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The Effect of Using DeBono`s Method of Thinking to Enhance Reading Comprehension Ability of Iraqi EFL Learners at Secondary Schools

A Thesis Submitted to the Council of the College of Basic Education \ University of Mustansiriya in Partial Fulfillments of the Requirements for the Degree of Master in Education

(Method of Teaching English As a Foreign Language)

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DEDICATION

To my Father's memory
To my dear mother and benevolent Family
To my beloved soulmate Ahmed and Sweetheart angels Ward , Karar and Judy
To my professors
To everyone who helped me

بِسْمِ اللهِ الرَّحْمَن الرَّحِيمِ

﴿قَالَ رَبِّ إِنِّي أَعُوذُ بِكَ أَنْ أَسْأَلَكَ مَا لَيْسَ لِي بِهِ عِلْمٌ وَإِلَّا تَغْفِرْ لِي وَتَرْحَمْنِي أَكُنْ مِنَ الْخَاسِرِينَ﴾

صدق الله العضيم

List of Abbreviation

STH	Six Thinking Hats
K.W.L	What I Know . What I Want to Know . What I Learn
EG	Experimental Group
CG	Control Group
M	Mean
SD	Standard Deviation
DF	Degree of Freedom

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Abstract

This study aims at investigating the effect of using DeBono`s method of thinking the Six Thinking Hats in enhance reading comprehension ability of the fourth graders at secondary schools in Diyala governorate . To achieve the aim of the study , the following hypothesis has been tested that (There is no statistically significant differences at (á≤0.05) between the mean scores of reading comprehension of the experimental group who is taught reading comprehension according to Six Thinking Hats method and that of the control group who is taught reading comprehension according to the traditional way in the post test) . Thus , an experiment is designed was adopt . the sample of the study consisted of sixty female students from Jueria Bint Al-Harth secondary school for girls (thirty students as an experimental group which are taught reading comprehension by the use of the Six Thinking Hats method and thirty students as a control group which are taught reading comprehension according to the traditional ways during the academic year 2012 -2013. Meanwhile, the subjects of both groups are matched according to their age, level of parents' education , Level of Achievement in English in the Third Intermediate Grade and their scores in the pre-test . A reading comprehension tests (pre& post) are designed and The validity of the tests and the lesson plans have been obtained by exposing them to jury members in the fields of EFL and linguistics. The reliability of the test has been secured by using Kuder Richardson-20 Formula (0.87) . Statistical analysis of data achieved through the test indicates that there are statistically significant differences between the mean scores of the two groups in favour of the experimental group in the post test .

The researcher concludes that using DeBono`s method of thinking the Six Thinking Hats enhance students' performance in reading comprehension and provides them opportunities to actively develop skills that enable them to locate, gather, analyze, critique and apply information in a wide range of contexts as they develop understanding .

In the light of those findings , the researcher suggested some recommendations to Curriculum Designers , Decision Makers , and teachers of English to enhance reading comprehension ability . In the conclusion of this study the researcher are presented some suggestions for further studies .

CHAPTER ONE

Introduction

1.1 The Problem and its Significance

English is an international language used in formal fields such as political , economic, social, and sports conferences. As a language, English has four main skills; listening, speaking, reading and writing. Reading then is a language skill that needs to be interested in especially it is firstly recommended by the Holy Qur'an as it is cited in Surat Al'Alaq Translated by Picktahall (1981: 1-5) (READ IN THE NAME OF YOUR LORD WHO CREATED. HE CREATED MAN FROM A CLOT. READ AND YOUR LORD IS THE MOST HONORABLE, WHO TAUGHT TO WRITE WITH THE PEN. TAUGHT MAN WHAT HE KNEW NOT). Moreover, reading affects and is affected by other language skills which are (listening, speaking and writing). So, human beings spend a lot of time and effort to develop this skill. Thus, any language course devotes a reasonable portion for dealing with reading in the target language, whether it is first or second language (Celce-Murcia, 1991:69).

Goodman (1967 : 129 -36) states that reading is psycholinguistic process in which the reader , guided by the knowledge being read , reconstructs an encoded message by selecting syntactic and semantic cues as he proceeds . The ability to predict or select tentatively the cues is necessary for the comprehension of the material . to Grellet (1981: 7) ,

reading is a constant process of guessing , and what one begins to the text is often more important than what one finds in it .

Development of reading comprehension is a complex process, because it is multi-dimensional. Effective reading comprehension is dependent upon many factors, which relate to the reader, the text, and the act of comprehension (Rupp & Lesaux, 2006). The components of reading comprehension consist of accurately decoding the words, understanding the language to monitor reading, memory skills, vocabulary acquisition, background knowledge, and complex reasoning skills. It is necessary for reading comprehension training to include fluency building and vocabulary acquisition (Mastropieri & Scruggs, 1997: 82) .

Reading efficiency in English as a foreign language includes two main aspects , reading speed and reading comprehension for most second language learners who are already literate in a previous language , reading comprehension is primarily a matter of developing appropriate , efficient strategies . (Brown , 2001 :306) .

Reading comprehension can be understood as the process through which the recognized words are transformed into a meaningful idea (Hoover & Gough, 1990: 44). It is a complex process that requires the activation of numerous cognitive skills (Kintsch, 1998: 106). There are also different depths of understanding (Perfetti et al., 2005) At the most basic level, reading comprehension may involve the picture that comes to mind when reading the word *cat*. It may be as in-depth as the symbolic representation of a cat as having god-like qualities, as is sometimes associated with Ancient Egyptians. Comprehension is the reason for reading; it encompasses the learning, growing, and evolution of ideas that occur as one reads.

This is because any educational system cannot neglect this skill of language and students still practice reading even it is difficult to understand every single word. In the same respect, Brown (1994: 102) reported that reading comprehension has been considered as an active process rather than a passive one where the reader interacts with the text and others before, during and after the reading task. Now researchers, as well as teachers are beginning to recognize the need for a specific instructional focus on reading comprehension (Williams, 2005 : 4).

According to the researcher`s observation and interviews with a number of English teachers in secondary schools , the teachers states that being able to read a foreign text with degree of comprehension is still something difficult for Iraqi learners . Teachers often complain of the standard of Iraqi English language learners in reading , and claim that their level of achievement in reading comprehension is low . So, there is a sever need for adopt new methods and techniques of teaching reading such as six thinking hats method . In the present study the researcher is going to examine the effect of using (six thinking hat method) in teaching reading comprehension , hoping that it will enhance the students ability in reading comprehension at secondary school .

The Six Hats improves reading comprehension and provides readers with a tool to interact with the author, to have promoted a conversation between the reader and the author. Cognitive and metacognitive strategies promote the conversation, so the reader can question the author. (Vacca , 2006 : 290).

The ‘Six Hats’ method addresses critical and creative thinking, and can be used flexibly in any classroom situation. The white hat focuses on facts, figures, and information available. The black hat and yellow hat thinking could stimulate critiquing an idea by assessing its positive and negative aspects.

The green hat is more creative, focusing on exploration of new and alternate ideas. The blue hat is reflective and requires appraisal of the thinking that has led up to the decision-making. It is specifically thinking about thinking. The red hat involves considering feelings in relation to the idea(McGregor,2007:141).

Edward De Bono's Six Thinking Hats are increasingly used in schools to help students develop thinking skills. Wells(2009 :1) vouches for their effectiveness with learners of all ages . Serrat (2009 : 3) mentions that The six thinking hats method provides a common language that works in different cultures . it promotes collaborative thinking , sharpens focus , facilitates communication reduces conflict , enables thorough evaluations , improves exploration , foster creativity and innovation , save time , and boosts productivity .

Rebecca (2009 : 104) as sited in Al-Bahadli 2011 states that the six thinking hats method was developed as a framework for the individual or group solving of a chosen problem . A hat covers the head -the centre of human mind. Different colors symbolize different ways of thinking which are employed during the solving process. When we change one hat to another, we virtually switch the mode of thinking too. The group leader instructs participants what hat they have to put on and what questions to answer. The method serves as a brainstorming activity that produces new solutions, possibilities and ideas. It also helps define the situation and take positive, negative and emotional aspects into consideration. This tool improves decision making and planning of subsequent steps. (de Bono, E. 1985).

As the hats activate the brain with color , using them create a delightful and meaningful experience for those who teach , learn and lead thinking , the six thinking hats provide a self-monitoring strategy , enhances writing process and reading comprehension , offers a process for problem solving and

decision making , and fosters independence , leadership , and teamwork . (Farr , 2000 : 36)

1.2 The Aim

The aim of this study is to identify the effect of using DeBono`s method of thinking Six Thinking Hats (STH) on enhancing the ability of reading comprehension of Iraqi EFL learners at secondary schools .

1.3 Research Questions

The main questions of this study are :-

1. What are the reading comprehension abilities intended to be developed for the 4th grade EFL Iraqi learners at secondary schools .
2. To what extent is six thinking hats effective on enhancing reading comprehension Abilities in English for Iraqi 4th preparatory grade ?

1.4 Hypotheses of the Study

It is hypothesized that There is no statistically significant differences at (á≤0.05) between the mean scores of reading comprehension of the experimental group who is taught reading comprehension according to Six Thinking Hats method and that of the control group who is taught reading comprehension according to the traditional way in the post test .

1.5 Statement of the Study

The statement of the study can be stated in the following major question:

What is the effectiveness of using DeBono`s Method of Thinking to Enhance reading comprehension Ability of Iraqi EFL Learners at Secondary Schools?

1.6 Significance of the Study

This study may be significant because it :

1. may improve the performance of the 4th preparatory students in their reading comprehension abilities.
2. may contribute in helping teachers of English by adopting the new approaches such as six thinking hats in teaching reading and other language skills in order to help in solving some problems in teaching and learning English in Iraq .
3. may encourage students to be good readers through motivating them by developing their abilities in the reading skills .
4. may be important to curriculum designers to consider six thinking hats method .

1.7 Limits of the Study

This study is limited to :

1- Iraqi EFL 4th Grade female students at the secondary school in Diyala governorate to the academic year 2012-2013.
2- Teaching five reading comprehension texts which called literature spot that taken from the students` textbooks of book 8, (Iraq opportunities 2012)
3- Enhance students ability in reading comprehension by using DeBono`s method of thinking (Six Thinking Hats).

1.8 Definitions of Basic Terms

Effect :- Good (1973 :195) defines it as the effect of the experimental factor under controlled conditions on the control

variables .

DeBono`s Method of Thinking (The Six Thinking Hats) :- According to Sarsani (2005 : 189) , it is six modes of thinking and are directions to think rather labels for thinking . that is , the hats are used proactively rather than reactively .

Enhance :- to improve something, or to make it more attractive or more valuable . (www.macmillandictionary.com/dictionary/american)

Reading Comprehension - techniques for improving students' success in extracting useful knowledge from text (Mayer, 1990 . 34)

Harris (1982 : 266) also states that " Reading comprehension is the linguistic process of reconstructing the intended message of a text by translating its lexical and grammatical information into meaning units that can integrated with the reader`s knowledge and cognitive structures " .

Operational Definitions

Effect :- is the positive chance of learners` ability in mastering reading comprehension caused by using Six Thinking Hate (STH) .

The Six Thinking Hats :- is a teaching technique that comprises six colored hats that represent way of thinking which are used to develop EFL students performance in reading comprehension at secondary school .

Reading comprehension: is a process that requires how to decode through the development of an extensive repertoire of sight words, learning the meanings of vocabulary words encountered in the texts, and learning how to abstract meaning from text. It represents how well readers understand literal comprehension which concentrates on explicit meaning and

inferential comprehension which concentrates on implicit meaning in the reading text.

1.9 Research Procedures

The following procedures will be followed in order to answer the questions of the study and investigate the hypotheses:

1. reviewing literature and previous studies related to reading comprehension abilities and DeBono`s method of thinking ,
2. choosing the units of reading comprehension in English book (Iraq opportunities book 8) for Iraqi learners at 4th preparatory as a sample for the study,
3. designing the instruments of the study which are:

a. color hats (white , green , red , blue , black , yellow)
b. pre & post test include the reading comprehension skills, and
c. lesson plan based on the teacher's guide and the lesson plan based on the six thinking hats method ,

4. consulting the specialists and considering their comments and opinions for checking validity of the instruments (b and c) ,
5. applying the pre-test on a pilot study to find the validity and reliability of the test,
6. choosing the sample of EFL students from fourth – years preparatory schools and divided it into an experimental group and control one,
7. applying the pre-test on the sample of the study and computing the results,
8. implementing the experiment according to the six thinking hats on the experimental group while the control one will be taught by the traditional way ,
9. applying the post-test on the experimental and control groups and recording the results,
10. analyzing the data statistically by using appropriate statistical analysis,

11. interpreting the results of the study and giving suggestions and recommendations in the light of the study results.

CHAPTER TWO

Theoretical Back ground
Reading Comprehension
2.0 An Introductory Note

This chapter includes various aspects related to reading and reading comprehension .

2.1 Definition of Reading Comprehension

There is no agreed definition of reading comprehension. Smith (1985: 100) affirms that “there is no point in looking for a single definition of reading . We should not expect that a single definition for reading will be found, let alone one that throws light on its mystery " . In the same vein, Grabe (1991: 378) believes that “simple definitions typically misrepresent complex cognitive process such as reading ". Alderson (2000 :1) writes that “an overview of the study of the nature of reading is impossible” .

As defined by Partnership for Reading (2005), Reading comprehension is understanding a text that is read, or the process of "constructing meaning" from a text. Comprehension is a "construction process" because it involves all of the elements of the reading process working together as a text is read to create a representation of the text in the reader's mind.

There are many different definitions for reading either as a process or a skill. For more clarification the researcher will display some of these definitions below as follows:
The National Institute of Literacy (2009) defined reading as a complex system of deriving meaning from prints (written texts) that all of the following:

- the skills and knowledge to understand how phonemes or speech sounds are connected to prints,
- the ability to read fluently,
- the ability to decode unfamiliar words,
- the development and maintenance of a motivation to read, and
- sufficient background information and vocabulary to foster reading comprehension.

According to Nunan (1993: 82) reading is basically a matter of decoding a series of written symbols into their aural equivalents in the quest for making sense of the text. He called this process as the 'bottom-up' view of reading which is gradually developed as the reader goes on reading.

Reading is comprehension. “Comprehension involves what the reader knows as well as the nature of the text itself. It involves the type of text to be read—narrative, expository, poetry, etc. It involves the purpose for reading” (Rasinski et al. 2000: 1).

It is clear from what has been mentioned above that reading is a complex process including many other processes. It is not just to let eyes physically run on the lines or to pronounce the symbols and words. Therefore , reading is a skill which needs the reader to interact with the text deeply to be perceived and understood culturally. The researcher concludes that the ultimate purpose of reading in English is to achieve comprehension and not to read mechanically and that is comprehension.

Padesky & Greenberger (1995: 272-281) stated that Reading comprehension is the process of readers interacting meaning from text by implementing the prior knowledge and the information found in the text. They also stated that "reading is seen as active process of comprehension where students need to be taught strategies to read more efficiently (e.g., guess from the context, define expectations and make inferences about the text, skim ahead to fill in the context, etc.")

According to Stahl, et al.(1991: 86) reading is a matter of comprehension as reading comprehension involves decoding the writer's words and then using background knowledge to construct an approximate understanding of the writer's message. So, it involves at least two people; the reader and the writer. But the subject here is how the reader comprehends the text. Neumann (2008: 207) said that reading comprehension is basic for learning, working and enjoyment. It is the application of a skill that evolved for other purposes (listening or oral comprehension) to a new form of input text.

According to Grabe (1991: 377) reading comprehension is a psycholinguistic guessing game that involves an interaction between thoughts and language. Reading comprehension is cycles of sampling, predicting, testing and confirming. Through psycholinguistic models the reader approaches a text with expectations based on his knowledge of the subject and he or she derives meaning by relying on his /her knowledge of the language and the subject, as well as his background knowledge.
In brief, the main purpose of reading is to comprehend the text being read. If comprehension does not take place then the activity of reading becomes useless and that reinforces that reading is no longer a receptive skill where the students move from line to line without interacting with the texts but they search for achieving comprehension.

2.2 Factors Influencing Reading

Many factors may influence the skills of reading. Some of the conditions needed by children to make maximum progress in learning to read are physical and mental health, abilities of visual and auditory recognition, intelligence, background of experience, knowledge of the language, desire to read, purpose for reading, interest in reading, confidence and certain other environmental factors.

2.2.1. Physiological Factors

Various Physical deficiencies cause reading disability. Visual, auditory, speech impairments and neurological status are some physical deficiencies, which cause reading disability. Correction of visual defects enables children to learn to read more easily. Both the ability to pronounce words correctly and the ability to understand what they mean is based on a child's language ability, which has been acquired through listening. Although children with severe and extreme hearing losses always have great difficulty in learning how to read, those with lesser impairments often do reasonably well if the hearing loss is identified early and appropriate medical and educational measures are taken (Guy L. Bond et al., 1989: 53).

2.2.2. Sociological Factors

According to Shermlia,J. (1999: 22) Language background depends on the extent of experience. Though the school can do much in the matter of language background and general experiences with speech and vocabulary, reading ability is a concomitant of home conditions. There is a close relation between reading and social factors. Home background can include -

1) economic condition.
2) opportunities for play and for social experiences.
3) nature and amount of speech and language patterns of children particularly as they are influenced by the talk of the parents
4) amount of reading done in the home and the availability of books.
5) quality of family life in terms of inter-parental relationships.

2.2.3. The Psychological Factors

Reading is an interpretation of graphic symbols. It is the identification of the symbols and the association of appropriate

meanings with them. Reading involves an interaction between the writer and the reader. The reader interprets what he reads, associates it with his past experience, and projects beyond it in terms of ideas, relations and categorization. Horn (1937 : 132) points out that the writer does not really convey ideas to the reader; he merely stimulates him to construct them out of his own experiences. The one who takes the most to the printed page gains the most. Therefore the psychological factors such as (Interest , Intelligence , Reading readiness , Attitude towards reading , Cognitive style etc .) may influence the reading competence of the pupils. (Shermlia ,1999: 23)

2.2.4. Teacher Related Factors

Reading is a complex process made of many interrelated skills and abilities. Success in teaching children to read depends on the teacher. The teacher who is inept because of poor training, lack of experience or a slavish devotion to inflexible routine, is unable to adjust reading instruction to the varied needs of the students (Guy L. Bond et al., 1989: 86).

