita Karki	25	10
13	Puspa Pant	25	03*
14	Roshan Balmiki	25	13
15	Sandesh B. Shah	25	10
16	Sandesh Kadel	25	18
17	Sapana Sinjapati	25	16
18	Sobikshya Thapa	25	10
19	Srijana Adhikari	25	15
20	Sushant Gurung	25	03*
21	Topendra Singh	25	08*

Group 'B'

S.N.	Name	Full Marks	Marks Obtained
1.	Alisha Nepali	25	09*

2	Aliza Nepali	25	13
3	Balaram Khati	25	13
4	Bikash Khadka	25	12
5	Bishwa Rawal	25	14
6	Dal Bdr. Salami	25	08*
7	Elina Oli	25	15
8	Hritik Rawal	25	14
9	Kamala Pun	25	07*
10	Mahendra Chaudhary	25	01*
11	Manisha Salami	25	03*
12	Milan Basyal	25	10
13	Niruta Oli	25	12
14	Pratikshya Kashyap	25	06*
15	Puja Sunar	25	12
16	Purna Chaudhary	25	04*
17	Saraswati K.C.	25	19
18	Subash Shahi	25	14
19	Subash Sunar	25	08*
20	Sudip Thapa	25	02*
21	Yagya Sarki	25	05*

c) Pre-test and Post-test Result of Group 'A'

S.N.	Name	Full Marks	Pre-test Obt. marks	Post-test Obt. marks
1.	Angat Nath Yogi	25	14	14
2	Anita Gharti	25	12	13
3	Asmita Sunar	25	19	19

4	Badal Lama	25	03*	10
5	Bikram Rawat	25	14	19
6	Bishal Karki	25	07*	16
7	Bishnumaya Nepali	25	03*	05*
8	Dipa Singh	25	03*	13
9	Laxmi Thapa	25	10	12
10	Lochan Dhakal	25	15	22
11	Manish Kandel	25	09*	12
12	Manita Karki	25	10	15
13	Puspa Pant	25	03*	12
14	Roshan Balmiki	25	13	13
15	Sandesh B. Shah	25	10	15
16	Sandesh Kadel	25	19	19
17	Sapana Sinjapati	25	16	16
18	Sobikshya Thapa	25	10	20
19	Srijana Adhikari	25	15	16
20	Sushant Gurung	25	03*	11
21	Topendra Singh	25	08*	12
	Total	525	216	304

d) Pre- test and Post-test Result of Group ‘B’

S.N.	Name	Full Marks	Pre-test	Post-test
1.	Alisha Nepali	25	09*	13
2.	Aliza Nepali	25	13	12
3.	Balaram Khati	25	13	10
4.	Bikash Khadka	25	12	05*
5.	Bishwa Rawal	25	14	10

6.	Dal Bdr. Salami	25	08*	03*
7.	Elina Oli	25	15	15
8.	Hritik Rawal	25	14	10
9.	Kamala Pun	25	07*	09*
10.	Mahendra Chaudhary	25	01*	03*
11.	Manisha Salami	25	03*	04*
12.	Milan Basyal	25	10	08*
13.	Niruta Oli	25	12	11
14.	Pratikshya Kashyap	25	06*	03*
15.	Puja Sunar	25	12	13
16.	Purna Chaudhary	25	04*	05*
17.	Saraswati K.C.	25	19	15
18.	Subash Shahi	25	14	09*
19.	Subash Sunar	25	08*	12
20.	Sudip Thapa	25	02*	04*
21.	Yagya Sarki	25	05*	05*
	Total	525	201	179

e) Pre-test and Post test Result of Group 'A' Boys

S.N.	Name	Pre-test	Post test
1.	Angat Nath Yogi	14	14
2.	Badal Lama	03	10
3.	Bikram Rawat	14	19
4.	Bishal Karki	07	16
5.	Lochan Dhakal	15	22
6.	Manish Kandel	09	12
7.	Roshan Balmiki	13	13
8.	Sandesh B. Shah	10	15
9.	Sandesh Kadel	18	19

