The Relationship between Creative Thinking Skills and EFL Reading Comprehension of Tenth Grade Students in Palestine

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Dedication

My humble effort I dedicate to:

My father and mother who devoted all their lives to their sons and daughters with all care, love and affection, and who are the reason of what I become today.

My loving wife (Karam),

My brothers and sisters,

My children, and

All my teachers,

Without whom none of my success would be possible.

Declaration

I certify that this thesis submitted for the degree of Master, is a result of my own research, except where otherwise acknowledged, and that this study (or any part of the same) has not been submitted for a higher degree to any other university or institution. .

Signed

Wassel Atta Mohammad Abu Jabeen

Date: 9th September, 2018.

Acknowledgements

Abstract

This descriptive study aims at investigating the relationship between creative thinking skills and FL reading comprehension at Southern Hebron Directorate for a sample of 10th grade students. The population of the study consisted of all 10th grade students in the second semester of the academic year 2011-2012. The randomly sample consisted of six clusters with 199 Students. This study aims at answering the following research questions: to what extent do creative thinking skills test scores correlate with reading comprehension test scores?; to what extent are the students' reading comprehension or creative thinking skills test scores affected by gender; place of residence (city, village and camp); general ability in EFL? A number of hypotheses were derived from the above questions. However, three instruments were used to collect data. The first is two reading comprehension texts, the first is scientific and the other is literary.; the second is Torrance Creative Thinking Test (TTCT); and finally a special form to collect students' EFL marks for the 8th, 9th and 10th grade. The first tool was two texts each one contained ten questions with four multiple choice options. The second one was four chosen questions from seven of the TTCT. After completing testing the hypotheses, the researcher found out the following results; there is significant positive correlation between creative thinking skills test scores and reading comprehension test scores; there are no differences attributed to gender in the literary text, scientific one or in reading comprehension in general; there are no differences in creative thinking skills test scores attributed to gender; reading comprehension and creative thinking test scores are affected by the place of residence and the differences were in favour of city, and also both of them are affected positively by the general ability in English language. Based on the forgoing findings of the study, the researcher came up with a number of relevant recommendations. Creative thinking activities should be incorporated with reading comprehension ones and all who concern the instructional process should pay more attention to creative thinking and reading process in an early age; focussing on reading comprehension and creative thinking courses; incorporating thinking strategies and international programmes in textbooks, methodologies of teaching and training school teachers to deal with creativity inside classrooms to encourage creative productions; classes and activities could be based on creative activities in other school subjects to increase students' academic success.

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Chapter One

1.1 Introduction

Bringing up new generations to face future problems and solving them is a big challenge these days and become a goal of instructional process. Individuals should be able to generate useful ideas and creative solutions for unfamiliar problems. So, Scientists are trying to find real indicators of creative people who push the wheel of success and prosperity of their society. To understand creativity, we should discover the mental processes that occur inside our brains and in particular the linguistic domain that thinking skills interact inside 'the language'. The relationship between creative thinking skills and reading comprehension skill will be studied in this research, bearing in mind that reading comprehension widens the students' knowledge and helps them to gain new experiences that changes their way of thinking, increases their sensitivity to problems and have much better solutions.

Because thinking skills and language development seem inseparable (Piaget, 2002), a number of educators and researchers adopted and supported the idea that creativity can be motivated through learning activities, mainly reading and/or writing. (McVey, 2008; Sak, 2004; Scanlon, 2006; Smith, Paradice, & Smith, 2000; Sturgell, 2008). In addition, Kazimi (2016) reveals that individuals who enjoy more in reading obtain higher scores in the creativity test. In contrast, negative reading attitudes significantly correlated with low scores in creativity. These correlational results support the hypothesis that reading reinforces creativity. Thus the relationship between reading, writing, and thinking has been studied most widely.