A comprehension lesson has two interrelated areas. They are the thematic and linguistic. Thematic content of a comprehension lesson is composed of the ideas expressed in the linguistic fabric of the lesson. The linguistic area covers the lexical items and structures, which constitute the linguistic body of the lesson . (Verma, 1976 : 10)

The objectives of teaching a comprehension lesson are:

- to enable the pupils to understand the ideas inherent in the linguistic fabric of the lesson (a piece of writing or passage)
- to enable them to recall, analyze and classify the ideas expressed in the passage
- to enable them to understand contextual meanings of lexical items and structures fitted into the build-up of the passage
- to enable them to understand the usage of lexical and structures involved

- to enable their penchant for reading with understanding (K. P. Verma, 1976: 16).

2.3 Models of Reading

Hudson (2007 : 31) as sited in Al-Qudairy (2011 : 14) states that , It is important to trace the historical development of reading comprehension models, which will help in understanding the reading process in a better and deeper way. However, it is also important to recognize that "the notion that there can be a single model for reading across tasks, genre, and purpose is doubtful" .

2.3.1 Bottom-up Theory

According to Pearson and Stephens (1994), reading was seen in the mid- 1960s as a perceptual process: first readers decode letters in a printed text into sounds, then they listen to these sounds and understand the words. In fact, reading was seen as a similar skill to listening: the eye works only as a decoder of the written text, and comprehension happens by listening. This view of reading made it a prerequisite for teachers to teach phonetics to their students if they wanted them to understand what they read. A well-known example of such theories is Gough's bottom-up theory (1972), where reading is seen as a linear process in which letters are identified one by one and then converted to sounds; each letter is held in the memory until the next letter is identified; when words are recognized, they, too, are held in the memory until the meaning of the sentence and eventually the paragraph is understood; the reader is seen as a passive decoder. Comprehension happens when phonemic processing is rapid and efficient, however, there is no need for or effect of prior knowledge. Readers are expected to read all words in the text in order to achieve comprehension. "I see no reason, then, to reject the assumption that we do read letter by letter. In fact, the weight of the evidence persuades me that we do serially from left to right" (Gough, 1972: 335).

According to Samuels and Kamil (1988 : 27) such linear models have a serious deficiency because they "pass

information along in one direction only and do not permit the information contained in a higher stage to influence the processing of a lower stage" . Moreover, according to Stanovich, a serious deficiency of the bottom up theory is the lack of feedback " in that no mechanism is provided to allow for processing stages which occur later in the system to influence processing which occurs earlier in the system" (as cited in Samuels and Kamil, 1988: 31). Furthermore, such models do not explain why the reading process is not affected by context or prior knowledge. In addition to these shortcomings, the bottom up theory "lacks flexibility. The reader has no choice of operations or strategies to deploy in different reading tasks" (Mitchell, 1982: 133-134).

Despite all the criticism it received, the bottom-up theory was an important step in understanding the process of reading comprehension. It inspired other researchers to do more work, which enriched the field of reading in general .

2.3.2 Top-down Theory

As we have seen, bottom-up models start with the printed text and then move up to derive meaning. Top-down models, as we will see, start with higher levels of cognitive processes by making predictions and assumptions and then trying to confirm or reject them by working down to the printed text. Top-down models benefited a lot from the work of Smith (1971) and Goodman (1969, 1982), who emphasized the role of the reader as an essential participant in the reading comprehension process (Alderson, 2000 : 56). .

The model that best represents the top down theory is Goodman's psycholinguistic model of reading (1970). He believes that reading is meaning oriented: readers bring their knowledge and experience when they read. They sample, select from the text and make assumptions and predictions based on cues from letters, words, and syntax, and while they read they accept or reject their predictions by using their knowledge and experience that they had from the beginning Goodman argues that:

" Reading is a selective process. It involves partial use of available minimal language cues selected from perceptual input on the basis of the reader's expectation. As this partial information is processed, tentative decisions are made to be confirmed, rejected, or refined as reading processes" (Goodman, 1976:498).

Goodman does not see readers as passive decoders of letters and words but as active constructors of comprehension (Alderson, 2000 : 66). Thus, comprehension in reading is a continuous and active process from the very beginning until the end. As Goodman (1970 : 108) stated, "Reading is a psycholinguistic guessing game. It involves an interaction between thought and language". Goodman's model has received some criticism. For example, according to Mitchell (1982: 136) the model does not give enough details about the reading process. Also, most of Goodman's work was with children, who have different reading strategies from adults. Mitchell believes that the model is inadequate and does not describe fluent reading. According to Samuels and Kamil, (1988: 32), one of the shortcomings of the top down model is that "for many texts, the reader has little knowledge of the topic and cannot generate predictions".

Bottom-up and top-down theories are almost the opposite of each other, and seem mutually exclusive, but neither of them can fully explain the reading process. Nevertheless, both have some valid insights. In an attempt to build on these insights, a new theory was developed to explain the process of reading comprehension in a better and deeper way. This new theory was called 'interactive'.

2.3.3 Interactive Theory

The term 'interactive' is used to represent different views. According to Grabe (1991), some writers use it to refer to an interaction between the reader and the text, while others refer to the interaction among different reading skills.

Stanovich was one of the researchers who succeeded in combining both bottom up and top down theories in a new model. In his interactive compensatory model, Stanovich (1980) argued that:

interactive models of reading appear to provide a more accurate conceptualization of reading performances than do strictly top down or bottom up models. When combined with an assumption of compensatory processing (that a deficit in any particular process will result in a greater reliance on other knowledge sources, regardless of their level in the processing hierarchy), interactive models provide a better account of the existing data on the use of orthographic structure and sentence context by good and poor readers (as cited in Samuels & Kamil, (1984: 212).

According to Stanovich's model, reading involves a number of processes. Readers who are weak in one process will rely on other processes to compensate for the weaker one. For example, a poor reader who is slow and inaccurate at word identification (bottom up) but knows a lot about the text subject will overcome his or her weakness by relying on his or her knowledge (top down). Thus, the Stanovich model is interactive in the sense that any process, regardless of its position, may communicate (interact) with any other process in order to achieve comprehension. "However, the evidence that such compensation does in fact occur is controversial" (Alderson, 2000: 19).

Perfetti (1985 : 95) proposed the "verbal efficiency theory", which consists of local text processes and text modeling processes. The local text processes are restricted in their interaction. The second part of the verbal efficiency theory, text modeling processes, is more interactive. The reader can make use of his or her background knowledge of the world in order to understand the text.

The verbal efficiency theory works as a theoretical framework for understanding the nature of individual differences in reading comprehension ability. Perfetti's verbal efficiency theory, in its general form, claims that "individual

differences in reading comprehension are produced by individual differences in the efficient operation of local processes. … This is not to say that comprehension differences are not also produced by schema-related processes" (Perfetti, 1985: 100).

Another interactive reading model was proposed by Just and Carpenter (1980: 330). They focused on eye-fixation, which is considered a major difference between reading and listening, because the reader controls the amount and speed of input when reading a text. They also claim that the reader reads almost every single word in the text, which is different from Goodman's view that the reader samples the text to make the right guesses .

Interactive models of reading comprehension have received some criticism. According to Urquhart and Weir (1998), such models are valid only for careful reading, and are not always applicable when English language teachers deal with different kinds of readers. Therefore, more elaboration is needed to explain and describe other types of reading. Eskey & Grabe (1988: 227) argue that models of reading have little to offer because they are "models of the "ideal," completely fluent reader with completely developed knowledge systems and skills; whereas the second language reader is, almost by definition, a developing reader with gaps and limitations in both of these categories" .

2.4 Levels of Comprehension

Reading comprehension is a thinking activity as the reader uses his/her mental abilities to deal with the text. It occurs when extracting meaning from the printed texts or symbols. It is expected that individuals read and get the idea at different levels of comprehension. In other words, levels of comprehension mean different depth of understanding and different analysis of meaning.

Nuttall (1996: 21) reported that there are four kinds of meaning the reader is supposed to get through reading comprehension:-

1- conceptual meaning; the meaning that the word can be on its own.

2- contextual meaning; the meaning that the sentence can form only in a context.

3- pragmatic meaning; the meaning a sentence is only as part of the interaction between the writer and the reader and

4- propositional meaning; the meaning that the sentence can convey on its own.

In the same context, Manzo (1995: 85) divided reading comprehension into three levels:

- reading the lines,
- reading between the lines and
- reading beyond the lines.

Whitten (2004: 1-3) sorted out the reading comprehension into three levels. They are presented in the following hierarchy from the least to the most sophisticated level of reading comprehension:

1- Literal level, what is actually stated in terms of facts and details, rote learning and memorization and surface understanding only.

2- Interpretive level, what is implied or meant, rather than what is actually stated in forms of drawing inferences, tapping into prior knowledge / experience, attaching new learning to old information, making logical leaps and educated guesses and reading between the lines to determine what is meant by what is stated.

3-Applied level, taking what was said (literal) and then what was meant by what was said (interpretive) and then extend (apply) the concepts or ideas beyond the situation in forms of analyzing synthesizing and applying. In this level the reader is

analyzing or synthesizing information and applying it to other information.

San Antonio College (2006: 11) divided the levels of comprehension into four levels as:

1- Literal level: Stated facts-Data- Specifics-Traits-Setting-Timeline/process steps.
2- Inferential level: Builds on facts: prediction-Drawing conclusions-perceiving meaning.
3- Evaluative level: Judgment based on; Reality or Fantasy, Fact or Opinion, Validity- Appropriateness-Worth: acceptable, desirable ideas-comparisons - Cause-Effect.
4- Appreciative level: Response based on; Author's use language .Emotional reaction to author's ideas, language- Author's values-imagery, Style-Author's purpose.

Abu-Shamla, (2009: 23) as sited in El-Kahlout (2010 :43) classified reading comprehension skills into four levels as:

1- Literal level; read and understand exactly what is on the page. The teacher can ask students to find information and ideas that are explicitly stated in the text.

2- Interpretive level; read between the lines. Students read critically and analyze carefully what they read.

3- Critical level; read beyond the lines. At this level students can differentiate between facts and opinion, recognize persuasive statements and judge the accuracy of the given information in the text.

4- Creative level**;** read beyond the lines and create new ideas. This level occurs after the students have understood the text and started to draw new ideas about the text.

2.5 Reading Processes

There is a consensus that reading is the product of decoding and comprehension. Gough et al. (1996) present the multiplicity hypothesis: reading = decoding **&** comprehension.

2.5.1 Decoding

This reading component is sometimes called phonological recoding, or word attack. Whereas decoding refers to deciphering the marks and the symbols to something that can be recognized by a human's brain, phonological recoding means turning the recognized marks into sounds. Word attack addresses the process of interpreting the elements that constitute the word. Usually, the term "decoding" captures words‟ identification process, which involves “transforming graphemes into phonemes and blending the phonemes into pronunciation” (Ehri, 1995: 116). This process involves word perception, i.e. accessing the corresponding word in the mental lexicon.

To decode the words as one unit, readers need to recognize spelling. At the first reading stage, this process is consciously applied and readers need to access the phonological form to obtain the relevant meaning. However, skilled readers usually can access meaning without reference to the phonological code (Carpenter and Just, 1986: 15). That is as soon as the reader develops, his/ her decoding becomes automatised (Field, 2004: 235). The outcome of the decoding process contributes to another process called comprehension.

2.5.2 Comprehension

Reading comprehension refers to the processes in which the reader forms meaning from the symbols presented on the page. After establishing the word, its phonological features, and its grammatical relevance to the other words in the larger structure (a phrase, a sentence, etc.) readers start to grasp the meaning of the sentences. This link is to construct the whole meaning and to get the intended message. This reading process is characterized by being active and complex. Text comprehension often involves processing at different levels. It proceeds from the linguistic level to the semantic level. Then the semantic elements are related to each other to form propositions that constitute what is called text base, which represents the

meaning of the text being processed (Kintsch et al., 2005 : 234). Beyond the elements being dealt with, there are three sub-processes involved in reading comprehension. The first is the perceptual processing, in which the reader focuses on the written text and stores it in the short-term memory. The second stage is the parsing process, in which words and chunks are used to build meaningful blocks. The last is utilization/ elaboration process, in which the meaning grasped from the text is related to the knowledge previously stored in the long-term memory. Language comprehension follows similar steps to any other comprehension process (Anderson, 1983, 1985**)** Factors that affect reading comprehension were examined by many studies in the first decades of the 20th century. While some of these factors are linguistic ones such as vocabulary, grammar, and meaning, others are psychological factors such as intelligence, recalling ability, reading speed, the relationship between memory and meaning of the written items, and reasoning.

The nature of reading comprehension and its structure can be captured in three points. The first is that reading comprehension consists of micro skills, which are separate and do not relate to each other. Within the second, reading micro skills are interrelated and complement each other. Finally, reading comprehension is also seen as one unit skill rather than a composite of smaller ones (Chapman, 1973-1974: 232).

2.6 The Principles of Teaching Reading Lessons in English

Day & Bamford, (1998, 7-8) suggested the following principles to be taken into consideration in any English reading comprehension lesson:

1-Students read as much as possible inside and outside the classroom.

2- A wide variety of material is available to encourage reading.

3- Students select what they want to read due to their interest and level of comprehension.

4- The purposes of reading are usually related to pleasure, information, and general understanding.
5- Dictionaries are rarely used while reading because it makes fluent reading difficult.
6- Reading speed is usually faster than slower as students read texts that they find easily understandable.
7- Teachers orient students to the goals of the program, explain the methodology, keep track of what students read, and guide students in getting the most out of the program.
8- The teacher is a role model of a reader, an active member of the classroom community, and demonstrating what is meant to be a reader.

2. 7 Reading Comprehension Skills

A good reader is someone who has a purpose for reading whether it is to look for specific information or read for pleasure. Since the reader is involved in a complicated thinking process while reading, s/he should use main skills and sub skills that help her/him become purposeful and active readers. These skills make significant gains on reading comprehension lessons. The use of these skills depends on what readers are reading (Shrum & Glison 1994:112-118). Below there are some of the reading skills.

2.7.1 Deduction of the Words

Naturally teachers do not expect students to know every word in the text because not all words are equally important. There are two categories of known words; an active vocabulary which the reader knows well enough to use and a receptive vocabulary that s/he recognizes and can respond to but cannot confidently use. Deduction skills are of two kinds. The first one is using context clues or using the meanings of other words such synonyms and antonyms in the same sentence or paragraph or the meaning of unfamiliar words and phrases . The second skill of deduction is using structural information. This refers to word information such as analysis of the stem and affixes of the

words can help our students get the meaning of unfamiliar words (Nuttall, 1996: 26-28).

2.7.2 Reading in Meaningful Units

One of the factors that determine reading speed and comprehension is the number of words the eyes can see at one glance. The more words students can see and comprehend at one glance, the greater will be their comprehension (Gajdusek& Dommelen , 1993:201-215). Students should be able to read in meaningful units instead of isolated words. i.e. they should have maximum responsibilities for finding the meaning of the text as they move from concrete to increasingly abstract levels on interaction with the text.

2.7.3 Prediction

According to Nutall (1996: 38) prediction will greatly reduce the reliance on visual information, increase reading speed, and enhance comprehension. Students can learn to make predictions based on the title, subtitles, and their knowledge of the context, such as diagrams, graphs, tables, pictures and maps, which serves the same purpose as gestures and facial expressions in conversation. The teacher can help students by asking questions or giving hints or clues to arouse their ability to make prediction about what they are going to read .

2.7.4 Skimming

This skill is useful when we want to determine whether a book or an article merits more careful and thorough reading. Skimming may sometimes be the prerequisite of reading for full understanding. The reader tries to get the general, overall ideas of the whole text. Therefore, the key to skimming is to know where to find the main ideas of different paragraphs and to be able to synthesize them into an organic whole by way of generalization. That is because the main idea of a well organized paragraph is in most cases, either in the first or the last sentence (Hyland, 1996: 107).

2.7.5 Scanning

It is a useful skill to locate specific items of information that the reader needs, such as a date, a figure or a name. The focus is on the information wanted. The key to scanning is to decide exactly what kind of information the reader is looking for and where to find it. A useful way to teach this skill is to ask students to search for information such as a definition or the name of a person or a place asking them to start at the same time and see who the first to find it (Mei-yun, 1993:17).

2.7.6 Distinguish between Facts and Opinion

Readers are able to judge the truth and logic of what they read by following the writer's arguments or by using their previous experiences. By doing this they can make decisions about the worth of reading materials. The teacher can help students form their own opinions towards the topics and issues they read through holding discussion and eliciting various points of view (Goodman& Watson, 1998 : 115-120).

2.7.7 Distinguishing General Statements from Specific Details

Omaggio (1993 : 52) said that general statements usually contain main ideas and specific details in term of explanations and examples support the general statements. Therefore, general statements are more important for comprehension. Very often they are introduced by signal words such as "in general, above all, in conclusions" and it can be seen that students learn to direct their attention to these single words. They should also learn to identify expression of probability, frequently and quantity that indicate different levels of generality**.**

2.7.8 Interpreting Texts

Readers are able to see beyond the literal meaning of words in a passage, using a variety of clues to understand what the

writer is employing or suggesting. Successful interpretation of this kind depends to a large extent on shared prior knowledge together with students ' knowledge of the world. This helps the reader to get the writer's viewpoint given (Harmer, 1999: 202).

2.7.9 Inferences and Conclusion

Comprehension involves understanding not only what is stated explicitly but also what is implied. That is to say, the reader has to make inferences based on what is stated to do. So it requires the ability to analyze and synthesize. Raymond (2009: 103) stated this example, "In the sentence,(Age affects hearing.), we can infer that with age hearing either increases or decreases. Or to read between the lines, or to conclude what the reader has to summarize stated facts." The reader can summarize the main ideas and conclude in the light of his/her understanding.

2.7.10 Evaluation and Appreciation

This is a high level of comprehension skill. The reader not only has to thoroughly understand what he/she has read, s/he also has to analyze and synthesize it so as to form his/ her own opinion, and judgments. To evaluate, the reader has to read critically. In other words; to consider what, why and who has the writer has written to, to determine the author's purpose, consider his/her intended audience, recognize his strengths and weaknesses, and distinguish his opinion from facts. Fry (1991: 67-80) said that "appreciation is different from evaluation. To appreciate, the reader has to understand the author's tone and attitude and to recognize his literary devices such as the use of figures of speech. Evaluation is a useful skill for reading political and academic essays whereas appreciation is useful in reading literary works."

2.8 Purpose in Reading

Smith (1985: 101) as sited in Arab (2009: 23) states that to satisfy their ordinary needs, people engage in diverse kinds of

reading depending on their intentions or purposes and the context or situation they encounter. Instances of these situations are reading books, news papers, news reports, sports scores, weather forecasts, entertainment guides and advertisements, print on television guide, market summaries, restaurant menus, traffic and destination signs, recipes … etc

McShane (2005: 72) classifies readers' purposes into two types: learning about something and finding specific information. The first type of purposes entails searching a subject in a magazine article or in a newspaper, study for a test, reading for pleasure, and learning how to do something like in directions. The second type of reading purposes, on the other hand, involves reading to find specific information such as looking for a date in a list or checking the television listings.