10.	Sushant Gurung	03	11
11	Topendra Singh	08	12
	Total	114	163

f) Pre-test and Post-test Result of Group 'B' Boys

S.N.	Name	Pre-test	Post test
1.	Balaram Khati	13	10
2.	Bikash Khadka	12	5
3.	Bishwa Rawal	14	10
4.	Dal Bdr. Salami	08	3
5.	Hritik Rawal	14	10
6.	Mahendra Chaudhary	01	3
7.	Milan Basyal	10	8
8.	Subash Shahi	14	9
9.	Subash Sunar	08	12
10.	Sudip Thapa	02	4
11.	Yagya Sarki	05	5
	Total	95	79

g) Pre-test and Post-test Result of Group 'A' Girls

S.N.	Name	Pre-test	Post test
1.	Anita Gharti	12	13
2.	Asmita Sunar	19	19
3.	Bishnumaya Nepali	03	5
4.	Dipa Singh	03	13
5.	Laxmi Thapa	10	12
6.	Manita Karki	10	15
7.	Puspa Pant	03	12
8.	Sapana Sinjapati	16	16
9.	Sobikshya Thapa	10	20
10.	Srijana Adhikari	15	16

	Total	99	141
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h) Pre-test and Post-test Result of Group 'B' Girls

S.N.	Name	Pre-test	Post test
1.	Alisha Nepali	09	13
2.	Aliza Nepali	13	12
3.	Elina Oli	15	15
4.	Kamala Pun	07	9
5.	Manisha Salami	03	4
6.	Niruta Oli	12	11
7.	Pratikshya Kashyap	06	3
8.	Puja Sunar	12	13
9.	Purna Chaudhary	04	5
10.	Saraswati K.C.	19	15
	Total	100	100

Appendix: E

Table No. 1
Comparison in General

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	14	14	0	45.00	1.	09*	13	4	44.44
2.	12	13	1	8.33	2.	13	12	-1	7.69
3.	19	19	0	0.00	3.	13	10	-3	23.07
4.	03*	10	7	233.30	4.	12	05*	-7	58.33
5.	14	19	5	35.71	5.	14	10	-4	28.57
6.	07*	16	9	128.57	6.	08*	03*	-5	62.5
7.	03*	05*	2	66.66	7.	15	15	0	0.00
8.	03*	13	10	333.33	8.	14	10	-4	28.57
9.	10	12	2	20.00	9.	07*	09*	2	28.57

10.	15	22	7	16.66	10.	01*	03*	2	200.00
11.	09*	12	3	33.33	11.	03*	04*	1	33.33
12.	10	15	5	50.00	12.	10	08*	-2	20.00
13.	03*	12	9	300.00	13.	12	11	-1	8.33
14.	13	13	0	0.00	14.	06*	03*	-3	50.00
15.	10	15	5	50.00	15.	12	13	1	8.33
16.	19	19	0	0.00	16.	04*	05*	1	25.00
17.	16	16	0	0.00	17.	19	15	-4	21.05
18.	10	20	10	200.00	18.	14	09*	-5	35.71
19.	15	16	1	6.66	19.	08*	12	4	50.00
20.	03*	11	8	266.66	20.	02*	04*	2	100.00
21.	08*	12	4	50.00	21.	05*	05*	0	0.00
Total	216	304	80		Total	201	179	-22	
Av. sc	10.28	14.47	4.19	37.03	Av. sc	9.57	8.52	-1.05	-10.94

Table No. 2
Comparison in Knowledge Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	00	04	4	400	1.	03	04	1	44.44
2.	00	02	2	200	2.	00	04	4	7.69
3.	01	04	3	300	3.	03	01	-2	23.07
4.	02	04	2	100	4.	01	02	1	58.33
5.	00	04	4	400	5.	03	02	-1	28.57
6.	00	03	3	300	6.	01	01	0	62.5
7.	00	00	0	00	7.	04	03	-1	0.00
8.	00	03	3	300	8.	02	03	1	28.57
9.	00	02	2	200	9.	00	03	3	28.57
10.	02	04	2	100	10.	00	00	0	200.00
11.	03	04	1	33.33	11.	00	03	3	33.33
12.	03	04	1	33.33	12.	00	02	2	20.00