Sturgell (2008) explains how reading texts provide considerable resources of creative ideas to grow. Meanwhile, McVey (2008) adds that any type of writing is creative, and reading and writing should be promoted for everlasting creative potential. Wang (2007) examines the relationship between creative thinking skills and test scores of different subjects. He points out that the creative ability of elaboration, which is one of the creative thinking skills, has a positive correlation with English reading and writing test scores, and negative one with math scores. In 1937 the National Education Association's Educational Policies Commission arrives at the following conclusion among its list of ten

"imperatives" "all youth need to grow in their ability to think rationally; to express their thoughts clearly, and to read and listen with understanding "(Costa, 1985 p.14)

Accordingly, this chapter reviews the related literature of creative thinking and reading comprehension, statement of the problem, purpose of the study, research questions, research hypotheses, significance of the study, limitations of the study, definition of terms and study assumptions.

1.2 Creative Thinking

We need talented individuals who think prospectively and creatively in unfamiliar problems and daily challenges to generate creative solutions (Blass & Williams 2016, Guilford, et. al. 1962, Torrance 1968). All of this needs serious researches to reveal any correlational connections with creative thinking skills, particularly, what is related to our educational system. As we know, teachers, methodologies, good environment affect creative outcomes of individuals. Moreover creativity can be promoted through teaching activities (Torrance, 1987). When we get an authentic research results, we can focus on them in our instructional process at our schools. Scott (2004) asserts that creativity programs have an important effect on performance, attitude and behaviours, especially on divergent thinking and problem solving. According to Horng (2005) creative instruction encourages learners to think independently, participate actively and express themselves freely. Under creative instruction, students are more likely to become creative professionals.

Many countries have started teaching creative thinking skills for a long period of time through special programmes such as CoRT, Synectics, Six Thinking Hats and CPS (Creative Problem Solving). For example, CoRt has not only applied widely there, but it has also become a part of curriculum in Malaysia, Venezuela, China, Canada, Bulgaria, Ireland, Australia, Britain and United States, (Abu Jabeen, 2010). In a related development, China applied such creative programme on 250 million students in 1986 (De Bono, 1991). So, developing creative thinking skills and predicting what promoting them have become a preference issue for educators all over the world. Swartz & Parks (1994) think that we can teach school curricula with creative thinking skills. According to Taylor and Sacks (1981), creativity exists among all people and can be developed through learning. Therefore, enabling individuals to realize their creative potential is necessary for growth and innovation,(Portillo,1996).

1.3 Foreign Language (FL) Reading Comprehension

According to scientists, any new learnt sentences or knowledge develop our understanding and incite human brain to produce more nerves that improve our thinking."The comprehension of visually presented sentences produces brain activation that increases with the linguistic complexity of the sentence" (Just et al., 1996, p.114). Reading comprehension is known as a dynamic interpretation process in which previous knowledge is applied, that demands an active and effective contact between the writer and the reader, however, the most important product of teaching reading is to have students own the skills of using the language of writing and drawing to communicate efficiently (Akyol, 2006). The process begins with a linguistic surface representation encoded by the

writer which finishes with meaning that the reader constructs. This means that there is basic interaction between language and thoughts in reading. The writer encodes thought (sends messages) as language and the reader decodes language to thought (receives the messages), where the brain starts processing data in five basic processes to have efficient result in reading which are: recognition-initiation, predicting, confirmation, correction and termination (Carrel et al., 1988). These days skills of reading comprehension focus on strategic reading skills, such as skimming, making inferences, recognizing topics, and understanding sentences (Mikulecky & Jeffries, 2004).

Wong (2012) summarizes that reading is important for many reasons, which first of all that one exposes himself to and discovers new things, promotes a self improvement, improves understanding, prepares or plans to action, gains experience from other people, communicates better with people 'tool of communication', connects to brain directly, boosts imagination and creativity. It is obvious that reading is the key to enter the world of knowledge where written words help building one character from A to Z, as well as it develops mind and increases creativity (Davis, 2016).

No one can ignore the importance of a foreign language, where reading is an essential skill for students' learning (Elley & Mangubhai,1983). Snow (2010) claims that the major challenge to individuals learning is the academic language. It uses complex words and grammatical constructions that can disrupt reading comprehension and block learning. Therefore, it is worth to measure reading's validation on our students' way of thinking when we know that there were researchers who statistically connected between reading and writing and creative thinking (Kazimi, 2016; Blass & Williams, 2016; Wang, 2012; Light, 2002). In short, we have to develop and take care of this skill in schools without ignoring the first language interference 'mother language'- Arabic. As we all know, if we would like to have a good researcher, writer, poet, etc, we should have an intensive and a good reader.