Kucer (2005: 128) contends that the intention behind reading a particular text is tightly related to the way it is read. For him, the reader decides either consciously or unconsciously what he would do to attain his purpose. This leads him to take a "tentative plan of action" to act in a particular way to achieve his intended goal. Smith (1985: 102), on his part, conceives that someone who can read can get much information from the different aforementioned reading situations; yet, much of this data is not gained, for the sole reason that it is not needed. Readers tend to obtain only parts that are relevant to their needs (Smith, *ibid*.).

Alderson (2000: 50-51) elaborates this idea stressing that the purpose for which someone reads a text has a great impact on the process of reading; in other words, the manner in which he reads it and the skills required to be used, and the end product of this reading; that is to say, comprehension of the text and the amount of information being recalled. According to Alderson (*Ibid*.), reading a short story for entertainment at bed time differs in all the three aspects (process, product, recall) from reading a history lecture for an examination the next day. He contends that: The process [of reading] differs for the same reader on the

same text at a different time or with a different purpose in reading. It is even more likely, then, that the process will be different for different readers on different texts at different times and with different purposes. (Alderson, *ibid* : 3)

Not only that the purpose of reading determines the way in which a text is being read, but the importance of any idea in a text is also influenced by the perspective from which it is read. For Kucer (*2005*:162), the reader's goal of reading impacts a great deal his decision about the text's ideas that he considers significant and need to be recalled from less important ones. Be added that, a reader's purpose has a direct and significant influence on how and what meanings are ultimately constructed by the reader who, according to Kucer (*ibid*.), has a say in deciding upon the importance of ideas.

Although we may engage in different kinds of reading for different purposes, the ultimate goal is comprehension. This is obvious since in studying or in trying to follow directions our ultimate goal is to grasp and recall what we have read. Even when we read for pleasure, our aim is to apprehend the material; otherwise, the act of reading would not be profitable. In like manner, reading is conceived as an active and purposeful act (Pressley ,*et.al* . 2000: 4-39). This act has to be selective; the reader should be able to select the information that best suits his needs, not to 'Strive mechanically' to the whole data offered by the writer (Smith, 1985: 103). In this scope, Deleeuw (1965: 13) notes: "if the reader becomes passive, he is inclined to mistake or ignore his purpose. Lack of purpose is a great waste of capacity".

2.9 Flexibility in Reading

Admitting that not all written prints are treated in the same manner, and that the reason behind reading a text impacts significantly the how and the what to extract from it; a reader's purpose also affects his rate of reading a great deal. Readers tend to read everything in the same speed, which causes them to waste time and energy. This is clearly expressed by De leeuw

*(*1965: 13) when he notes: "Readers in general seem to become subdued by the printed word and are not nearly flexible enough in their speed, whatever their knowledge of the subject or the difficulty of the material, this inflexibility wastes capacity".

For Deleeuw (*Ibid*., 47.), as the amount of processing capacity is limited in human beings, the reader has to adjust his reading speed according to text difficulty; reading faster when the content is easy and spending more time when it is difficult. In the same line of thought, Fraser (2004:138) claims that reading rate is not constant. A reader changes it according to his purpose; his rate when he looks for specific information (scanning for a specific phone number in a directory), for instance, is not the same as in studying or preparing for an exam. Furthermore, familiarity with the text, its density, and the number of difficult vocabulary it contains, also affect the reader's speed of reading.

For Carrell, *et. al*., (2002: 234), readers' shift from one reading speed to another should be appropriate to their reading purpose. According to them, reading for learning new information requires a full and detailed understanding from the reader's part. The latter engages his thinking whether the new information matches his general knowledge and fits with the previous information in a text. Reading a novel for pleasure, however, does not demand a careful reading nor remembering details of the story; a reader sometimes skips many pages when he gets bored. Getting information from a manual, on the other hand, involves some forms of scanning for specific information or skimming to have a broad idea of its content. This is clearly stated by Bacon when he states:

" Some books are to be tasted, others to be swallowed, and some few to be chewed and digested, that is, some books are to be read only in parts, others to be read but not curiously, and some few to be read wholly, and with diligence and attention" .
(Bacon; in Billows 1961: 212)

Bacon (*ibid*.) divides reading into four types:
1 - Leisurely light reading.

2 - (a) rapid scanning, as when searching in a newspaper for football scores.

(b) rapid scanning to glean salient points of a chapter or a book (skimming).

3 - serious analytic reflective reading.

4 - deputy reading – abstracts, reports … etc.

As we read for all these purposes, we change our reading speed according to specific reading processes. According to Carver (2000: 24-25), there are five distinct reading processes or "reading gears":

1· Scanning: or searching a text for a specific word. It is the fastest process that involves only lexical access or word recognition.

2· Skimming: The reader processes the text speedily in order to comprehend its gist. It involves semantic encoding as well as lexical access; not only are words recognized, but their meaning within the sentence is determined.

3· Normal, ordinary reading or reading: It involves sentence integration in addition to lexical access and semantic encoding; that is to say, the meanings of individual words in a sentence are assembled into a complete thought which is then related to previously constructed text meaning.

4· Reading to learn: The reader not only constructs the text meaning, but also the understood information needs to be remembered.

5· Reading to memorize: In addition to constructing a meaningful representation of a text, the reader has the added goal of being able to recall the information accurately.

2.10 Assessing Reading Comprehension

Evaluating reading comprehension is undoubtedly not easy to achieve, for reading comprehension assessment may denote testing many levels of understanding. The latter range from testing trivial information directly stated in a printed text to high-level thinking evaluation. According to Kamhi (2005, 205):

"Understanding is clearly not something that simply occurs or does not occur, like turning a light switch on or off. Comprehension is more like continuum with literal, shallow understandings at one end and creative, deeper understanding at the other […] because it has many different levels ranging from literal interpretation to analytic, creative and comparative ones […] it is this aspect of comprehension that makes it difficult to assess. " Kamhi (ibid., 204 -205)

Reading can be assessed by means of different procedures; none of which, however, can be designated as 'the best' method or most suitable one. This is so because no procedure is able to encompass all testing purposes (Alderson, 2000: 203). According to the IELTS Handbook 1999; in Alderson (*ibid.*, 205-206), amid the wide range of question typologies, testers can use to measure learners' reading: multiple choice questions (MCQ), short-answer questions, sentence completion, completing summaries and tables, identifying writer's views and attitudes by 'yes' or 'no' questions, matching lists, and matching phrases. Nonetheless, precedence is given to a number of testing methods, namely the close procedure and multiple choice questions because they are commonly used and known for "convenience and efficiency". The following is a brief discussion of what some assessment method .

2.10.1 Multiple Choice Questions (MCQ)

MCQ technique with four alternatives is the most spread way to test reading. It is widely used in reading textbooks. Munby (1968: xii-xiii; in Alderson, 2000: 204) states that it is possible to utilize the MCQ technique in a way to stimulate learners thinking. That is to say, when the four options or 'distracters' are not clearly distinct from one another, learners are obliged to show a certain sensibility to select the right alternative.

Respondents' wrong choices can be due to their thinking abilities, language abilities or both. MCQ is a well known procedure for assessing readers' text processing abilities. In spite

of the fact that it is a wide spread technique, MCQ has been criticized by many researchers. Some of them view responding to MCQ and text comprehension as completely too independent abilities. To answer MCQ, students can only make recourse to their past experience, knowledge and logical thinking, for example, to reach the right answer by the deletion of remote options. Others maintain that the options provided can draw learners' attention to probable responses they could not find out for themselves (Alderson, *ibid*., 211).

2.10.2 The Cloze Test and Gap Filling Tests

The cloze procedure was widely used during the 1970's as an assessment tool of both language and reading abilities (Alderson, *ibid.*, 205). The benefit of such procedure lies in the easiness one experiences to assign and grade cloze tests. Confusion between these two assessment tools (the cloze test and filling the gap test) is often made by many testers. Alderson (*ibid.*, 208) insists on the importance of clarifying the difference between them. To design either a cloze or a gap filling test, testers go through the following same steps:

1. Choosing a given reading selection.
2. Leaving the first and last two sentences as they are to assist readers' understanding of the passage.
3. Removing a number of words from the rest of the text, and in this way, creating blanks. Testees, later on, fill in these gaps with suitable vocabulary items not necessarily the original ones so that the text makes sense again.

The difference, however, lies in the criterion the words to be left out are selected. In cloze tests, no specific rationale is followed except for the words' original position. That is to say, every 5th, 6th, 8th, 9th, 10th, 11th, or 12th word is omitted regardless of its function in the sentence. In gap filling, on the other hand, importance is awarded to the grammatical and semantic roles the deleted items play. This implies that in gap filling tests, the tester is in control of what is being assessed (meaning or syntax) but not in cloze tests. An alternative to

these tests would include providing testees with options from which they can choose the most appropriate ones. These choices appear in each gap or at the end of the whole text or passage. "The blanked cloze" is how such variant is referred to.

2.10.3 Matching Techniques

These tests are used for measuring the subject`s ability to relate items on a list to other items on another list . It is mostly used for defining things , concept or idea s . Subjects are asked to match these items on the first list with their description on the second list , using the numbers or the letters . scores are assigned objectively to correct marching . (Bernhardt, 1991 : 133).

2.10.4 Ordering Tasks

This assessing tool consists of rearranging jumbled words, sentences, paragraphs or texts to get, respectively, coherent sentences, paragraphs, texts or chapters. (Alderson, *2000*, 219). Ordering tasks is one of the hardest tests to design and build because, sometimes, more than one order is possible and the tester is surprised by an unexpected answer.

2.10.5 Dichotomous Items (True/False Questions)

This is an easy test to construct. True\ False are intended to measure the ability of concerned subjects to distinguish true items from false items on the basis of previously gained knowledge that results from being involved in certain experience . It is constructed in the form of statements which subjects have to decide whether they are true or false . Scores are then assigned to the correct answers only . It is an easy test to construct and score . (Oller , 1983 : 45)

2.10.6 Short Answer Test

As the label suggests, this technique uses "wh" questions to elicit information from readers. The latter reformulate their answers briefly or shortly in their own words. This technique

allows for the interpretation of how well readers have comprehended script better than MCQ do. The difficulty designers experience when constructing short-answer tests lies in the wording of questions via which they should anticipate all alternative responses so that not to be surprised by unexpected ones. The best way to do this is surely to pilot them before the actual use (Alderson, *2000*, 227).

2.10.7 The Free-Recall Test

The free recall test is also labeled "immediate-recall tests" or "an extended production response type" by Bachman and Palmer (1996). Students are given a text they have to read; then it is retrieved aside, and they put in writing as much information as they remember from text content. Worth mentioning, the language used in recalls is the test takers first language. This assessment tool is acknowledged to be not only appropriate for testing comprehension alone but also for uncovering students' information processing, restoring, organizing, retrieving and reorganizing strategies. The most practical way to score recalls is based on the number of ideas recalled from the original version of the text. (Alderson, *ibid.*, 230).

Chapter Three

DeBono`s Method of Thinking (STH)

3.0 introductory note

This chapter includes various aspects related to six thinking hats method and related previous studies .

3.1 Definitions of Six Thinking Hats

Edward de Bono created the method Six Thinking Hats to be used as a tool for evaluating problems and ideas, as a means for groups to think together more effectively, and a means to plan thinking processes in a detailed and cohesive way. In other

words it is about having a group think like a "hive mind" collaborating to reach a common goal. It also aims to remove people's ego from the equation, which can often cause us to prevent effective thinking (de Bono, 1999: 11). Additionally, there is the matter of looking at the problem one way at a time, because thinking about all of them at the same time is nearly impossible and is an ineffective way of solving a problem. Because the brain is sensitized to look for dangers and seeking benefits through a different chemical setting, doing both at the same time is hard (ibid : 12). As an example of sensitization, de Bono states: *"Aeroplanes coming in to land often fly over car parks. If you tell yourself to notice yellow cars, then suddenly the yellow cars stand out and make themselves visible. That is an example of sensitization."* (ibid : 12). This is a perfect example of why separating one's thinking is so effective; handling one thing at a time is much easier than everything at once.

The metaphor of the Six Thinking Hats demonstrates different types of thinking, and is now widely used as a teaching and learning strategy in schools. It is used to encourage students to think about their own thinking (metacognition) and to 'mentally shift gears' to consider different perspectives on a topic (Thomsen, 2011: 16)

According to Edward De Bono the most important factor interfering with thinking is complexity. People want to do several things at the same moment as thinking. That is, there are feelings, information, logic, dreams, and discoveries within thinking and they are combined in one place. While thinking, all these get mixed together and become inseparable. De Bono compared this situation to throwing several balls in the air and trying to catch them. Consequently, to prevent this complexity during thinking De Bono recommends the 'six thinking hats' model. This model is a system of conscious thinking that focuses an individual's thinking in a specific direction for a specific period of time (De Bono ,1997 : 12).

At the foundation of the ‘six thinking hats’ model are six different colored hats which are put on to represent a different point of view in our thinking and which develop creativity. De Bono summarized these hats and the process in this way :

1. The White Hat

The white color represents neutrality. The white hat is concerned about facts, figures, and information. White hat thinking is "a convenient way of asking for the facts and figures to be put forth in a neutral and objective manner" (de Bono, 1999: 27-28). Without argument or opinion, the thinker strives to be more neutral and more objective in the presentation of the information.

White does not take sides and is objective. This hat contains information, data and cases. The purpose is to present information that can be accessed for evaluation and to guide questions about the subject. It is directed to gathering important information and missing information. When this hat is put on these types of questions are asked:

• What kind of information do we have?
• What kind of information do we need?
• What information is missing?
• How can we get the information we need?
• What kind of questions should be asked?

(Kenny, 2003: 107)

Members who are working on the problem under the White Hat need to collect data, group those, and interpret information objectively and accurately. The objectives of the White Hat are:

• Exposition of statistical data
• Concentration on actual facts (and not opinions or beliefs)
• Acknowledgement of incomplete or inaccurate knowledge
• Suggestion of solutions that logically result from the data

Scannell & Burnett (2010: 66) mention some Questions asked from a White Hat's perspective which they are:

1. What are known facts, data, and other information on hand?
2. What are the unknown facts, data, and other information on hand?
3. What additional information is needed?
4. What is there to be learned from this procedure?
5. What is the methodology for obtaining the facts and data needed to reach a solution?
6. Based strictly on the data and information collected, what are the possible, logically-derived solutions?

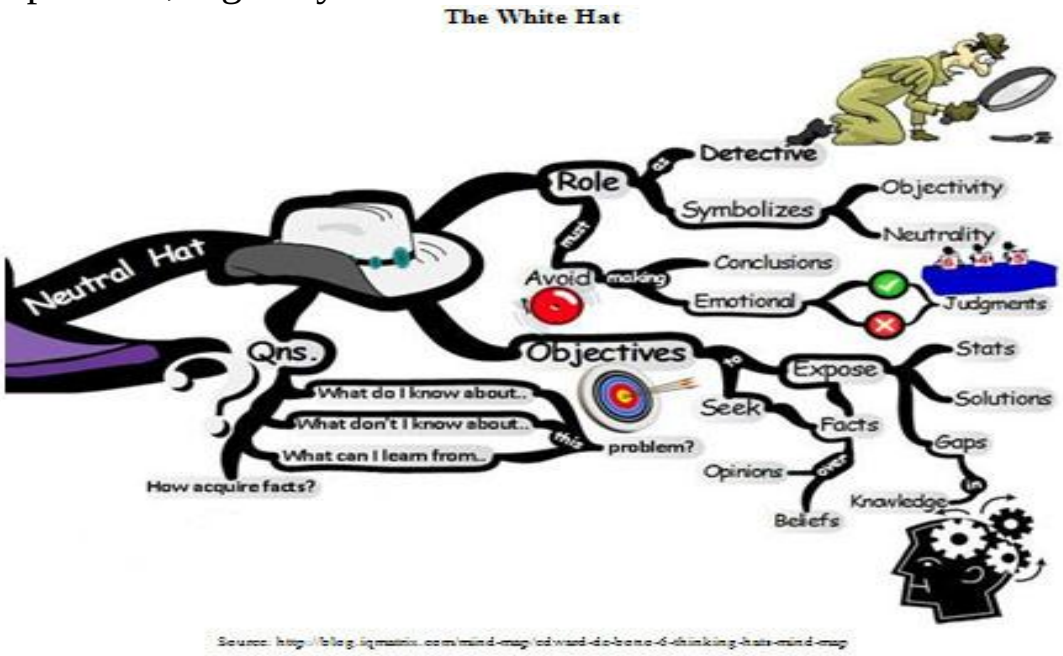

Figure (1) the white Hat

2 .The Yellow Hat

Yellow hat thinking is opposite to black hat thinking. The yellow color represents sunshine, brightness, and optimism. The yellow hat focuses on the positive assessment. Yellow hat thinking is "on exploration and positive speculation. We set out to find the possible benefits. Then we seek to justify them" (de Bono, 1999: 99). With an attempt to put forward soundly based optimism, the thinker seeks to find value and looks for benefits.

Yellow, like the sun, sheds light and is positive. It is about optimistic, hopeful and positive thinking. Efforts are made with

the yellow hat to find the value and advantages of recommendations that are made and to find the best aspects. Thinking is constructive and productive. Concrete proposals and recommendations are made. The questions asked with this hat are these:

• What is the best aspect of this?
• What are its advantages?
• Who can benefit from this?
• How can these advantages be brought to light? (Kenny , 2003: 108)

Members who are working on the problem under the Yellow Hat need to bring forward optimistic ideas which may provide opportunities for success. The objectives of this division are:

• Identification of benefits of recommendations
• Evaluation of opportunities within proposed solutions
• Assessment of good-case scenarios
• Assessment of feasibility of recommendations
• Promotion of enthusiasm and motivation

Questions asked from a Yellow Hat's perspective are:

1. What is the best way to approach the issue?
2. What is a reasonable and realistic way to make things work?
3. What are the positive outcomes of each idea?
4. What are the long-term benefits of each action?