13.	01	04	3	300	13.	04	03	-1	8.33
14.	03	02	-1	-33.33	14.	00	00	0	50.00
15.	04	03	-1	25	15.	03	05	2	8.33
16.	02	03	1	50	16.	00	02	2	25.00
17.	00	04	4	400	17.	02	04	2	21.05
18.	00	04	4	400	18.	00	00	0	35.71
19.	02	03	1	50	19.	03	02	-1	50.00
20.	00	00	0	0	20.	00	03	3	100.00
21.	03	05	2	66.66	21.	00	00	0	0.00
Total	26	66	40		Total	29	47	18	
Av. sc	1.23	3.14	1.91	153.84	Av. sc	1.38	2.23	0.85	62.06

Table No. 3
Comparison in Comprehension Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	02	02	0	00	1.	02	04	2	100
2.	01	02	1	100	2.	03	04	1	33.33
3.	03	04	1	33.33	3.	03	01	-2	66.66
4.	00	03	3	300	4.	03	02	-1	33.33
5.	02	03	1	50	5.	02	02	0	00
6.	01	04	3	300	6.	00	01	1	100
7.	03	03	0	00	7.	02	04	2	100
8.	01	04	3	300	8.	03	03	0	00
9.	02	04	2	100	9.	00	02	2	200
10.	01	04	3	300	10.	01	01	0	00
11.	03	04	1	33.33	11.	00	01	1	100
12.	03	02	-1	33.33	12.	03	04	1	33.33
13.	01	04	3	300	13.	03	04	1	33.33
14.	03	02	-1	-33.33	14.	00	02	2	200

15.	01	03	2	200	15.	03	04	1	33.33
16.	01	04	3	300	16.	02	03	1	50.00
17.	02	04	2	100	17.	03	04	1	33.33
18.	02	04	2	100	18.	03	03	0	00
19.	03	04	1	33.33	19.	02	04	2	100
20.	00	04	4	400	20.	00	01	1	100.00
21.	01	04	3	300	21.	02	02	0	0.00
Total	36	72	36		Total	40	56	16	
Av. sc	1.71	3.42	1.7	100	Av. sc	1.90	2.66	0.76	62.06

Table No. 4
Comparison in Application Level

Group									
‘A’					‘B’				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	2	02	0	00	1.	01	00	-1	100
2.	02	01	-1	100	2.	00	00	0	33.33
3.	03	02	-1	33.33	3.	00	01	1	66.66
4.	01	01	0	300	4.	00	01	1	33.33
5.	03	02	-1	50	5.	04	02	-2	00
6.	00	01	1	300	6.	00	00	0	100
7.	00	00	0	00	7.	02	01	-1	100
8.	02	02	0	300	8.	03	01	-2	00
9.	02	01	-1	100	9.	03	01	-2	200
10.	02	02	0	300	10.	00	00	0	00
11.	02	02	0	33.33	11.	00	00	0	100
12.	02	01	-1	33.33	12.	02	01	-1	33.33
13.	00	01	1	300	13.	01	00	-1	33.33
14.	03	01	-2	-33.33	14.	04	00	-4	200
15.	03	02	-1	200	15.	02	00	-2	33.33
16.	03	02	-1	300	16.	02	00	-2	50.00

17.	03	01	-2	100	17.	02	01	-1	33.33
18.	00	02	2	100	18.	02	01	-1	00
19.	01	02	1	33.33	19.	00	00	0	100
20.	01	00	-1	400	20.	00	00	0	100.00
21.	00	02	2	300	21.	00	00	0	0.00
Total	35	30	-5		Total	28	10	-18	40.00
Av. sc	1.66	1.42	-0.24	-14.28	Av. sc	1.33	0.47	-0.86	-64.28