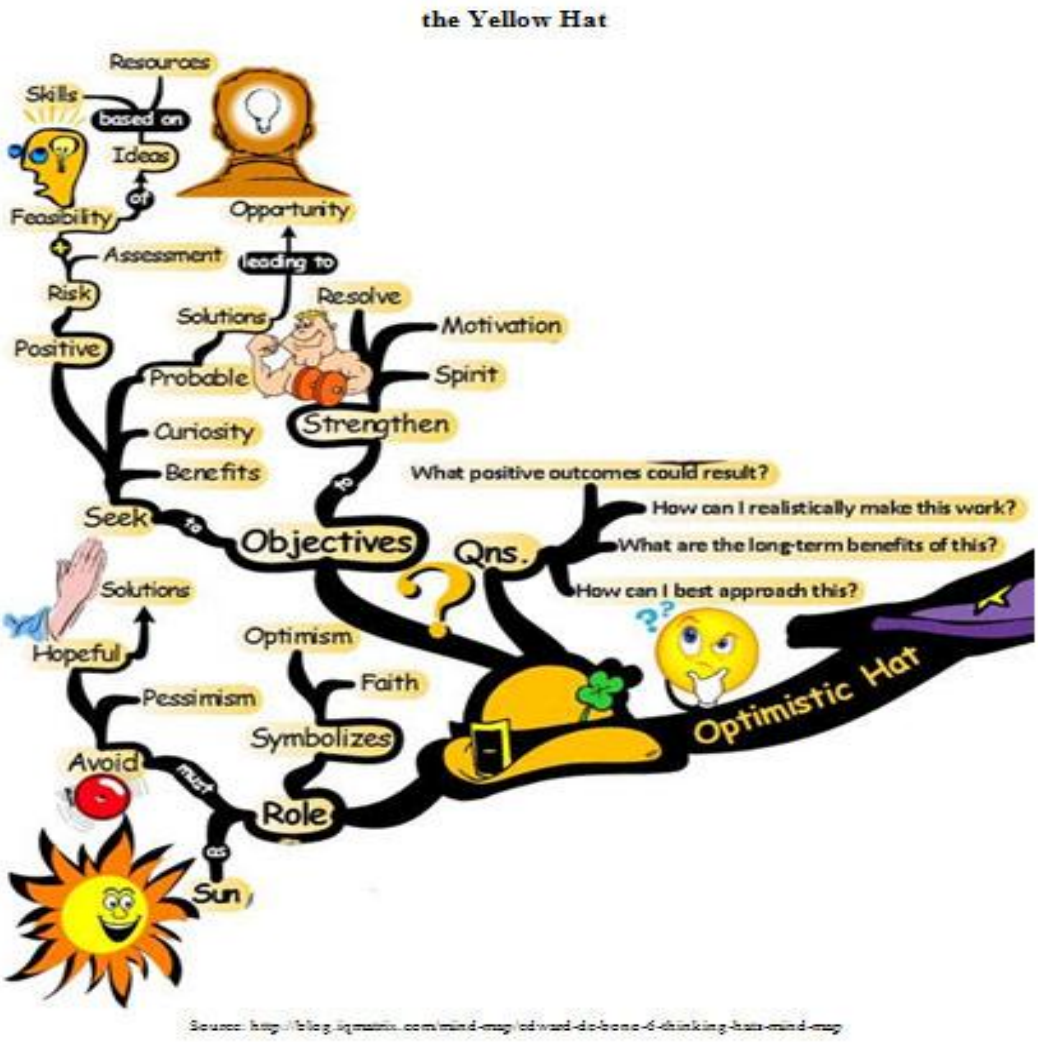

Figure (2) the yellow hat

3. The Red Hat

Red hat thinking is opposite to white hat thinking. The red color symbolizes fire and warmth. The red hat focuses on feelings, emotions, and intuition. Red hat thinking "gives official permission for the expression of feelings that range from pure emotion to hunch" (de Bono, 1999: 51). Without any need to explain or justify, the thinker strives to express his, or her, feelings as they exist. Red hat thinking can praise or criticize an idea based on raw, subjective feelings (Macdonald, 2008: 176).

While Bonk and Smith (1998: 23) stated that Red Hat calls to mind anger, attitudes and feelings. It gives an emotional viewpoint. When the red hat is used, a chance is given for

feelings and perceptions to be verbalized without any explanation. Members who are working on the problem under the Red Hat think with their "heart". They need to use their intuition and instinct to evaluate the situation, its outcomes, and the possible solutions (as those get proposed by the other divisions). The objectives of the Red Hat are:

- Adoption of intuitive reactions
- Awareness and evaluation of others' feelings
- Promotion of emotional views
- Exposition of implied advantages of different approaches
- Exposition of implied disadvantages of different approaches
- Exposition of contradicting outcomes

Vialle et al (2005:155) state some Questions asked form a Red Hat's perspective which they are:

1. What is my initial reaction to a suggestion?
2. How do I feel about a decision I might make?
3. Do I believe I am making the right choice?
4. Does anything inside me tell me there is a better option?

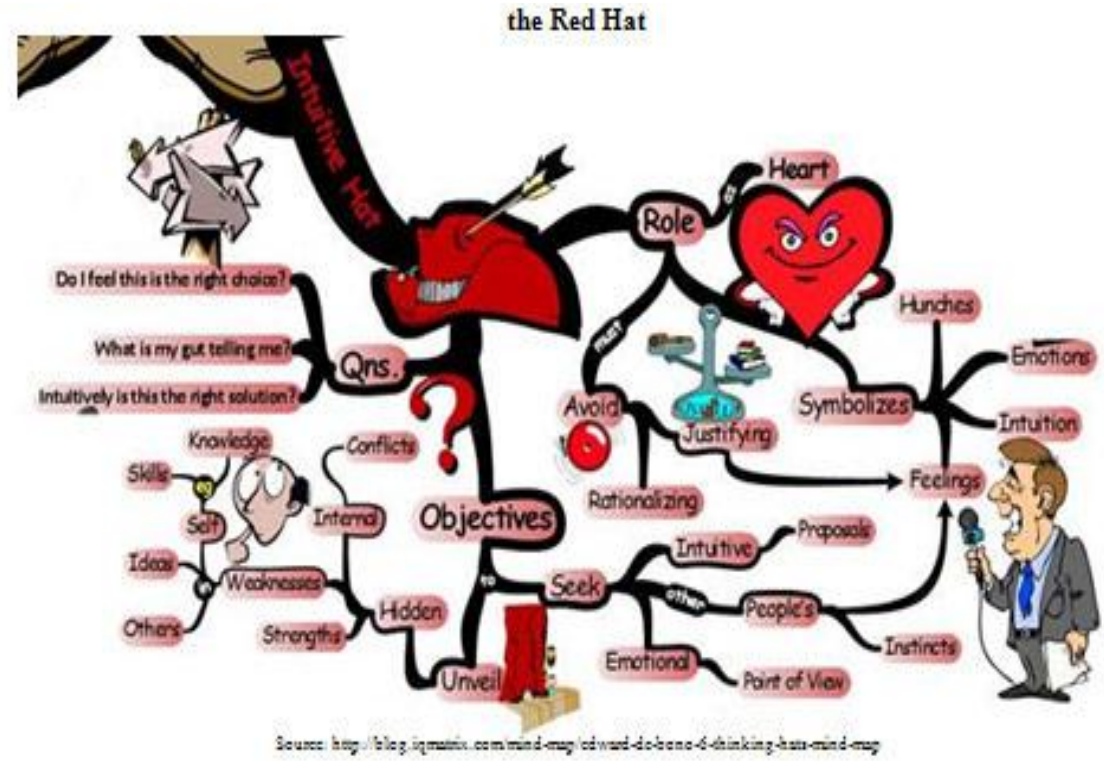

Figure (3) the red hat

4 .The Black Hat

The black color symbolizes somberness and seriousness. The black hat is about being careful and cautious. The weaknesses of an idea are exposed. Black hat thinking promotes criticism and "with the black hat we point out what is wrong, what does not fit, and what will not work. It protects us from wasting money and energy. It protects us from doing silly things and from breaking the law" (de Bono, 1999: 73). With an attempt to play the devil's advocate, the thinker considers the risks, dangers, obstacles, errors, potential problems, and the downside of a suggestion.

Black is pessimistic, negative and derogatory. Black reminds us of a judge's robe. De Bono(1997) emphasized that this hat is the most beneficial and needs to be the most frequently used hat. This hat draws attention to dangers. It points out risks and why something may not be beneficial. This hat is the critical hat and is an objective intervention that is done to bring to light negative situations (Sloane, 2006:122).

Members who are working on the problem under the Black Hat need to concentrate on the dangers and flaws of each approach, and emphasize the worst case scenarios for any proposed solution. De Bono 1999 stated that the objectives of the Black Hat are:

- Identification of negative outcomes and their consequences
- Identification of flawed or weakly-supported contingency plans
- Consideration of inadequate resources
- Elimination of pitfalls and non-beneficial ideas

According to Scannell & Burnett (2010: 70) the questions asked from a Black Hat's perspective are:

1. What is a serious flaw of this recommendation?
2. What is a major drawback to this way of thinking?
3. What are the odds of failure?
4. What could be potential worst-case scenarios?
5. Are necessary recovery resources in place?

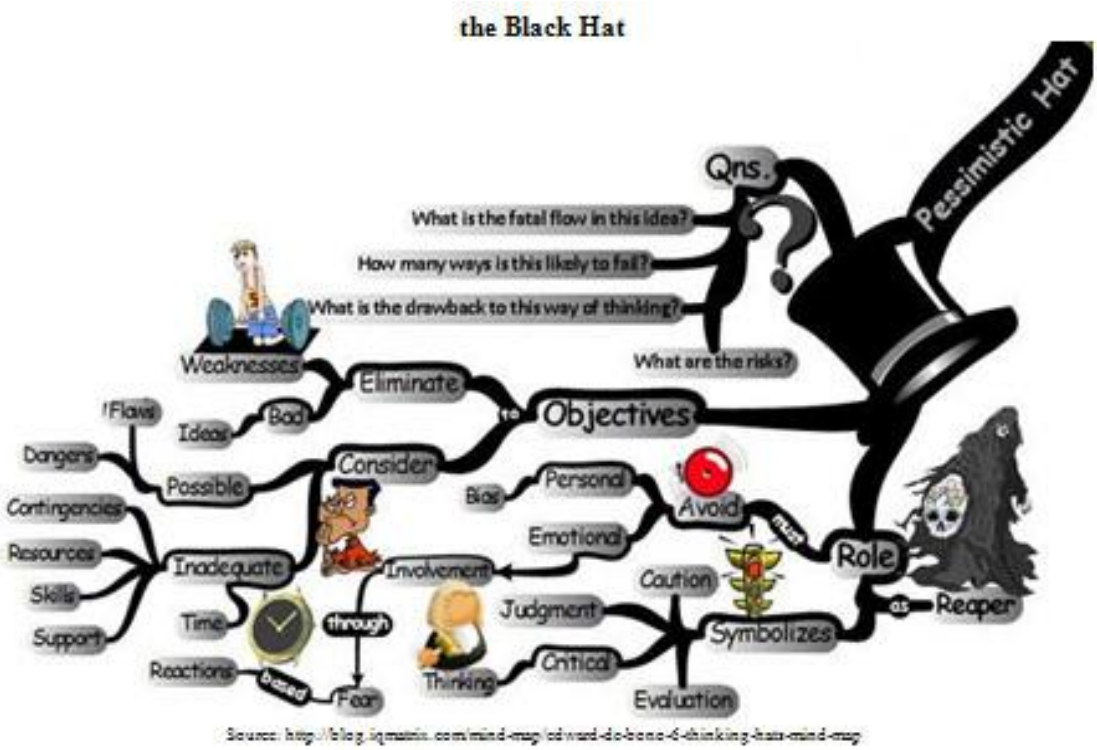

Figure (4) the black hat

5. The Green Hat

The green color symbolizes fertility, growth, the value of seeds. The green hat is all about creative thinking. Green hat thinking is where "we put forward new ideas. Under the green hat we lay out options and alternatives...; we seek to modify and improve suggested ideas. [This method] is also used to overcome some of the difficulties put forward under the black hat" (de Bono, 1999: 115-116). In a deliberate and focused effort, the thinker seeks to find better suggestions, look at ideas in new ways, and provide innovative solutions.

Kenny, (2003:124) stated that Green Hat means blessing, productivity and growth. The color green symbolizes growth, energy and life. When thinking is done with the green hat recommendations, new opinions and alternatives are presented. The green hat gives an opportunity to find various possibilities. Everyone who uses the green hat tries to be creative. Putting on the green hat does not automatically make people more creative.

However this hat can ensure there is time and attention given to thinking more creatively.

Members who are working on the problem under the Green Hat need to vision the problem in a new, open and unrestricted way, in order to generate creative and unusual ideas. The objectives of the Green Hat problem solving approach are:

• Promotion of expanded and elaborate thinking
• Application of extended rules (beyond reality restrictions)
• Envision of creative and non-habitual solutions
• Consideration of new perspectives

According to De Bono (1992 : 114) states that questions asked from a Green Hat's perspective are:

1. What alternative solutions are possible?
2. Could a recommendation be done in another way?
3. What is an unusually unique way of looking at the issue?
4. What would constitute "outside-the-box" thinking in this case?
5. What if…?

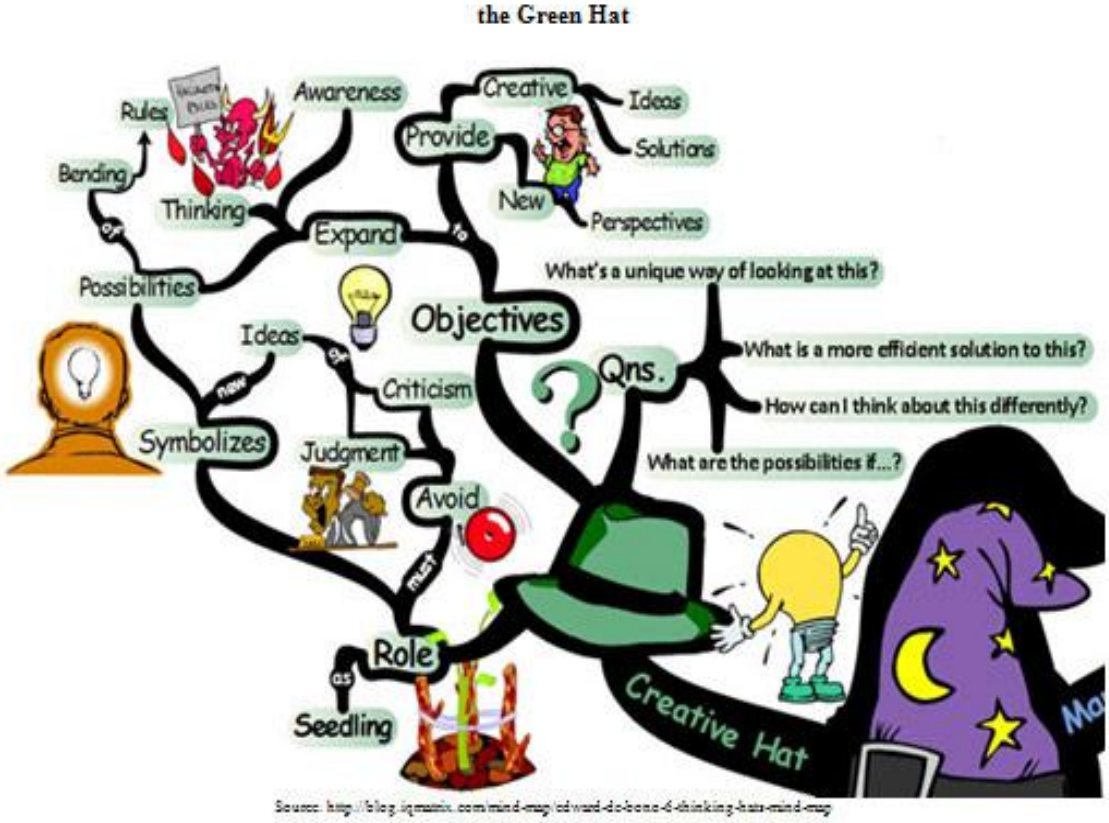

Figure (5) the green hat

6. The Blue Hat

The blue color represents the sky, which is above everything else. Often referred to as process control, the blue hat is concerned about the organization of the thinking process and the appropriate use of the hats. The blue hat thinker "is looking at the thinking that is taking place. He [/she] is the choreographer who designed the steps, but he [/she] is also the critic who watches what is happening" (de Bono, 1999: 161). The blue hat thinker should wear the blue hat throughout the entire meeting. While preserving the integrity of the Six Hats method, the blue hat thinker may also wish to participate in the meeting discussions

Bonk and Smith (1998: 105) state that blue represents calmness. It tries to have a regular and controlled thought process. The blue hat is used for looking directly at the process of thinking. This hat tries to answer these questions:

• What should we do next?
• What have we achieved so far?
• What should we do to achieve more?

The blue hat is used to put the hats that are used in a row and summarizes the results that have been obtained. The blue hat also observes the thinking process and makes sure that the rules of the game are followed. It helps to stop arguments and ensures discipline.

Members who are working on the problem under the Blue Hat need to maintain focus. They act as arbitrators between divisions, directors of the problem solving process, and coordinators of the group. The objectives of the Blue Hat are:

• Maximization of efficiency and effectiveness of thinking
• Facilitation and direction of the thinking process
• Determination of agenda, goals, and responsibilities
• Organization of ideas and recommendations

Questions asked from a Blue Hat’s perspective are:

1. What is the best way to define the actual problem?
2. What are the goals?
3. What are the desired outcomes of the solution-seeking process?

4. What is the most effective way of moving forward?
5. What is the optimal way out of the current circumstances .

(http://en.wikipedia.org/wiki/De_Bono_Hats).