Table No. 5
Comparison in Analysis, Synthesis and Evaluation Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	10	06	-4	-40	1.	03	05	2	66.66
2.	09	08	-1	11.11	2.	10	04	-6	-60
3.	12	09	-3	25	3.	05	04	-1	20
4.	00	02	2	200	4.	03	02	-1	33.33
5.	09	10	1	11.11	5.	07	03	-4	57.14
6.	06	08	2	33.33	6.	07	00	-7	-100
7.	00	02	2	200	7.	07	07	0	00
8.	00	04	4	400	8.	06	03	-3	00
9.	06	04	-2	-33.33	9.	04	03	-1	-25
10.	10	12	2	20	10.	00	02	2	200
11.	01	02	1	100	11.	03	00	-3	-300
12.	02	08	6	300	12.	05	01	-4	-80
13.	00	03	3	300	13.	04	04	0	00
14.	04	08	4	100	14.	02	01	-1	200
15.	02	07	5	250	15.	04	04	0	50
16.	12	10	-2	16.66	16.	00	00	-2	50.00
17.	10	07	-3	-30	17.	12	06	-6	-50
18.	08	10	2	25	18.	09	05	-4	-44.44

19.	09	07	-2	22.22	19.	03	06	3	100
20.	02	07	5	250	20.	02	00	0	100.00
21.	00	01	1	100	21.	03	03	0	0.00
Total	112	135	23		Total	99	63	-36	
Av. sc	5.33	6.42	1.09	20.53	Av. sc	4.71	3	-1.71	-36.36

Table No. 6
Group-wise Comparison of Boys

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	14	14	0	0	1.	13	10	3	23.07
2.	03	10	7	233.33	2.	12	5	-7	58.33
3.	14	19	5	35.71	3.	14	10	-4	28.57
4.	07	16	9	77.77	4.	08	3	-5	62.5
5.	15	22	7	46.66	5.	14	10	-4	28.57
6.	09	12	3	33.33	6.	01	3	2	200
7.	13	13	0	0	7.	10	8	-2	20
8.	10	15	5	50	8.	14	9	-5	35.71
9.	18	19	1	5.55	9.	08	12	4	50
10.	03	11	8	266.66	10.	02	4	2	100
11.	08	12	4	50	11.	05	5	0	0
Total	114	163	49		Total	95	79	-16	
Av. sc	10.36	14.81	4.45	42.98	Av. sc	8.63	7.18	-1.45	-16.84

Table No. 7
Group-wise Comparison of Girls

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	12	13	1	8.33	1.	09	13	4	44.44
2.	19	19	0	0	2.	13	12	-1	7.69
3.	03	05	2	66.66	3.	15	15	0	0
4.	03	13	10	333.33	4.	07	09	2	28.57
5.	10	12	2	20	5.	03	04	1	33.33
6.	10	15	5	50	6.	12	11	-1	8.33
7.	03	12	9	300	7.	06	03	-3	50

8.	16	16	0	0	8.	12	13	1	8.33
9.	10	20	10	100	9.	04	05	1	25
10.	15	16	1	6.66	10.	19	15	-4	21.05
Total	101	141	40		Total	100	100	0	
Av. sc	9.9	14.1	4.2	39.60	Av. sc	10	10	0	0

Table No. 8

Comparison of Boys in Knowledge Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	00	4	4	400	1.	03	1	-2	-66.66
2.	02	4	2	100	2.	01	2	1	100
3.	00	4	4	400	3.	03	2	-1	-33.33
4.	00	3	3	300	4.	01	1	0	0
5.	02	4	2	100	5.	02	3	1	50
6.	03	4	1	33.33	6.	00	0	0	0
7.	03	2	-1	-33.33	7.	00	2	2	200
8.	04	3	-1	25	8.	00	0	0	0
9.	02	3	1	50	9.	03	2	-1	-33.33
10.	00	0	0	0	10.	00	3	3	300
11.	03	5	2	66.66	11.	00	0	0	0
Total	19	36	17		Total	13	16	3	
Av. sc	1.72	3.27	1.55	89.47	Av. sc	1.18	1.45	-0.27	23.07