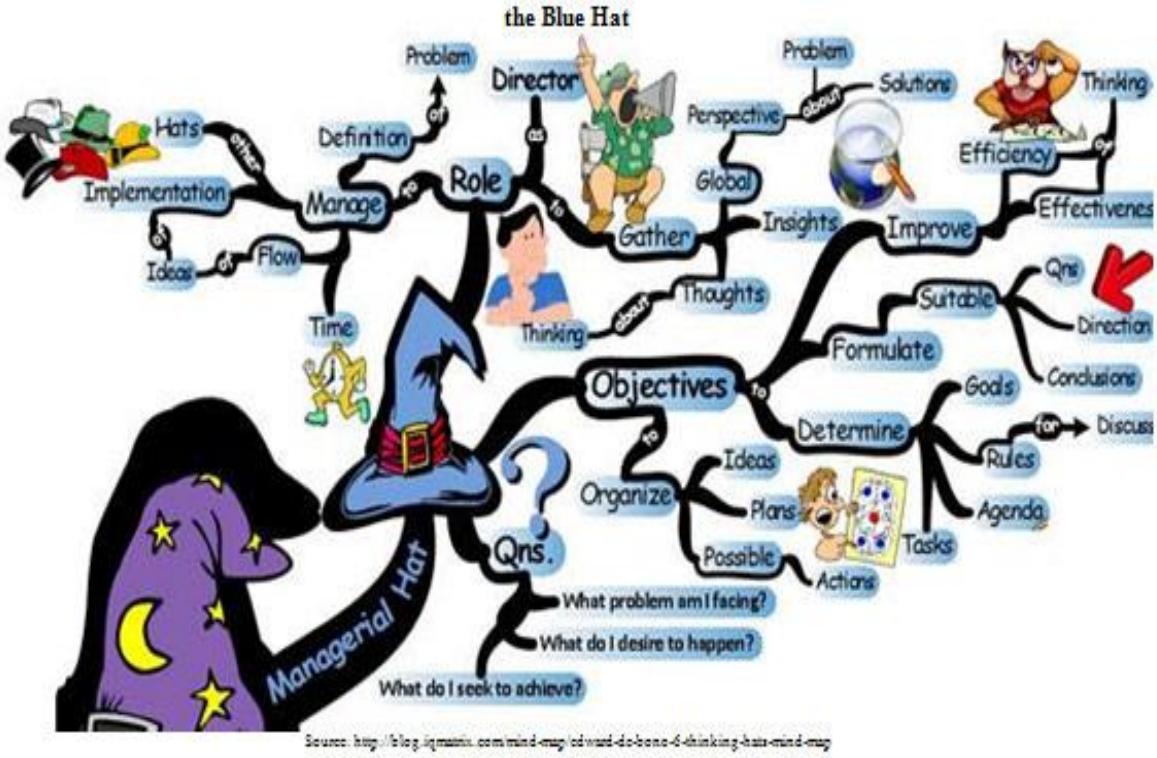

Figure (6) the blue hat

The researcher summarized it as follow :

Six Thinking Hats is a strategy devised by Edward De Bono Which requires students to extend their way of thinking (“parallel thinking” or “multi- -perspective thinking”) about a topic by wearing a range of different “thinking” hats. The colors of the hats help students visualize Separate modes of thinking :

- **White** hat thinking focuses on the information available and needed.
- **Black** hat thinking examines The difficulties and problems associated with topic.

- **Yellow** hat thinking focuses on benefits and values.

- **Red** hat thinking looks at a topic from the point of view of emotions, feelings and intuition.

- **Green** Hat thinking requires imaginative, creative and lateral thinking about a topic.

- **Blue** hat thinking focuses on reflection, metacognition (thinking About the thinking that is required), and the need to manage the thinking process.

3.2 The Benefit of the Six Thinking Hats

F. McAleer (2006 : 92) state some benefits of the six hats which they are :

1. The colors and hats provide a visual image that is easy to learn, remember and use.
2. Thinking is visible, focused, in depth, and at higher levels of critical and creative thinking.
3. The strategy is can be used on a simple, concrete level or abstract, sophisticated level.
4. Listening, speaking, reading and writing improve with a strategy for focus.
5. Interdisciplinary connections integrate the curriculum.
6. Problem solving, decision making, leadership and independence are developed.
7. Students ask quality questions.
8. Student led discussions and projects are focused and in depth.
9. Self-evaluation is systematic.
10. Students develop confidence.

11. Cooperative groups and teamwork are effective and organized.

While Al-Barakaty (2008:77-78) mentions Some benefits of the Six Thinking Hats strategy include:

1. Students are allowed to say things without risk of ridicule.
2. Awareness is created that there are multiple perspectives on a topic or problem.
3. Is a convenient mechanism for transitions.
4. Will lead to more creative thinking.
5. Improves communication.
6. Improves decision making.

The use of the Six Thinking Hats model can benefit students' understanding of a topic, text, or issue as they consider alternate viewpoints and outlooks on the topic, text, or issue .

Obviously, the benefits of de Bono's technique is that the individual or group will cover all the bases, or at least approach problems from various perspectives. De Bono does suggest that groups might agree on an agenda and a particular sequence of hats (Runco, 2007: 347). In addition, the Six Thinking Hats technique is a good way for fostering creativity to several forms of mind (Moon et al, 2011: 8).

Below are some of the key benefits learners find in using the Six Thinking Hats.

- learners-they see results immediately
- Simple to learn, use, and implement
- Not dependent on others (you can use it by yourself)
- Modifies behavior without attacking it
- Empowers
- Can be used at all levels
- Improves cross-cultural interaction
- Reduces conflict
- Encourages cooperation
- Enhances quality of thinking
- Supports other change initiatives

Figure (7): Six Thinking Hats questions
Australasian Journal of Educational Technology, 2012, 28(Special issue, 3)

3.3 The Definitions of Creativity

Starko (2010 :3) mention that the definition of creativity is beset with different interpretations, and some misconceptions often derive from the fact that the definition offered is too broad or too limited and focuses on only one aspect of such a multi-faceted term. Creativity has been linked to a lack of discipline in education; or as pertaining to a gifted few. Another popular misconception is the association of creativity as pertaining solely to the creative Arts (de Bono, 1993: 121) . Perkins (1988 : 311) defined creativity as follows: "(a) A creative result is a result both original and appropriate. (b) A creative person—a person with creativity—is a person who fairly routinely produces creative results" .

Promoting creativity in education has to take into account the apparently conflicting factors included in creativity. Creativity is said to involve both divergent and convergent thinking. Divergent thinking, what de Bono (1995) has defined as lateral thinking, is 'thinking from "what if", association, intuition and possibility; beginning from questions – why? how else? instead of thinking in a linear fashion' (Craft, 2003: 326). Convergent thinking implies narrowing down a list of possibilities to reach a decision or solve a problem.

Teaching creatively is a tool in the hands of the teacher who wants to make any learning experience meaningful, creative teaching as a means to better teaching, whereas teaching for creativity implies the inclusion of creativity as a learning objective in teacher's planning of lesson material. Teaching for creativity must acknowledge a multi-faceted approach to creativity, an approach that takes into account all the aspects of creativity where education is concerned (Prentice, 2000 : 230).

Craft (2003 : 55) has drawn attention to a number of problems with regard to the fostering of creativity in education, such as difficulties of terminology, conflicts between policy and practice, limitations in curriculum organization, limitations stemming from a centrally controlled pedagogy, and social, environmental and ethical specificity. Epstein (1996:16) writes that the reasons why creativity seems to be in short supply are the myths about creativity that are deeply ingrained in our culture. He challenges the ideas that only artists are creative and that creativity is rare; that creativity is mysterious and magical and divine. In Serious Creativity, de Bono explains how creativity should not be considered as something mysterious. He suggests looking 'directly at the behavior of self-organizing information systems.' (de Bono, 1993: 4) The analysis of the actual and potential behavior of the brain can give a very clear idea of the nature of creativity and thus lead to the development

of techniques to increase the possible generation of new ideas (de Bono, ibid.).

"Being a thinker is a totally different self-image. It is an operating skill. You can do something about it. You can get better at thinking just as you can get better at playing football or cooking" (de Bono, 1985:17). He argues that original thinking is nothing more than learning to access information in a different way: "It can be shown that lateral thinking can make people generate more ideas and by definition gifts cannot be taught. There is nothing mysterious about lateral thinking. It is a way of handling information" (de Bono, 1985: 50).

Creativity is a thought process which is sensitive to problem interference, knowledge deficits, missing elements, and inconsistency. Creativity describes difficulties and looks for and finds solutions. Critical thinking can be defined as reflective thinking and includes high level thinking processes in which basic thinking skills are used, arguments are analyzed, meaning and interpretation is developed, logical thinking patterns are developed, theories that encircle claims and prejudices are understood, and an attitude that is reliable, unique and believable is developed (Edwards , 2007: 89).

for some of the researchers there is no more important question than what are we doing to stimulate the minds of our students. Ford and Harris rail against the meager attention given to imagination, "The initial problem in defining creativity reflects the fact that our society respects creativity less than intelligence and academic ability, a bias evident in our schools" (Ford & Harris, 1992 :186).

Moreover, de Bono (1985) asserts that creativity demands more attention than the other higher processes. This is due, in part, to the paradigm shift that technology is having on our society. Anyone can get information - it is what we do with it that is important: "More and more creativity is coming to be valued as an essential ingredient in change and in progress. It is coming to be valued above knowledge and above technique

since both of these are becoming so accessible" (de Bono, 1985 : ii).

De Bono (1992) takes the concept of divergent thinking and imposes a specific structure and a specific set of rules which he believes can teach anyone to become a creative thinker. People are not creative, according to de Bono, because they feel blocked (de Bono, 1992: 4). His techniques show people how to remove the block in order to let their creativity flow. There is no mystery to the process of creativity; it is simply a logical progression. "I want to emphasize that the tools are deliberate and can be used systematically. It is not a matter of inspiration or feeling in the mood or being 'high.' You can use the tools just as deliberately as you can add up a column of numbers" (ibid : 6).

The most important aim of education today is to provide individuals with the capacity to be able to think flexibly and have open minds to be able to adapt to different situations. Consequently the structure of education, the content and presentation methods focus on the development of high level thinking skills, such as analysis, synthesis, evaluation, finding relationships, abstraction, summarizing subjects, and having students make connections with the world outside the classroom (Berber et al, 2002:110). High level thinking allows students to combine their knowledge through case studies, numerical data, and other information with their thoughts, to synthesize, generalize, give meaning, and create new ideas or meanings (Demirci , 2003: 13).

3.4 Critical Thinking

There are many definitions and ideas regarding the characteristics of critical thinking, the disposition of critical thinkers, as well as teacher and student behaviors that indicate

some deficiency in good thinking (Lipman, 2003; Zhang, 2003, Pithers & Soden, 2000). Perhaps providing concrete ways of exemplifying critical thinking may make this process of inquiry less abstract to many educators. Lipman (2003: 154) maintains that critical thinking relies on criteria, is self correcting, sensitive to context, and provides intellectual empowerment. "Critical thinking in any area involves being able to pursue one's questions through self-directed search and interrogation of knowledge, a sense that knowledge is contestable, and being able to present evidence to support ones' arguments" (Pithers & Soden, 2000 : 239). This thinking can be applied in all disciplines by posing searching questions, directing students to conduct independent research, encouraging them to question or challenge assertions, and then present their own fact-supported positions. Meanwhile Zhang (2003: 4) provides insight into the nature of critical thinking by identifying specific character traits or dispositions of critical thinkers .

According to Zhang (2003 : 1) "The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances the inquiry permit." Further, as analytical beings critical thinkers are cognizant of potential barriers and difficulties and are always prepared to identify solutions to these problems. In doing so they are systematic and methodical in their approaches to solving problems. Finally critical thinkers are intellectually curious.

Richard Paul (1990 : 22) state that critical readers of literature approach literature as an opportunity to live within another's world or experience, to consider someone else's view of human nature, relationships, and problems. Critical readers familiarize themselves with different uses of language to enhance their understanding and appreciation of literature. They

choose to read literature because they recognize its worth. They can intelligently discuss it with others, considering the interpretations of others as they support their own. Critical readers approach a piece of nonfiction with a view to entering a silent dialogue with the author. They realize they must actively reconstruct the author's meaning. They read because there is much that they know they do not know, much to experience that they have not experienced. Thus, critical readers do not simply pass their eyes over the words with the intention of filling their memories. They question, organize, interpret, synthesize, and digest what they read. They question, not only what was said, but also what was implied and presupposed. They organize the details, not only around key ideas in the work, but also around their own key ideas. They not only interpret, they recognize their interpretations as interpretations, and consider alternative interpretations. Recognizing their interpretations as such, they revise and refine them. They do not simply accept or reject; they work to make ideas their own, accepting what makes most sense, rejecting what is ill-thought-out, distorted, and false, fitting their new understanding into their existing frameworks of thought.

3.5 Lateral Thinking

Dr. Edward de Bono is regarded by many as the leading world authority in the field of creativity. He is the inventor of the phrase "Lateral Thinking" which is now in the Oxford English Dictionary. His Lateral Thinking tools are based directly on how the brain functions as a self-organizing information system. He has worked for over thirty years in the field with major corporations all over the world. **(**Thompson, 2011 :1)

There are a number of ways of describing or defining Lateral Thinking.

1. "You cannot dig a hole in a different place by digging the same hole deeper." This means that trying harder in the same direction may not be as useful as changing direction. Effort in the same direction (approach) will not necessarily succeed.
2. "Lateral Thinking is for changing concepts and perceptions instead of trying harder with the same concepts and perceptions." With logic you start out with certain ingredients just as in playing chess you start out with given pieces. But what are those pieces? In most real life situations the pieces are not given, we just assume they are there. We assume certain perceptions, certain concepts and certain boundaries. Lateral thinking is concerned not with playing with the existing pieces but with seeking to change those very pieces. Lateral thinking is concerned with the perception part of thinking. This is where we organize the external world into the pieces we can then 'process'.
3. "The brain as a self-organizing information system forms asymmetric patterns. In such systems there is a mathematical need for moving across patterns. The tools and processes of lateral thinking are designed to achieve such 'lateral' movement. The tools are based on an understanding of self-organizing information systems." ."(*ibid* : 1)

Cohen & O`Connell (2008 : 171) as sited in Al-Bahadli (2011:70) states that lateral thinking involves restricting and the provocation of new pattern . What is more important is that lateral thinking leads to change in attitude and approach ; to looking in different way at things , which have always been looked at the same way . In lateral thinking , according to De Bono(2005 : 198) , there are four steps to innovation :

1. focus on dominant ideas that come to mind that polarize perception of a problem .
2. look at multiple perspectives of the problem .
3. pay attention at the idea that the logical thinking process typically taught in school as of the scientific method .

4. Allow " outside of the box " ideas to come to mind and be considered even though they do not fit into the logical , scientific thinking pattern .

3.6 Teacher Role

Joan Dean (1996 : 41) state that Teachers are professional people . being professional means having a theoretical background to the work you do and having professional code of behavior . Capel *et al* . (1995 :20) make the following about this : *" There is a professional code of ethics which is currently unwritten in the UK but which you are expected to uphold . For example , you are expected to treat information about individuals with confidentiality ; provide equal opportunities for the pupils in your care ; deal with pupils in an objective , professional manner regardless of your personal feelings ; keep up to date in your subject ; reflect on and develop your teaching ; adopt appropriate language and a professional demeanor "*

De Bono (1999) in his work Six Thinking Hats offers an interesting approach to training students to dissect information and analyze it from different angles. De Bono (1999 :118) suggests that teachers use a meta-cognitive and simulated approach to encourage thinking. The author recommends that teachers allow their students to wear hats of specific colors. Each color hat should be symbolic to a range of analyses including emotion, objectivity, critique, problem solving, and creativity. In applying De Bono's (1999) strategy, teachers should assign groups and pose focus questions that relate to the thinking that the colored hat represents. Some common themes are white hat representing objective thinking about facts and figures, red symbolic of intuitive feelings and emotions, yellow indicative of the viability of suggestions, black denoting the feasibility of a plan, green a cue for exploring alternate ideas and blue alerting thinkers to develop an action plan. Clearly these components of thinking are separated for focus. However students will realize that to adequately address their assigned

questions they must consider the ideas of wearers of other hats—a process that necessitates consultation. This activity should help students to understand more deeply, the multi-dimensional approach that good thinking requires. Additionally since it is worn on the part of the body that houses the brain, it is an appropriate metaphor for the process of thinking. More importantly, if they adapt the "colored hat" approach to analyzing situations, over time the quality of their thinking is likely to improve and they may begin to acquire the dispositions of critical thinkers .

3.7 Related Previous Studies

An Introductory Note

In order to formulate a clear idea of the studies carried out in the field of RC ,it is very important to review previous studies relevant to the Six Thinking Hats method and shed light on the major dimensions related to this study .

Presenting samples of the literature and previous studies related to the present study can be justified on the grounds that whatever knowledge or basic information contained in any of these works would have its impact on this study on the one hand , while , on the other hand , methodology used by any one of these researchers is of benefit in organizing the researcher`s work . This , whoever , does not mean that the selected studies would be similar to this study in every aspect . The researcher adopts the view that analysis of the previous studies or extracting the main ideas and experiences of the authors of the studies would inevitably enrich her topic to a great extent , and can be considered a start point for her research .

1. Al-Bahadli 2011

this study is an attempt to find out the effect of the Six Thinking Hats technique on EFL college students' performance in composition writing. Thus, an experiment is designed .Sixty students from the College of Education for Women have been

randomly chosen (thirty students as an experimental group which are taught composition writing by the use of the Six Thinking Hats technique and thirty students as a control group which are taught composition writing according to the conventional ways) during the academic year 2010 -2011. Meanwhile, the subjects of both groups are matched according to their age, level of parents' education and their scores in the pre-test. The researcher herself has taught both groups the assigned material (eight selective topics). The validity of the topics, the test and the scoring scheme have been obtained by exposing them to jury members in the fields of ELT and linguistics. The answers of the test have been separately scored by the researcher and two other scorers separately. The reliability of the test has been secured by using Alpha Cronbach Formula (0.813), intrascorer reliability (0.987), and interscorer reliability (0.953). Statistical analysis of data achieved through the test indicates that there are statistically significant differences between the experimental group performance and that of the control group in terms of composing, style, sentence formation, usage, mechanics, and the composite score of the post test, in favour of the experimental group. The researcher concludes that using the Six Thinking Hats Technique develops students' performance in composition writing and gives them opportunity to simplify their thinking process, explore facts, seek the negative and positive aspects in a given topic and make logical solutions and decisions .

2. El-Madhoun 2012

The study aimed to identify the impact of using the Six Thinking Hats Programme in the development of creative thinking skills (fluency, flexibility, originality) in the Human Rights curriculum for the sixth grade pupils in UNRWA Schools. The study 's group included students in sixth grade in west Gaza area , enrolled in UNRWA schools for the academic year 2011-2012. experimental schools have been selected

randomly from two of Gaza's schools (males and females), New Gaza Prep 'A' Boys School and Beach Prep "B" Girls School , and the sample was selected randomly from those two schools, and included (140) male and female pupils of the sixth grade students in Gaza. The researcher followed the experimental method with real designing for two equivalent groups and pre and post measurement . The tool of the study "a creative thinking test" has been applied , in order to identify the impact of the Six Thinking Hats in teaching Human Rights on developing creative thinking for students of sixth grade in Gaza. Data was collected and analyzed statistically using SPSS Programme , in order to test study hypotheses. And the results of the study were as followed :

1- There are statistically significant differences at the level of significance ($\alpha \geq 0.01$) , between the average grades of the experimental group on the post test of creative thinking and the average of their peers in the control group favored the experimental group .

2- There are a statistically significant differences at (($\alpha \geq 0.01$) between the average score of the experiment group and their fell ours in the control group in the post test of the creative thinking for the favor of experiment group.

3- There are no statistically significant differences at the level of significance ($\alpha \geq 0.05$) between the average grades of the experimental group on the post test of creative thinking and the average score for pupils of the experimental group.