Table No. 9

Comparison of Boys in Comprehension Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	2	2	0	0	1.	03	4	1	33.33
2.	00	3	3	300	2.	02	0	-2	-300
3.	02	3	1	50	3.	02	3	1	50
4.	01	4	3	300	4.	00	2	2	200
5.	01	4	3	300	5.	03	3	0	0
6.	03	4	1	33.33	6.	01	1	0	0
7.	03	2	-1	-33.33	7.	03	4	1	33.33
8.	01	3	2	200	8.	03	3	0	0
9.	01	4	3	300	9.	02	4	2	100
10.	00	4	4	400	10.	00	1	1	100

11.	01	4	3	300	11.	02	2	0	0
Total	15	37	22		Total	21	27	6	
Av. sc	1.36	3.36	02	146.66	Av. sc	1.90	2.45	0.55	28.57

Table No. 10
Comparison of Boys in Application Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	02	02	0	0	1.	0	01	01	100
2.	01	01	0	0	2.	0	01	01	100
3.	03	02	-01	-33.33	3.	4	02	-02	-20
4.	00	01	01	100	4.	0	0	0	0
5.	02	02	0	0	5.	3	01	-02	6.66
6.	02	02	0	0	6.	0	0	0	0
7.	03	01	-02	-66.66	7.	2	01	-01	-50
8.	03	02	-01	-33.33	8.	2	01	-1	-50
9.	03	02	-01	-33.33	9.	0	0	0	0
10.	01	0	-01	-100	10.	0	0	0	0
11.	00	02	02	200	11.	0	0	0	0
Total	20	17	-03		Total	11	07	-04	
Av. sc	1.81	1.54	-0.27	-15	Av. sc	01	0.63	0.37	-36.36

Table No. 11
Comparison of Boys in Analysis, Synthesis and Evaluation Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	10	06	-04	-40	1.	05	04	-01	-20
2.	00	02	02	200	2.	03	02	-01	-33.33
3.	09	10	01	11.11	3.	07	03	-04	57.14
4.	06	08	02	33.33	4.	07	00	-07	-100
5.	10	12	02	20	5.	06	03	-03	-50
6.	01	02	01	100	6.	00	02	02	200
7.	04	08	04	100	7.	05	01	-04	-80
8.	02	07	05	250	8.	09	05	-04	-44.44
9.	12	10	-02	-16.66	9.	03	06	03	100
10.	02	07	05	250	10.	02	00	-02	-100
11.	04	01	-03	-75	11.	03	03	00	00
Total	60	73	13		Total	50	29	-21	
Av. sc	5.45	6.63	1.18	21.66	Av. sc	4.54	2.63	-1.91	-42

Table No. 12
Group-wise Comparison of Girls in Knowledge Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	00	02	02	200	1.	03	04	01	33.33
2.	01	04	03	300	2.	00	04	04	400
3.	00	00	0	0	3.	04	03	-01	-25
4.	00	03	03	300	4.	00	03	03	300
5.	00	02	02	200	5.	00	03	03	300
6.	03	04	01	33.33	6.	04	03	-01	-25
7.	01	04	03	300	7.	00	00	0	0
8.	00	04	04	400	8.	03	05	02	66.66
9.	00	04	04	400	9.	00	02	02	200
10.	02	03	01	50	10.	02	04	02	100
Total	7	30	23		Total	16	31	15	
Av. sc	0.7	03	2.3	328.57	Av. sc	1.6	3.1	1.5	93.75

Table No. 13
Group-wise Comparison of Girls in Comprehension Level

Group									
'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	01	02	01	100	1.	02	04	02	100
2.	03	04	01	33.33	2.	03	04	01	33.33
3.	03	03	0	0	3.	02	04	02	100
4.	01	04	03	300	4.	00	02	02	200
5.	02	04	02	100	5.	00	01	01	100
6.	03	02	-01	-33.33	6.	03	04	01	33.33
7.	01	04	03	300	7.	00	02	02	100
8.	02	04	02	100	8.	03	04	01	33.33
9.	02	04	02	100	9.	02	03	01	50
10.	03	04	01	33.33	10.	03	04	01	33.33
Total	21	35	14		Total	18	32	14	
Av. sc	2.1	3.5	1.4	66.66	Av. sc	1.8	3.2	1.4	77.77

Table No. 14
Group-wise Comparison of Girls in Application Level

Group									
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'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	02	01	-01	-50	1.	01	00	-01	-100
2.	03	02	-01	-33.33	2.	00	00	00	00
3.	00	00	00	00	3.	02	01	-01	-50
4.	02	02	00	00	4.	03	01	-02	-66.66
5.	02	01	-01	-50	5.	00	00	00	00
6.	02	01	-01	-50	6.	01	00	-01	-100
7.	00	01	01	100	7.	04	00	-04	-100
8.	03	01	-02	-66.66	8.	02	00	-02	-200
9.	00	02	02	200	9.	02	00	-02	-200
10.	01	02	01	100	10.	02	01	-01	-50
Total	15	13	-02		Total	17	03	-14	
Av. sc	1.5	1.3	-0.2	-13.33	Av. sc	1.7	0.3	-1.4	-82.35

Table No. 15
Group-wise Comparison of Girls in Analysis, Synthesis and Evaluation Level
Group

'A'					'B'				
S.N	Pre.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %
1.	09	08	-01	-11.11	1.	03	05	02	66.66
2.	12	09	-03	-25	2.	10	04	-06	-60
3.	00	02	02	200	3.	07	07	00	00
4.	00	04	04	400	4.	04	03	-01	-25
5.	06	04	-02	-33.33	5.	03	00	-03	-100
6.	02	08	06	300	6.	04	04	00	00
7.	00	03	03	300	7.	02	01	-01	-50
8.	10	07	-03	-30	8.	04	04	00	00
9.	08	10	02	25	9.	00	00	00	00
10.	09	07	-02	-22.22	10.	12	06	-06	-50
Total	56	62	06		Total	49	34	-15	
Av. sc	5.6	6.2	0.6	10.71	Av. sc	4.9	3.4	-1.5	-30.61

Table No. 16
Group-wise Comparison in Lower Level Thinking
Group

'A'					'B'				
S.N	Pre.	Post	Dif.	D. %	S.N.	Pre	Post	Dif.	D. %

1.	04	08	04	100	1.	06	08	02	33.33
2.	03	05	02	66.66	2.	03	08	05	166.66
3.	07	10	03	42.85	3.	06	05	-01	-16.66
4.	03	08	05	166.66	4.	03	03	00	00
5.	05	09	04	80	5.	09	05	-04	-44.44
6.	01	08	07	700	6.	01	03	02	200
7.	03	03	00	00	7.	08	08	00	00
8.	03	09	06	200	8.	08	07	-01	-12.5
9.	04	06	02	50	9.	03	06	03	100
10.	05	10	05	100	10.	01	01	00	00
11.	08	10	02	25	11.	00	04	04	400
12.	08	07	-01	12.5	12.	05	07	02	40
13.	02	09	07	350	13.	08	07	-01	-12.5
14.	09	05	-04	-44.44	14.	04	02	-02	-50
15.	08	08	00	00	15.	08	09	01	12.5
16.	06	09	03	50	16.	04	05	01	25
17.	05	09	04	80	17.	07	09	02	28.57
18.	02	10	08	400	18.	05	04	-01	-20
19.	06	09	03	50	19.	05	06	01	20
20.	01	04	03	300	20.	00	04	04	400
21.	04	11	07	175	21.	02	02	00	00
Total	97	167	70		Total	96	113	17	
Av. sc	4.61	7.95	3.34	72.16	Av. sc	4.57	5.38	0.81	17.70

Table No. 16
Group-wise Comparison in Higher Level Thinking

Group									
‘A’					‘B’				
S.N	Pre.	Post	Dif.	D. %	S.N.	Pre	Post	Dif.	D. %
1.	10	06	-04	-40	1.	03	05	02	66.66
2.	09	08	-01	-11.11	2.	10	04	-06	-60