4-The Six Hats Programme described with a high validity more than (0.78) according to coefficient of Eta square in developing creative thinking skills in teaching human rights for sixth grade students .

3. Al-Hussaini 2012

This study aimed at inquiring the effectiveness of the six hats strategy of teaching Arab World Geography for tenth grade students in the state of Kuwait on their achievement and critical thinking implementation of the six hats with tenth grade

students in Geography of the Arab world in Kuwait, and its impact on their achievement and critical thinking . The study questions were as the following:
1-Does the achievement of tenth grade students in the subject of the Arab world in the State of Kuwait in different teaching strategy (six hats – the traditional method)?
2-Does the critical thinking among students in the tenth grade in the subject of the Arab world in the State of Kuwait in different teaching strategy (six hats - the traditional method)?

The study population of all tenth grade students in the province of Aljahra at the state of Kuwait during the first semester of the academic year 2011 / 2012. To achieve the objectives of the study, Watson – Glaser critical thinking test was used, and achievement test of (36) items was built by the researcher. To ensure the validity of the achievement test, it was distributed to a group of jury in curriculum and teaching methods. The reliability coefficients for the critical thinking and achievement test were calculated by using (test - re - test) method which were (0.82) and (0.86). Cooder - Richardson (KR-20) was also used to calculate the internal consistency of the achievement test which was (0.81) .To analyze the data collected (ANCOVA) was used to test the hypotheses of the study . The results were as follows:
1-There were statistically significant differences between the means of tenth grade students in the subject of the Arab World in the State of Kuwait according to the different teaching strategies (six hats - the traditional method), in favor of the six hats strategy.
2- There were statistically significant differences in the level of critical thinking among students in the tenth grade in the subject of the Arab World in the State of Kuwait according to the different teaching strategies (six hats - the traditional method) in favor of the six hats strategy.

Finally, the researcher recommended some recommendations, the most important one was including the

thinking tools of the six hats strategy in the Geography of the Arab World course for tenth grade student in Kuwait .

4 . Tooley (2009)

The study aims at evaluating the usefulness of using the visual images (the STH, and drawing techniques) in teaching English as L1 writing at the elementary stage. The sample of the study includes only one elementary teacher and 24 pupils of both sexes used for in-depth study. The study is carried out in 2009 in Bowling Green, Kentucky. To collect the required data, the researcher follows a case study approach including questionnaire responses, interviews, classroom observation and the analysis of students' writings. The findings of the study indicate the impact of Drawing and the STH techniques on students' writing. In addition, the data reported highlights the use of the STH and Drawing techniques as instructional tools in writing instruction and support the conclusion that these techniques should be incorporated into the teaching of writing. Interestingly, students who are engaged in this study find these techniques useful since they provide opportunities for students to have fun, interact with others, discuss what they are doing, develop understanding through role play, and have clear target.

5.Mohamed2010

this study aimed to investigate the effectiveness of using six hats strategy to develop Critical reading skills to the students at the secondary schools , the researcher used the descriptive analytical approach and experimental approach . study 's group included students in the first grade of porsaaid schools for the academic year 2010-2011. and the sample was selected randomly from this schools , and included (60) female (thirty students as an experimental group which are taught critical reading by the use of the Six Thinking Hats strategy and thirty students as a control group which are taught according to the traditional ways) . in order to achieve the objectives of the study the researcher used the following tools (questionnaire and

a test for the critical reading skills), Data was collected and analyzed statistically using SPSS Programme and T-test ,the result of this study refer to the effectiveness of using thinking development strategy (six hats) in the teaching of reading and in the developing of critical reading skills among high school students . The researcher concludes that the using of Six Thinking Hats strategy improves students' performance in critical reading and gives them opportunity and positive trends to simplify their thinking process in general and thinking and learning in particular .

6 . AL-Barakaty 2008

This study is presented as a complementary requirement for a PhD. in educational technology at Curricula & Teaching Method Department, College of Education, and Umm ALQuram University. The objective of this study is to know the effect of teaching via employment of strategies of multiintelligence, Six – hat and K.W.L. in knowledge attainment and mathematical association among Female students of the Third Intermediate Class at the schools in Makkah Al-Mukarramah .The problem which this study addresses itself to solve is focused on the following question :What is of effect of teaching via usage of strategies of multi-intelligence, six –hat and K.W.L. in knowledge attainment and mathematical association and among Female students of the Third Intermediate Class at the schools in Holy city of Makkah Al-Mukarramah ? The research, which comprised nine assumptions, was applied to the unit of geometrical solids of the mathematical course of female third intermediate class in schools of Saudi Arabia. The unit's lesson was taught according to each one of the three experimental strategies via preparing a unit for the students, guidance for the teacher for teaching and enriching the unit's lessons.

Technique: Two attainment test were prepared; one for measuring students' attainment in the unit and the other for measuring the two skills of mathematical association. The constancy and validity of the technique have been confirmed.

The researcher has employed the design of the imbalanced controlling group, which has two anterior and posterior tests.
The study sample comprised (95) female students, who were randomly distributed among four groups; the first three were experimental and the fourth controlling. The first experimental group was taught according to the strategy of multi-intelligence and second was taught according to the six –hat strategy and third according to K.W.L. strategy, whereas the controlling group was taught according to the traditional strategy. As per the accompanying variance analysis used the following results and conclusions were reached:
- There were statistically significant differences.
- Every one of the three experimental groups surpassed the controlling one in knowledge attainment, levels of memorization, application, analysis, construction, and mathematical association.
- The two groups exposed to multi- intelligence and six-hat strategies surpassed the controlling one at the levels of understanding and mathematical association, whereas the two groups exposed to multi- intelligence and K.W.L strategies have surpassed the controlling one in relation to the level of evaluation.
- The group exposed to the multi- intelligence strategy surpassed the one exposed to the six-hat strategies in evaluation level; but the group exposed to the six-hat strategies surpassed the one exposed to multi- intelligence strategy in memorization level, whereas the group exposed to multi- intelligence strategy surpassed the one exposed to K.W.L in of levels of understanding and mathematical association and the group exposed to the six-hat strategies surpassed the one exposed to K.W.L strategies in memorization level.
Recommendations :
- To train female teachers to use the strategies of Multiple Intelligences, six –hat and K.W.L. in knowledge attainment and mathematical association.
- To enrich mathematical courses with activities of Multiple Intelligences, six –hat and K.W.L. strategies, as they are

expected to contribute substantially in raising students' attainment.
- To associate mathematical courses with different life activities.

Chapter Four

Procedures and Methodology

4.0 Introduction

This chapter introduces all the procedures followed to achieve the aim and verify the hypotheses of the study; it covers the experimental design , population and the sample selection procedure , the pre-post test , equivalence of the samples , the experimental procedures and the statistical tool .

4.1 Research Design

The researcher adopted experimental design which is considered the "(only way to approach Causes & Effect)- a method of controlling all variables expect the interest which is manipulated by the investigator to determine if it affects another variable" (Jonassen,1996).

This study follows the true experimental design of pretest – posttest equivalent groups . This design involves at least two groups , both of which are forms by random assignment ; both groups are administered a pretest of the dependent variable , one group receives a new , or unusual , treatment and both groups are post tested . so the best approach to data analysis is simply to compare the post test scores of the two groups . the pretest is used to see if the groups are essentially the same on the dependent variable . if they are ,post test score can be directly compare using a t-test . The researcher applied the six thinking hats method to find its effectiveness on developing reading comprehension skills on an experimental group, while the control group did not receive the same treatment. First, the researcher administered a pre-test before the application of the experimental and control treatments and a post-test at the end of the treatment period .

Table (1)
The Experimental Design

Experimental group	Pretest	Independent variable	Posttest
Control group	Pretest	----------	Posttest

4.2 The Variable of the Study

To affirm the accuracy of the results, the researcher defined the variables as the dependent variable and the independent one.

- The dependant variable is reading comprehension abilities .
- The independent variable is DeBono`s method of thinking .

4.3 The Sample of the Study

A sample of (60) female students from Jueria Bint Al-Harth secondary school for girls was purposefully chosen from the whole population of secondary schools in Baquba City see table (2) . The selection of the sample is limited to secondary schools for girls after dropping the secondary schools for boys and girls in the Directorate General of Education in Diyala Governorate .

Table (2) Names of Secondary Schools for Girls in Baquba City

No .	Names of Schools	No. of Pupils
1-	Al – Huryia Secondary School for Girls	133
2-	Al –Adnanyia Secondary School for Girls	111
3-	Um Sal`ama Secondary School for Girls	127
4-	Um AL-Baneen Secondary School for Girls	79
5-	Fatemat Al-Zahraa` Secondary School for Girls	88
6-	Al –Muaa`mena Secondary School for Girls	90
7-	Jumana Secondary School for Girls	66
8-	Aa`esha Secondary School for Girls	80
9-	Al –Amal Secondary School for Girls	69
10-	Amenah Bint Wahb Secondary School for	102

	Girls	
11-	Al – Masara` Secondary School for Girls	55
12-	Al – Urwat Al- withqa Secondary School for Girls	78
13-	Al –yamama Secondary School for Girls	105

After visiting the school , it has been found that there are four sections of the fourth grade in the school (A – B – C - D) .The researcher chose two sections ; the first section (A) included (33) students as an experimental group and the second section (B) included (32) students as a control group. The total number is 65 students . all the above random selections are carried out .Three students from A and two from B are excluded from the experiment because they are repeaters in this grade . Repeater are kept in their classes during the period of the experiment , thus the final number of the sample subjects is (60) students see table (3) .

Table (3) The Final Number of the Sample Subjects

Group	Section	No .	Repeaters	Final No.
EG	A	33	3	30
CG	B	32	2	30
Total		65	5	60

4.4 Equivalence of the Sample :

In order to increase the sensitivity of the experiment , the researcher has equated the subjects according to the following variables :

1. The age of the subjects ,
2. The level of mothers` education ,
3. The level of fathers` education ,
4. The Subjects` Level of Achievement in English in the Third Intermediate Grade , and
5. The subjects` score on the pretest .

Note : the information mentioned above in (1,2,3,4)taken from the school records and the students themselves .

4.4.1. The Age of the Subjects (measured in months)

The researcher has used the t-test formula for two independent samples to determine whether there is any significant difference between the experimental group and the control group in the age factor measured in months .

The mean score of the experimental group was (186.933) months and that of the control group was (186.833) months . t-test score was (0.0694) which indicate no significant difference at (0,05) level of the two groups in age . See table (4) and appendix (F) .

Table (4) The Mean , Standard Deviation and T-Value of the Students` Age

Groups	No. of subjects	M	S.D	df	T- value		Significance at 0.05level
					Calculated	Tabulated	
E G	30	186.933	5.41348	58	0.0694	2.001	Not Significant
CG	30	186.833	5.60224				

4.4.2. The Level of Fathers` Education

In order to find out whether there is any significant difference between the two groups in the level of their fathers` education (see appendix G), chi-square formula has been used . educational qualifications are classified as follows :

Table (5) Frequency and Chi-Square Value for the Level of Fathers` Education .

Stage of Education	Frequency		Total	df	Chi-square value	
	Exp	Con			Computed	Table
Illiterate	3	2	5	5	11.4	12.83
Primary	7	6	13			
Intermediate	11	9	20			
Preparatory	4	5	9			

Diploma	2	3	5			
B.A	3	5	8			
total	30	30	60			

The result shows that there is no statistically significance difference between the two groups in this variable see table (5) .

4.4.3 The Level of Mothers` Education

As for the mothers` level of education table (6 ) shows that there is no significant difference as well , and the two groups are equivalent in this variable . They were treated in the same way as in dealing with the level of fathers` education .

Table (6) Frequency and Chi-square Value for the Level of Mothers` Education

Stage of education	Frequency		Total	df	Chi-square value	
	Exp	Con			Computed	Table
Illiterate	2	3	5	5	11.6	12.83
Primary	7	8	15			
Intermediate	8	9	17			
Preparatory	6	5	11			
Diploma	3	2	5			
B.A	4	3	7			
Total	30	30	60			

4.4.4 The Subjects` Level of Achievement in English in the Third Intermediate Grade

The mean scores of the experimental group and the control group in the third intermediate grade , and first term , year (2012) were treated . The mean scores of the experimental group and the control group in the third intermediate grade were (73.100) and (72.933) .The t-test reveals that there is no statistically difference between the two groups at 58 degrees of freedom and 0.05 level of significance . the calculated t-value is

0,4052 , whereas the tabulated is 2.001 which indicated no statistically significant difference . See table (7) and appendix (H) .

Table (7) The Mean , Standard Deviation and T-Value of Subjects` Achievement in the 3rd Intermediate Grade .

Groups	No. of subjects	M	S.D	df	T- value	
					Calculated	Tabulated
EG	30	73.100	1.905	58	0.4052	2.001
CG	30	72.933	1.12842			

4.5 The Pre-Post Test

In order to achieve the aim of study , a pre-post test has been used . The pretest has been conducted to ensure the equalization of the groups involved in the study and the posttest to evaluate the effectiveness of the experimental procedure , and both tests made of two reading passages which were taken from " Intermediate comprehension passages " to Donn Byrne , 2003. In selecting the two texts, the following factors were taken into consideration:

1-The passages are suitable to fourth preparatory grade students in terms of their general proficiency level.

2-Most of vocabularies are familiar to the fourth preparatory grade students as they have learned them in previous classes .

Generally , a test " is a means of measuring the knowledge , skill , feeling , intelligence , or aptitude of an individual or group " tests produce numerical scores that can be used to identify , classify , or evaluate test takers (Gay , 1986 : 192) . In the current study , a reading comprehension test has been chosen to achieve the aim of the study and to verify its hypothesis . Both groups of students are exposed to the same pre-post reading comprehension tests. (See appendix B & C) .

4.5.1 Scoring Scheme of the Tests

Scoring scheme is a way upon which the researcher depends in interpreting the results .To interpret the results properly and for the purpose of objectivity and reliability an accurate scoring scheme should be adopted (Harrocks and Schannover , 1968:76).

The researcher has allocated one mark for each correct item and zero for the wrong one . The both tests ; pre and post test consists of 25 items , so the highest mark for both tests is 25 and the lowest mark is zero .

The researcher herself has checked the responses for both experimental and control groups . the scores of the study subjects are shown in the Appendices (K & L) .

4.5.2 The Students' Scores on the Pre-Test

To ensure that the sample subjects are equivalent in their previous English language performance , the researcher applied the reading comprehension test before starting the experiment . the result of the subjects were recorded and statistically analyzed by using t-test . Table (8) shows the mean and the standard deviation of the subjects` achievement on the pre test. The results analyzed indicates that there are no statistically significant differences between the experimental and the control groups at (0.05) level .(see appendix K)

Table (8) The Mean and the Standard Deviation and T-value of the Subjects` Achievement on the Pretest

Groups	No. of subjects	M	S.D	df	T- value	
					Calculated	Tabulated
E G	30	15.200	4.8664	58	0.1812	2.001
C G	30	15.433	4.93882			

4.5.3 Test Validity

One of the qualities to be considered when selecting or constructing a research instrument is validity . Validity is a relationship between evidence from test performance and the inferences about candidates capacity to perform in the criterion that are drawn from that evidence . (McNamara , 2000 : 138)

According to Harmer (2001:322) , validity means that the test should measure what is supposed to measure. it is the extent to which the conclusions drawn from a specific sample are applicable to a large population . Heaton (1988 : 160) states that most designers of communicative tests regard face validity , as the importance of all types of test validity .

To achieve the validity of the present study , the two tests have been exposed to a jury of (15) members who are specialists in linguistic and teaching EFL , see Table (9). The jury have agreed that the test is valid in its face and its items are suitable for the level of the students` knowledge of English at the fourth preparatory grade and the test items are appropriate for measuring students` achievement in reading comprehension except for some modifications which have been taken into consideration .

Mackey and Gass (2001: 107) stated that "content validity refers to the representativeness of our measurement regarding the phenomenon about which we want information." On the other hand Weir (1990 :52) defined it as essentially the systematic examination of the test content to determine whether it covers a representative sample of the behavior domain to be measured . concerning the content validity of the tests , it can be said that they have content validity since they are based upon a careful analysis of the content of the school textbook and literary spot material .

Table (9) The Jury Members

1-	Prof. Khalil Ismail Irjaiya , Ph.D.	University of Diyala \ College of Education
2-	Prof. Najat Al-Jubory , M.A	University of Baghdad \ College of Education For Woman

3-	Prof. Fatin Al-Rifa`i , Ph.D	University of Baghdad \ College of Education (Ibn Rushed)
4-	Prof. Eman Fat`hi` , M.A.	University of Mustansiriyah \ College of Basic Education
5-	Asst.Prof. Abdul Jabbar Darwesh , Ph.D.	University of Mustansiriyah \ College of Basic Education
6-	Asst.Prof. Abass Jasim Aldegely , Ph.D.	University of Mustansiriyah \ College of Basic Education
7-	Asst.Prof. Dhuha Atalla Al-Qaraghooly ,Ph.D.	University of Mustansiriyah \ College of Basic Education
8-	Asst.Prof. Sa`ad Salal Serhan , M.A.	University of Mustansiriyah \ College of Basic Education
9-	Asst.Prof. Sami Al-Mamoury , Ph.D.	University of Diyala \ College of Basic Education
10-	Asst.Prof. Abass Al-Janaby , M.A.	University of Mustansiriyah \ College of Basic Education
11-	Asst.Prof. Ayad Hameed Mahmoud	University of Diyala \ TOFEL Center
12-	Asst.Prof. Muslim Mahdi Jasim , Ph.D	University of Diyala \ College of Basic Education
13-	Inst. Annam Yousif , Ph.D	University of Diyala \ College of Basic Education
14-	Inst. Amthal Mohammed , Ph.D	University of Diyala \ College of Education
15-	Inst. Nazar Husien wahi , Ph.D	University of Diyala \ College of Basic Education

4.5.4 The Pilot Administration of the Test

After ensuring the validity of the test , a pilot administration of the test is carried out on October 21st , 2012 . the test has been given to 100 students who were not enrolled in the main study and (Al –Adnanyia) secondary school for girls was randomly selected from other secondary schools for girls in Diyala governorate . It should be noted that the aims of the pilot administration are :

1- Checking the time that students need to finish the test ,

2- Making sure of the clarity of the test items and instruction,

3- Identifying the discrimination power and the difficulty level of the tests` items , and
4- Determining the reliability of the tests .
5- Identifying any problem.
6- Indicating any modifications or changes needed.

In the pilot study the students read the two reading passages and answered the questions that follow. The test papers were then corrected. Many points were revealed for the researcher: First, it was noticed that the instructions were not clear and so more instructions were added to make them clearer. Second, the participants indicated that they need more time as the time allotted for them to finish the test was only 40 minutes, So the researcher decided to give them (60 minutes instead of 40).