3.	12	09	-03	-25	3.	05	05	00	00
4.	00	02	02	200	4.	03	02	-01	-33.33
5.	09	10	01	11.11	5.	07	05	-02	-28.57
6.	06	08	02	33.33	6.	07	00	-07	-100
7.	00	02	02	200	7.	07	07	00	00
8.	00	04	04	400	8.	06	03	-03	-50
9.	06	06	00	00	9.	04	03	-01	-25
10.	10	12	02	20	10.	00	02	02	200
11.	01	02	01	100	11.	03	00	-03	-100
12.	02	08	06	300	12.	05	01	-04	-80
13.	01	03	02	200	13.	04	04	00	00
14.	04	08	04	100	14.	02	01	-01	-50
15.	02	07	05	250	15.	04	04	00	00
16.	12	10	-02	-16.66	16.	00	00	00	00
17.	10	07	-03	-30	17.	12	06	-06	-50
18.	08	10	02	25	18.	09	05	-04	-44.44
19.	09	07	-02	-22.22	19.	03	06	03	100
20.	02	07	05	250	20.	02	00	-02	-100
21.	04	01	-03	-75	21.	03	03	00	00
Total	117	137	20		Total	99	66	33	
Av. sc	5.57	6.52	0.95	17.09	Av. sc	4.71	3.14	-1.57	-33.33

Table No. 17
Comparison of Boys in Lower and Higher Level

Group															
'A'									'B'						
Lower level					Higher level				Lower level					H	
S. N	Pr.	Po.	Dif	D. %	Pr.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %	Pr	P
1.	04	08	04	100	10	06	-04	-40	1.	06	06	00	00	05	04
2.	03	08	05	166.66	00	02	02	200	2.	03	03	00	00	03	02
3.	05	09	04	80	09	10	01	11.11	3.	09	07	-02	-22.22	07	03
4.	01	08	07	700	06	08	02	33.33	4.	01	03	02	200	07	06
5.	05	10	05	100	10	12	02	20	5.	08	07	-01	-12.5	06	03
6.	08	10	02	25	01	02	01	100	6.	01	01	00	00	00	02
7.	09	05	-04	-44.44	04	08	04	100	7.	05	07	02	40	05	01
8.	08	08	00	00	02	07	05	250	8.	05	04	-01	-20	09	03
9.	06	09	03	50	12	10	-02	-16.66	9.	05	06	01	20	03	06
10.	01	04	03	300	02	07	05	250	10.	00	04	04	400	02	06
11.	04	11	07	175	04	01	-03	-75	11.	02	02	00	00	03	02
To	54	90	36		60	73	13		Tot.	45	50	05		50	29
AS	4.9	8.18	3.28	66.66	5.45	6.63	1.18	21.66	A. S	4.09	4.54	0.45	11.11	4.54	2.6

Table No. 18
Comparison of Girls in Lower and Higher Level

Group															
'A'									'B'						
Lower level					Higher level				Lower level					H	
S. N	Pr.	Po.	Dif	D. %	Pr.	Po.	Dif.	D. %	S.N.	Pre	Po.	Dif.	D. %	Pr	P
1.	03	05	02	66.66	09	08	-01	11.11	1.	06	08	02	33.33	03	03
2.	07	10	03	42.85	12	09	-03	-25	2.	03	08	05	250	10	04
3.	03	03	00	00	00	02	02	200	3.	08	08	00	00	07	01
4.	03	09	06	200	00	04	04	400	4.	03	06	03	100	07	02

5.	04	08	04	100	06	04	-02	-33.33	5.	00	04	04	400	03	00
6.	08	07	-01	-12.5	02	08	06	300	6.	08	07	-01	-12.5	04	04
7.	02	09	07	350	00	03	03	300	7.	04	02	-02	-50	02	00
8.	05	09	04	80	10	07	-03	-30	8.	08	09	01	12.5	04	04
9.	02	10	08	400	08	10	02	25	9.	04	05	01	25	00	00
10.	06	09	03	50	09	07	-02	-22.22	10.	07	09	02	28.57	12	00
To	43	79	36		56	62	06		Tot.	51	66	15		52	30
AS	4.3	7.9	3.6	83.72	5.6	6.2	0.6	10.71	A. S	5.1	6.6	1.5	29.41	5.2	30