4.5.5 Test Reliability

Reliability is one of the basic criteria for any test . It can broadly be defined as the accuracy and consistency of instrument (Pumfrey , 1977 :50) . Lado (1972: 330) consider it as a quality of the test scores which refers to the consistency of measures across different items , test forms , raters and other characteristics of measurement context . Consistent measuring means the stability of the test scores despite the differences in the date of testing and scoring and form of the test . Accordingly , the more the test scores are consistent in different occasions , the more the test is reliable (Lado , 1961:330)

Heaton (1988 :155) explains that if the same test is given to the same subjects or matched subjects on two different occasions , it should yield similar results .Reliability measured in this way is commonly referred to as test \ retest reliability .

There are several types of reliability which they are internal consistency , equivalent or alternative form , and inter judgment . The most common form of reliability is the internal consistency . It attempts to measure the relationships between various items in the test (Otto et al , 1977:199) . Various methods can be used for estimating test reliability such as : split

-half , Cronbach Alpha , Kuder-Richardson-20 , equivalent forms , and the test retest .

A week later on October 28th , 2012 , the 100 participants who shared in the pilot study were given the test again and the internal consistency of the test was measured to be 0.87 in Kuder Richardson-20 formula which is considered a high percentage of reliability. So findings indicate that the test with its different dimensions is highly reliable.

4.5.6 Item Analysis

Item analysis is the process of evaluating single test items in respect to certain characteristics .It usually involves determining the difficulty level and the discrimination power of each item (Scannel ,1975 :215) .

After scoring the test papers of the pilot study sample , the researcher intends to find out whether the reading comprehension test items are too difficult or too easy . Lado (1964 : 342) states that " Item analysis is the study of validity , reliability , and difficulty of test items taken individually as if they were separate tests " .

4.5.6.1 Difficulty Level

To show the level of difficulty of each component of the scheme , the same sample of the pilot test has been used to find out the difficulty level . Thus , the researcher has separated two subgroups of test papers , an upper group 27 students who have gained the highest mark consists of 27% of the number of pilot sample students . The researcher has selected 27 students who gained the lowest mark to represent 27% of the number of pilot sample students . Thus , the formula of difficulty level has been computed on the first two groups . the results have indicated that all the items are of acceptable level of difficulty , since " any item whose difficulty level ranges from 0.20 to 0.80 is acceptable (Madsen , 1983:182) . See Table (10)

4.5.6.2 Discriminatory Power

Discrimination power means the degree to which the test discriminates between learners with high and low achievement (Gronlund , 1981 : 268) . According to Stanley & Hopkins (1972 : 450) it refers to a measure of the extent to which an item distinguishes the more able or good testees from the less able or poor testees .

In order to measure the discrimination power of each item the formula of discriminatory power has been used .

The discrimination power of each item of reading comprehension test has been computed by subtracting the number of students in the lower group who answered the items correctly from the number of students in the upper group who got the item right and dividing the result by the number of students in either group .

After the application of the discrimination power formula it has been found that the discrimination power of the test items range between (0.30 to 0.63) which consider according to Brown (1981 : 104) suitable discrimination level . See Table (10)

Table (10) The Difficulty Level and Discrimination Power of the Items of the Reading Comprehension Test

Item No.	Difficulty Level	Discrimination Power
1-	0.26	0.44
2-	0.43	0.56
3-	0.48	0.44
4-	0.56	0.37
5-	0.44	0.30
6-	0.46	0.56
7-	0.48	0.37
8-	0.44	0.37
9-	0.52	0.44
10-	0.43	0.56
11-	0.48	0.30
12-	0.52	0.33
13-	0.50	0.40

14-	0.44	0.44
15-	0.44	0.44
16-	0.50	0.48
17-	0.57	0.41
18-	0.46	0.33
19-	0.44	0.52
20-	0.48	0.30
21-	0.44	0.37
22-	0.48	0.59
23-	0.43	0.63
24-	0.52	0.52
25-	0.52	0.52

4.5.6.3 Distractor Analysis

The last step in analyzing an item is distractor analysis. It is used with multiple-choice items to show which distractors were chosen more often than others. If good students choose the correct answer and the rest randomly choose wrong distractors besides the correct answer, then it is a good item. If a distractor was not chosen at all, then it adds no real value to the test and it should be revised. See Table (11)

Table (11) The Distractor analysis of multiple – choice items

Item no.	The Distractor analysis of multiple – choice items			
	A	B	C	D
1-	\	14.0 -	18.0 -	11.0 -
2-	\	22.0 -	14.0 -	18.0 -
3-	22.0 -	11.0 -	\	11.0 -
4-	\	07.0 -	18.0 -	07.0 -
5-	14.0 -	\	07.0 -	07.0 -
6-	18.0 -	14.0 -	\	25.0 -
7-	22.0 -	\	07.0 -	07.0 -

4.6 The Experimental Application

The experiment started on 4th November , 2012 and ended on 9th January , 2013 . The experiment lasted for 10 weeks for the academic year 2012-2013 . The lessons were arranged for both groups on Monday , Tuesday ,Wednesday and Thursday of each week . The experimental group was taught by using Six Thinking Hats (STH) , while the control group was taught by using the traditional method . The researcher prepared atypical plans one for the experimental group which is constructed according to six thinking hats method , and the second one for the control group which is adopted from the teacher`s guide of book 8, (Iraq opportunities 2012). (see appendix D & E) and she discussed the lesson plans with the teachers of English in the preparatory school in which the experiment was conducted and with experts in teaching EFL. The procedure for data collection was divided into the following three main phases:

1. Before the treatment.
2.Treatment.
3. After the treatment.

4.6.1 Before the Treatment

The experimental group of the study was given orientation activities on STH method . To clarify, a week before the study started, the researcher implemented a few techniques to turn the traditional classroom into a STH context. First of all, the researcher prepared the climate for STH by dividing the classes into six heterogeneous groups based on the English average grades of the previous year. The principle of the heterogeneous grouping in this study aimed at ensuring that each group was consist of students with different academic achievements. Besides, the seating arrangement was also changed, form rows where students sit facing each other's back, to students sitting face to face with their group members.

Following dividing them into heterogeneous groups, students named their own groups by giving it a name of their favorite colored hat . Thus, each group was referred to by their hats instead of their own names. Having finished the teambuilding, the researcher, imposed some rules and

regulations in order to facilitate learning skills, individual accountability and democracy in the management of the groups. Examples of these rules as cited in (Liang, 2002):

1. Respect each other's points of views.

2. Be brave to express yourself in your group.

3. Ask for help from your classmate if you have any difficulty in learning.

4. Help your group mate whenever she or he needs you.

5. Every individual in the group is important.

6. Don't chat with group mates during discussion.

7. Don't laugh at your classmates when they make mistakes.

8. Don't swing chairs while seated in groups.

9. Don't shout at your teammates.

10. Work in the spirit of "All for one and one for all".

11. Distribute roles; give each member a particular role to play.

Students were informed that they had to rotate roles every week. That is, the member who was a leader the first week, was a reporter next week etc… The rotation was to ensure that each student had an equal chance to experience different kinds of responsibilities.

4.6.2 The Treatment

1- Experimental Group

Treatment in this group involved using Student Team Achievement Division :

1-Students listen to the whole text to get a general idea about it.

2-Students read the text again and engage themselves in an intensive reading to master the material they have read with

every member having his or her own responsibility or role. To clarify, one of the students reads, the other checks the new words in a dictionary, one of them records notes and meanings of the new words and the other one monitors the time.

3- The teacher gives the students worksheets or questions about the material they have already studied, reading passage, to help them control the learning goals .

4- The teacher gives them sufficient time to work together to understand the questions presented and to negotiate the possible answers in English.

5. The teacher goes around and checks out that all students are sharing and that different responsibilities are being shared among them.

6- The teacher gives students individual quizzes to check the understanding of each student in every group at the end of every session . The teacher corrects the individual quizzes and compares them with the students' pervious grades to follow students' improvements.

7- The average score of the members of each team is calculated to find out team mark.

8- The teacher recognizes and rewards the best three groups on regards of their marks.

9- The teacher also checks the individual's improvements by following up their quizzes and rewards those who are improving after comparing them with their previous grades.

Control Group

Here the students sit individually and not in groups through the lesson. Teachers uses the most popular method of teaching in Iraq which is the traditional method where the teacher presents the lesson in the form of lecture and demonstrations. Teachers ask students questions and the students answer individually.

4.6.3 After the Treatment

After 10 weeks of the treatment, the post test of reading comprehension was applied to the experimental and control groups , and the results were collected and statistically analyzed.

4.7 The Teaching material

The teaching material consists of five reading comprehension texts which called literature spot that taken from the students` textbooks of book 8, (Iraq opportunities 2012) , which they are :

1- What is Poetry and Figures of Speech .
2- William Shakespeare and his poem (Shall I Compare Thee) .
3- Bader Shakir Al-Sayyab and his poem (Rain Song) .
4- Mohammed Mahdi Al-Jawahiri and his poem (O Blessed Tigris) .
5- William Blank and his poem (Two Sunflowers Move in Yellow Room).

4.8 Statistical Tools

The following statistical tools are used in this study :

1. The t-test for tow independent samples . This procedure is used to find out the significance of different the experimental and control groups in the following :
   a. Age of the students
   b. Achievement of the students in the third year of the intermediate school .
   c. Achievement of the students in the pre and post - test .

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\frac{S_1^2 + S_2^2}{n-1}}}$$

$\overline{X}_1$ The mean of the experimental group
$\overline{X}_2$ The mean of the control group
S_1^2 The variance of the experimental group
S_2^2 The variance of the control group
n The number of the subjects

(ميخائيل ، 1997 : 122)

2. Chi – Square : It is used to test the equality of the two groups (experimental and control) in the parents` level of education .

$$\chi^2 = \frac{\Sigma (O - E)^2}{E}$$

Where :
X^2 The value of chi-square
O The observed frequencies
E The expected frequencies

(Ferguson & Takane , 1989:221)

3. Difficulty Level : It is used to estimate the difficulty level of each item of the test .

$$P = \frac{n_u + n_L}{2n}$$

P The difficulty level
n_u The correct answers in the upper group
n_L The correct answers in the lower group
n The total number of subjects

(النبهان، 2004 : 199)

4. Discrimination power :- The following formula has been used to determining the discrimination power of the test

$$D = \frac{P_u - P_L}{\frac{1}{2}(n)}$$

D Discrimination power
P_u The correct answers in the upper group
P_L The correct answers in the lower group
n The total number of subjects

(Gronlund , 1981 : 268)

5. Kuder Richardson – 20 : The following formula have been used for estimating the test reliability .

$$KR_{20} = \frac{n}{n-1}\left[1 - \frac{\sum Pq}{S_X^2}\right]$$

n The number of items in the test
P Proportion of the subjects who answered the given item correctly .
q 1- p
S^2_X The variance of test scores

(Rosco , 1975 : 105)

Chapter Five

Results , Conclusions , Recommendation , and Suggestion for Further Studies

5.0 Introductory Note

This chapter includes the comparison between the experimental and the control groups in the post test scores , discussion of results , conclusions , recommendation and suggestion for further studies .

5.1 Results

5.1.1 Comparison between the Experimental and Control Groups in the Posttest Scores

The results obtained from the application of the posttest on the two groups show that the mean scores of experimental is 17.93 and that of the control group is 15.70 . The computed t – value 2.799 is higher than the table t-value 2.001 at 0.05 level of significance and under 58 degrees of freedom . See table (12) .

Table (12) The Mean Standard Deviation and T-value of the Subjects` Achievement in the Posttest

Groups	No. of subjects	M	S.D	df	T- value	
					Calculated	Tabulated
E G	30	17.93	3.759	58	2.799	2.001
C G	30	15.70	3.7614			

This result shows that there is a statistically significant difference between the two groups in the reading comprehension posttest scores in favor of the experimental group (see appendix L) .This means that , the experimental group is better than the control group ; so the hypothesis which indicates that there is no statistically significant differences at (á≤0.05) between the mean scores of reading comprehension post test of the experimental group who is taught reading comprehension according to Six Thinking Hats method and that of the control group who is taught reading comprehension according to the traditional way refused .

5.1.2 Discussion of the Results

In the light of the finding of this study, it can be stated that Six Thinking Hats Method was highly effective in the students' levels of reading comprehension skills in the experimental group compared to control group results. Returning to the research hypotheses of the study, statistical data and analyzing the students' performance pointed out that a relatively substantial amount of achievement has occurred in along different areas of the levels of reading comprehension skill . No doubt, such an advance would become both indicative and meaningful to all those concerned with teaching or promoting teaching English as a foreign language .

One explanation could be attributed to the positive interdependence and the individual accountability of STH which enhance the exploratory learning environment where students ask for help, share ideas and exchange views. The researcher observes that all members of each group keep working together to maximize their own learning and each other’s learning. They keep working on their assignments until all group members successfully understand and complete the task. Such a studying environment encourages all students to work hard to contribute the success of their group.

A second explanation could be attributed to the group autonomy. In fact, the students in the experimental group are encouraged to look for resources rather than relying solely on the teacher. For example, when students want to ask about the meaning of new words they first ask each other and then look them up in their dictionaries instead of asking their teacher. Thus, the researcher as a teacher trusts peer interaction and gives the students the opportunity to do many things by themselves. This sense of group autonomy encourages the individual learners to become more independent and capable of being lifelong learners' even when they work later outside their groups. They learn how to focus on information, look up new words in a dictionary and answer the questions which means that learners of STH method are active in depending on themselves .

A further explanation could be based on Vygotsky sociocultural theory which views humans as culturally and historically situated, not as isolated individuals. The way that students help each other learn, rather than learning individually, enhances the process of scaffolding (Pritchard, 2009). Scaffolding in the present study is not provided to students by teachers, instead it is provided by more capable peers and even by students at or below students' current level. Thus, the researcher observes that in STH method , students work in heterogeneous groups in which scaffolding takes place as students work collaboratively.

One more important explanation is that the learning process could be enhanced as a result of explaining the material to someone else which is one of the most effective means of retaining the material. Different ideas from different group members also help the students in the experimental groups promote better understanding of the material from many different perspectives.

5.2 Conclusions

Conclusions from this study may be summarized as follows:

STH is a method that provides learners opportunities to actively develop skills that enable them to locate, gather, analyze, critique and apply information in a wide range of contexts as they develop understanding. When STH method is implemented well in a school , the following criteria are being met, or there is demonstrable progress towards these criteria being met.

1. Students are actively supported and scaffolded by teachers in the acquisition of relevant skills.
2. Students are engaged in learning.
3.Students find this method stimulating and enjoyable .
4. Students deepen or gain understanding of core concepts relevant to the context.
5. Students work collaboratively in small groups.
6. Students use and apply the information then share their solutions, decisions, thinking and outcomes in a celebration of understanding. They are not involved in a process of shifting and sharing information.
7. Students predicate their work on prior knowledge.

Students of the experimental group in the present study are the center of the learning process. They are dominant most of the time; in many instances . They initiate negotiations with their peers when learning within their groups more than they do when learning in a whole class. STH method context is an ideal environment for better second language acquisition, particularly in enhancing reading comprehension since learners feel relaxed , less threatened and more comfortable when interacting with peers, than when interacting with the teacher. The researcher observes that even when STH class period lasts for 45 minutes , students seem to be motivated and do not lose interest till the end. The STH method encourages the non active learners to be active in the classroom, they are no longer ignored, on the

contrary, they have equal opportunities to participate and express their ideas to their peers without being shy.

5.3 Recommendations

In the light of the results, the researcher recommends the curriculum designers and decision makers , the school administrations and supervisors to follow the following :

1. Recommendations to Curriculum Designers and Decision Makers

In this domain the researcher suggested the following recommendations to the curriculum designers and decisions makers because she thinks that they play a great role in activating methods of teaching:

1. Decreasing the number of the students in the single classroom to enable teachers to implement modern methods of teaching specially Six Thinking Hats method .
2. Developing teacher's abilities in teaching English by holding training courses based on the innovative methods like Six Thinking Hats .
3. Encouraging and motivating the teachers to develop their performance .
4. Modifying the system of assessment and evaluation in schools to suit the innovative approaches as Six Thinking Hats .

2. Recommendations to Teachers of English

Teachers are the people who work in the field of teaching , so the researcher recommended them to:

1. Adopt modern techniques that enhance students' participation and interaction such as Six Thinking Hats .
2. Consider students' individual differences and make the class as a suitable environment for all students to participate in the classroom activities.

3. Help students become more aware of the fact that reading is a highly interactive process.
4. View themselves as facilitators of learning opportunities inside and outside the classroom. In other words, when learners become more active, the teacher will no longer be the sole source of information.
5. motivate students and provide them with suitable reading materials to help them discover knowledge, concepts and relations in the texts.
6. adopt and adapt the updated and appropriate methods in teaching reading and try to overcome the challenges and the difficulties.
7. adapt educational technology in order to create enjoyable learning.

3. Suggestions for Further Studies

In order to extend the findings of this study, the researcher suggests the following:

1. Conducting studies based on six thinking hats not only on reading comprehension skills but also on other skills as listening, speaking and writing.
2. Conducting studies based on other types of inductive methods such as Six serving men , Lotus blossom , Game storyboarding , DO IT .
3. A comparative study should be conducted to compare methods used in teaching reading for the secondary grades in Iraq and other Arab countries where English is taught as a foreign language.

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Appendix (A)

Ministry of Higher Education
And Scientific Research
University of Mustansiriyah
College of Basic Education
Department of Higher Studies

Dear Sir \ Madam

The researcher intends to conduct an experimental study entitled " ***The Effect of Using DeBono`s Method of Thinking to Enhance Reading Comprehension Ability of Iraqi EFL learners at Secondary Schools*****"**. The population of this study is limited to fourth year secondary and preparatory schools for girls in Diyala Governorate during the academic year 2012-2013 .

As an expert in linguistics and in the field of TEFL , you are kindly requested to pass your judgment on the validity and suitability of the attached test and the lesson plans for (an experimental and control groups) to fit the requirements of the study as they are stated in the title . The researcher will take your recommendations and suggestions into consideration .

Thanks for your help

M.A Candidate
Samiya Mohammed Razoqey

Appendix (B)

The Initial Version of Pret-Test

Read the following passage carefully and then answer the questions below :

They could see the smoke from the end of the street. "It's our house!" Elsa shouted. "It can't be," Alan said. But he knew that Elsa was right and they both began to run. There was a small crowd in the street outside their house. Smoke was coming out of the front window of the downstairs room, but there was no sign of any flames. And there was no sign of old Mr. Cox, Elsa's father. He lived with them and had a room upstairs at the back of the house. He was not among the people in the crowd.

"Alan!" his wife shouted. "He's asleep upstairs! He probably went to bed and left the fire on in the front room!" Her husband began to push his way through the crowd towards the front door."Don't be a fool!" someone shouted. "Wait for the firemen. They'll be here any minute." But Alan knew that he must not wait. He put a handkerchief over his face and ran up the stairs. He pushed open the door of his father-in-law's room. Old Mr. Cox was sleeping peacefully.

"What's the matter?" he cried as he woke up."Nothing to worry about. Just a small fire downstairs," Alan told him. "Now, get a coat on and put a handkerchief over your face like this." At the top of the stairs Alan made old Mr. Cox climb onto his back. Then he put a handkerchief over his own face and went down the stairs as quickly as he could. There was a cheer from the crowd as he came out of the house .The fire engine and an ambulance arrived more or less at that moment. The first flames were Just beginning to come out of the front window. "It's all my fault!" moaned old Mr. Cox as they carried him into the ambulance. "I was reading the newspaper and I left it near the electric fire."

Q1\Choose the right answer for the following items. **(6 marks)**

1. Elsa and Alan ran to their house because they saw ----------.
a) flames b) smoke c) a crowd d) Mr. Cox

2. Outside their house Elsa and Alan found ----------.
a) their family b) Elsa's father c) some people d) Alan`s friend

3. Elsa's father lived----------.
a) in the street b) in the next house c)in the front room
d) in the shelter

4. Alan went into the house because he wanted----------.
a) to see the fire b) to talk to Elsa's father c) to save Elsa's father
d) to see the crowd

5. When Alan found him, Elsa's father was---------- .
a) behind the door b) on the stairs c) in bed d) in the kitchen

6. Alan brought Elsa's father out of the house---------- .
a) in his arms b) in his coat c) on his back d) in the blanket

Q2 \Complete these sentences, using key words in the box.

(6 marks)

(fault - matter – crowd - fire - sign - upstairs , kitchen , policemen)

1. I'm sorry they disturbed you while you were a sleep It really wasn't my ---------- .

2. Luckily my room is ---------- , and at the back of the house too, so it's quite peaceful!

3. There's no ---------- of any flames, but I'm sure I can smell smock .

4. Please don't leave the electric ---------- on when you go out.

5. What on earth's the ----------?

6. There's a big ----------in the street and an ambulance is just coming!

Q3 \ Match the words from the list A with their synonyms from the list B. **(6 marks)**

A	B
There was no sign of Any minute Stairs Peacefully a cheer ambulance	a shout of happiness they couldn't see (him) very soon a car to take people to hospital silently Set of steps in the house Clear Policemen car

Q 4 \ A- What do the words in italics refer to? (3 marks)

1. But *he* knew *she* was right.
2. *He* lived with *them.*
3. *"They'll* be here any minute."

B - State whether the following items are <u>True</u> or <u>False</u> . (4 marks)

1- Elsa's father left his newspaper near the electric fire.
2- Smoke came out of the kitchen .
3- The firemen were save Mr. Cox .
4- The fire engine and an ambulance arrived too late .

(25 marks)

The passage adopt from ((Donn Byrne (2003) : " Intermediate comprehension passages "Longman)) .

Appendix (C)

The Initial Version of Post-Test

Read the following passage carefully and then answer the questions below :

A few years ago, while I was on holiday in the Himalayas, I stopped for the night in a small village. It was a very poor place and there was no proper hotel, but the owner of a restaurant offered me a bed for the night. "Please wait here," he said, pointing to a table just outside his restaurant ,"while I prepare your room." It was a beautiful evening. The sun was setting behind the dark mountains and the stars were just beginning to come out. The villagers were lighting fires for their evening meals and there was a pleasant smell of wood smoke in the air.

Then I noticed that I was no longer alone. Someone was sitting at the table beside me. He was an old man with a long white beard. His clothes were dirty and almost in rags. "What do you want?" I asked. "Let me tell your fortune, sir," he said. I laughed. "I don't believe in that sort of thing," I told him. All the same, the old man took hold of my hand. "I can tell you your future," he said. I tried to take my hand away, but the old man held on to it, gently but very firmly.

"Very well." I said. "But first of all tell me about my past. If you can tell me about that, I'll let you tell me about the future too." The old man looked hard at my hand for a long time without speaking. I smiled to myself. "He can't do it," I thought. Then, in a low soft voice, the old man began to tell me about my childhood. He talked about my family and the town I used to live in. He went on to tell me about my life in different parts of the world. Every word he said was true! "Stop!" I said. "How can you know all these things?" "I know about the past and the present," the old man replied. "And I also know about the future. Are you ready to hear about your future too?"

I hesitated. Did I really want to know? Just at that moment, the owner of the restaurant came out. "Your room is ready now, sir," he said. "Oh! I thought I heard voices. Were you talking to someone?" I looked round. The old man was not there. "Yes," 1 said. I described the old man. "Oh, him!" the owner of the restaurant said. "That's the village lunatic! He thinks he can tell people's fortunes! I hope he wasn't a nuisance!"

Q1\ Choose the right answer for the following items.(7 marks)

1. The traveler was looking for ----------.
a) somewhere to sleep b) something to eat c) something to do
d) someone to talk to

2. The traveler sat outside because----------.
a) he was waiting for his room b) it was a pleasant evening
c) the restaurant was small d) the restaurant was crowded

3. The old man wanted to talk about----------.
a) the village b) money c) the traveler's future d) his life

4. The traveler asked to hear about his past life because---------- .
a) he did not believe in the old man b) he did not want to know about his future c) it was interesting d) he wanted to remember something

5. What the old man told the traveler was----------.
a) funny b) correct c) different d) wrong

6. When the old man wanted to talk about the traveler's future. The traveler----. a)
was afraid b) could not speak c) could not decide d) refused

7. The owner of the restaurant thought that the old man was----------.
a) clever b) mad c) unhappy d) a wise man

Q2\ Complete these sentences, using key words in the box .

(6 marks)

(beard , nuisance , childhood , gentle , lunatic , proper , traveler , afraid)

1 . What did he look like? Well, he had a long …….. and his clothes were almost completely in rags .
2. Let's look for a……. ... restaurant. Perhaps there's one in that hotel over there.
3 .Please don't be a ……. ! I don't want you to tell my fortune .
4. Does he really keep a gorilla in his garden? Well, in that case he must be a …… !
5 .Is it true you spent your …….. in different parts of the world ?
6 .Everyone likes her voice probably because it's soft and …..... .

Q 3 \ Match the words from the list A with their synonyms from the list B . **(6 marks)**

A	B
Hesitated Lunatic Rag Nuisance Proper Pleasant	Suitable bother Old and torn think twice Lovely Crazy Boring Damage

Q 4 \ Complete the table with the phrases below .(6 marks)

A traveler \ an old man tells a traveler about his past \ outside a restaurant \ a village in the Himalayas \ late evening \ a restaurant owner

Places	**Time**	**People**	**Events**

(25 marks)

The passage adopt from ((Donn Byrne (2003) : " Intermediate comprehension passages "Longman)) .

Appendix (D)

A Lesson Plan for the Experimental Group

Subject : Literature Spot
Grade level : 4th Preparatory
Date :
Time and Length of Period : 40 Minutes

Goal : Bader Shaker AL- Sayyab (Rain Song)

Objectives : Students will be able to :
1. Understand what is meant by six thinking hats method and to use it successfully .
2.Be familiar with the poet`s life and his poetry. and identify the main ideas of reading texts .
3.Scan the text for specific information concerning the poet and his poem.
4. Deduce the meaning & the opposites of some words.
5. Distinguish between facts and opinion about the poet`s life .
6. Make a prediction about what the poem may be about.
7. Understand free verse (poetry which does not rhyme or have meter unlike classical poetry).
8. Read the text and answer the comprehension questions .

Materials

1- Student`s book ,
2- Dictionary,
3- Blackboard and chalk ,
4- Sheets and pencils,
5- Colored hats (white , green , red , blue , black , yellow) and
6- A picture of the poet with his biography .

Key Words : -

The Text :- imprisoned , political , legends , despotism , traditional , a shared heritage , inspiration , mythology , poverty .

The Poem :- husbanding , thunder , lightning , plains , seal , trace , moaning , emigrants , oar , sail .

Procedures:-

1- Introduction : Before teaching the passage in the literature spot (AL-Sayyab) by the use of the six thinking hats the teacher gives the students an introduction and makes a simple presentation for its steps and how she will implement it in the class, clarifying the reason beyond using the hats and its benefits focusing on the importance of thinking in their life.

The teacher will:

• write the title on the board and read the passage aloud while the students listen .
• Ask the students to read the text alone .
• Help students activate their background knowledge.
• Help students establish purposes for reading.
• Encourage students to generate questions.
• Ask students to make predictions about text.

2- Divide students into six groups and each group consists of 5 members .

3- Each group Reincarnation the role of the hat that they are wearing .

4-The use and order of hats in the class are explained below :

White Hat: The students are first asked to put on their white hats . under this ‘hat’ the students discuss what they know, what they do not know and what they want to find out about the topic . The students’ thoughts are brought out using the brainstorming method. Activating prior knowledge by considering what is

already known about a content topic but without giving any predictions .
For example, the teacher asks such questions and students try to answer :

- Where was AL–Sayyab born and when ?
- Where was Jekor ?
- What did he work and where ?
- How many governorates are there in Iraq ?

Then the student put on The **Red Hat** which is for emotion and hunches. Think of blood or your heart. The beauty of the Red Hat is that it allows you to say how you feel without justifying it. In fact, the Red Hat should be used for less time than the others as it is purely the chance to say things like ‘great idea’ or ‘I feel uncomfortable about that’ without entering into prolonged reasons ' why '.
For example, the teacher asks such questions and students try to answer :

- What is your opinion about the poet (AL-Sayyab)?
- How do you feel about this poet ?
- Do you like his poem (rain song) ?

Then the students put on the **Yellow Hat** and then the **Black Hat** because they tends to operate in tandem, although you would never wear more than one hat at any time. Yellow is for logical positives, benefits, advantages, feasibility (think of sunshine) , and Black is for caution, risk assessment, downsides or dangers (think of a judge’s robes). Some mistake the Black Hat as the ‘naughty’ hat or perceive it in a negative way, but in fact it is the most important hat as it allows us to analyze risks and set up the road map for improvement that can be addressed by the next hat.
For example , the teacher asks such questions and students try to answer :

- According to the text , why is Bader Shaker AL-Sayyab`s poetry important ?
- Could you mention some other Iraqi poets ?
- Could you mention some foreign poets ?
- There were different types of rain , what were they?.and how do different types make you feel ?
- Why he was fired and imprisoned ?
- Do you think he was a bad person ?
- How was Iraqis' life during the 1940s ?Comment according to your information .

Now Ask students to put on **The Green Hat** that creates a circumstance for creativity. It allows them to explore alternatives, possibilities and new ideas without being bogged down by evaluation of those ideas (which comes later). Think of grass, trees and natural energy.
For example , the teacher ask such questions and students try to answer:

- Find examples in the poem of personification .
- What is the general tone of the poem (e.g. optimistic , gloomy , etc)? Give reasons for your answer .
- What did he use in many of his poems and why ?
- What was his style in writing poetry and about what did he write .

Finally, the **Blue Hat** is the chairperson's or the metacognitive hat (think of blue sky representing overview of the whole process). The Blue Hat wearer facilitates the whole process, and at some point the whole group would done their Blue Hats in order to reach a conclusion or to decide on next steps.
For example , the teacher asks such questions and students try to answer:

- Do you agree that mankind has a common heritage? Give reasons for your answer .

- He was the first poet to use the mythology of ancient Iraq (true or false) .
- Was he influenced by foreign poets ?
- How was his economical state when he was died , and in any age ?

Evaluation

- Asks students to ask questions , and their other colleagues answer these questions .
- Leads an oral discussion to sum up the main ideas and the supporting ones.
- Comment on the students` answers .

Home work : -Write a paragraph about whose the students favorite poet to be read in the class next lesson.

Appendix (E)

Lesson Plan for the Control Group

Subject : literature spot
Grade level : 4th Preparatory
Date :
Time and length of period : 40 Minutes

Goal : Bader Shaker AL- Sayyab (Rain Song)

Objectives : students will be able to:
1.Be familiar with the poet`s life and his poetry , and identify the main idea of reading texts .
2.Scan the text for specific information concerning the poet and his poem.
3. Deduce the meaning & the opposites of some words.
4. Distinguish between facts and opinion about the poet`s life .
5. Make a prediction about what the poem may be about.

6. Understand free verse (poetry which does not rhyme or have meter unlike classical poetry)
7. Read the text and answer the comprehension questions .

Materials

1- Student`s book ,
2- Dictionary ,
3- Blackboard and chalk ,
4- Sheets and pencils.

Key Words : -

The Text :- Imprisoned , political , legends , despotism , traditional , a shared heritage , inspiration , mythology , poverty

The Poem :- husbanding , thunder , lightning , plains , seal , trace , moaning , emigrants , oar , sail .

Procedures

Introduction : Before teaching the passage in the literature spot (AL-Sayyab) , the teacher will :-

• writes the title on the board and read the passage aloud while the students listen .
• Ask the students to read the text alone .
• Help students activate their background knowledge.
• Help students establish purposes for reading.
• Encourage students to generate questions.
• Ask students to make predictions about text.

The teacher will divide the lesson into three parts :

A- Before Reading :- The teacher will

1-Read the text and the poem and ask students for any information about Bader shaker AL-Sayyab and his poetry that they can think of , and write it on the board .
2- Ask the students to discuss quickly in pairs the meaning of each word or phrase and how they think it could be related to

the poet`s life , e.g. maybe he wrote traditional Arabic poetry . ' perhaps he was inspired by Iraqi mythology .'

3- Ask students to tell their predictions , and write some of them on the board , Students read the text about AL – Sayyab to check their predictions . Then ask them which things they have guessed correctly .

B – Reading : The teacher will

1- Draw students` attention to the title of the poem, ' Rain Song ' and ask them to think of as many different types of rain as they can .

2- Ask students to read the poem in pairs referring to the glossary for any unfamiliar vocabulary .

C- After Reading :- Teacher Evaluation

* Check student`s understanding of the text and the poem .
* Assess their reading comprehension .

Home work : -Writing a paragraph about your favorite poet to be read in the class next lesson.

المستخلص

يشكو مدرسو اللغة الانكليزية باعتبارها لغة احنبية في العراق من ضعف مستوى طلبتهم في الاستيعاب القرائي و لا سيما عند الإجابة على الأسئلة التي تتطلب مستوى معين من التفكير والسبب في ذلك يعود إلى تركيز المدرسين على نمط معين من التدريس وطرق تقليدية قائمة على الحفظ والاسترجاع إضافة إلى تركيزهم على الجوانب النظرية وإهمالهم الجوانب العملية في المناهج الدراسية . وبهدف المساعدة في إيجاد حل مناسب لهذه المشكلة اقترحت الباحثة استخدام طريقة جديدة تعتمد على التفكير الإبداعي وهي طريقة القبعات الست للدكتور ادورد ديبونو لتعزيز قابليات الاستيعاب القرائي للطلبة وحثهم على استخدام مهارات التفكير الإبداعي للتفاعل مع النص ولتمكين المدرسين من إشراك طلبتهم في عملية تفاعلية متكاملة داخل الصف .

تهدف الدراسة الحالية التحقيق في اثر استخدام قبعات التفكير الست لادورد ديبونو في تعزيز قابليات الاستيعاب القرائي لطلبة الصف الرابع عام في المدارس الثانوية في محافظة ديالى . ولتحقيق هدف الدراسة فرضت الباحثة الفرضية الصفرية التالية ((ليس هناك فروق ذات دلالة إحصائية عند مستوى دلالة (0,05 %) بين متوسط درجات الطلبة في المجموعة التجريبية (التي تدرس الاستيعاب القرائي باستخدام طريقة القبعات الست) ومتوسط درجات الطلبة في المجموعة الضابطة (التي تدرس الاستيعاب القرائي بالطريقة التقليدية) في نتائج الاختبار البعدي . لذا , تبنت الباحثة التصميم التجريبي وتكونت عينة البحث من 60 طالبة من طالبات الصف الرابع الإعدادي من ثانوية جويرية بنت الحارث للبنات في محافظة ديالى للفصل الدراسي 2012 -2013 , حيث قسمت الباحثة عينة البحث إلى مجموعتين متكافئتين (30) طالبة في المجموعة التجريبية حيث درسن الاستيعاب القرائي بطريقة القبعات الست , و (30) طالبة في المجموعة الضابطة حيث درسن بالطريقة الاعتيادية . وقد كافأت الباحثة كلتا المجموعتين في عدد من المتغيرات منها أعمارهن , مستوى التحصيل الدراسي للوالدين , مستوى تحصيلهن في اللغة الانكليزية في مرحلة الثالث متوسط إضافة" الى نتائج الاختبار القبلي . حيث قامت الباحثة بتصميم كلا الاختبارين (القبلي والبعدي) وخطة الدرس وتم التأكد من صلاحية وصدق الاختبارات وخطة الدرس بعرضهما على الخبراء في مجالات طرائق تدريس اللغة الانكليزية وعلم اللغة الانكليزية , وتأكدت الباحثة من ثبات الاختبار من خلال معادلة كودر رتشارد سون – 20 (0,87) . وقد توصلت الباحثة من خلال التحليلات الإحصائية إلى وجود فروق ذات دلالة إحصائية بين

المجموعة التجريبية والمجموعة الضابطة في قابليات الاستيعاب القرائي في نتائج الاختبار البعدي ولصالح المجموعة التجريبية .

وقد استنتجت الباحثة إن استخدام طريقة القبعات الست في تدريس الاستيعاب القرائي يعزز أداء الطالبات واستيعابهن , وتمنحهن الفرصة لتنشيط وتطوير مهاراتهم التي تمكنهم من تحديد , تجميع , تحليل ونقد المعلومات على المدى الطويل وتنمية الفهم لديهم .

وفي ضوء النتائج قامت الباحثة بتقديم بعض التوصيات لمصممي المناهج و مدرسي اللغة الانكليزية إضافة إلى بعض المقترحات لدراسات أخرى لتعزيز الاستيعاب القرائي .

اثر استخدام طريقة دي بونو قبعات التفكير الست لتعزيز الاستيعاب القرائي لطلبة الرابع عام في مدارس العراق الثانوية

رسالة مقدمة الى

مجلس كلية التربية الأساسية / الجامعة المستنصرية

وهي جزء من متطلبات نيل درجة الماجستير في التربية

(طرائق تدريس اللغة الانكليزية لغة اجنبية)

تقدمت بها

سامية محمد رزوقي الأعجم

أشراف الدكتور

رضا غانم داخل

1434 هـ **2013 م**