1.4 Statement of the Problem

The current study is an attempt to find possible relationship between the creative thinking skills (fluency, flexibility and originality), and foreign language (FL) reading comprehension.

Many studies have recommended that such type of thinking skills have several effects on the students' future and their ways of thinking (Al Mahri, 2005; Al Khateeb, 1993). From the educational field in our schools and self experience, the researcher noticed that our curriculums don't deal or support this type of thinking. Our methods of teaching still depend on memorization and old methodologies such as indoctrination. Different types of thinking are rarely listed in curricula, especially creative ones. A number of studies were conducted in Palestine about creative thinking skills, and they show that the percent of content that promotes creative thinking skills is low in curricula (Jawarneh, 2004; Amry, 2000). Other studies carried out internationally and in the Arab World showed the same result of such skills, and they emphasized the importance of including creative thinking skills in curriculum, as well as integrating between factors that affect creativity. Based on this, we need to find relationships between creative thinking and other educational elements that influence the process of creativity (Kazimi, 2016; Karpova, 2011; Bacanl, 2010; Munteanua 2009, Abu Jabeen, 2007; Wang, 2007; Sternberg, 2006; Abu Jadou,

2003; Canady (1993), kilani, 2001; Al Sha'ar, 1998; McCabe, 1991; Al-Shanty, 1983; Rabinsky, 1980; Mar'i, 1971; DeBono, 1970; Torrance, 1969; Guilford, 1967; Raina, 1966; Cicirelli, 1965).

On the other hand, the importance of a foreign language reading comprehension skill has brought the researcher's attention to this issue. It extends the scopes of the students and opens the door to explore different cultures. Anderson et al (1988) concluded that extensive reading in second language increases the growth of vocabulary, verbal fluency and general information. As well as any new learnt knowledge increases the nervous links in the mind which will surely enhance the ability of thinking (Buzan, 2007). Accordingly, there is a need to improve the students' language skills to develop creative thinking skills which means that language is the wide domain that all mental processes interact and occur inside (Canady, 1993). Ghaith (2003) indicates the importance of reading English as a foreign language, and so on Kilani (2001) finds that there is a positive correlation between foreign language reading comprehension and critical thinking skills. Aksan and Kisac (2009) support that there is a relationship between thinking and reading by showing that cognitive awareness skills enhance the reading comprehension. It is believed that successful integration between critical thinking and creative thinking skills and the teaching of English as a second or foreign language, have a central role in promoting creativity,(Iakovos, 2011).

It has been argued that reading comprehension and creative thinking skills are two integrated abilities and affect each other, therefore the researcher wonders if there is a statistical relationship between them, thus this study will investigate and pinpoint if there is a relationship between creative thinking skills, (flexibility, fluency and originality) and foreign language reading comprehension of 10th grade students in Palestine, and also to bring some attention to those two abilities which enable our students to get an access to knowledge and be more creative, enlightened by the previous studies and research findings.

1.5 Purpose of the Study

This study aims at investigating the relationship between creative thinking skills (fluency, flexibility and originality) and foreign language reading comprehension for a sample of tenth grade school students in Palestine. Moreover, it will discuss the effects of independent variables (gender, place of residence and general ability in English) on the dependent variables(creative thinking and reading comprehension test scores).

1.6 Questions of the Study

This study aims to answer the following questions:

1. To what extent do creative thinking skills test scores correlate with reading comprehension test scores?

2. To what extent are the students' reading comprehension test score and/or creative thinking test scores are affected by the following variables:-

a. Gender

b. Place of residence (city, village and camp)

c. Students' general abilities in the English language?

1.7 Hypotheses of the Study

This study based on several questions, so it hypothesizes the following:

1. There are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of creative thinking skills test scores of 10th grade students attributed to gender.

2. There are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of creative thinking skills test scores of 10th grade students attributed to place of residence.

3. There are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of creative thinking skills test scores of 10th grade students attributed to students' general abilities in English language.

4. There are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of FL reading comprehension test scores of 10th grade students attributed to gender.

5. There are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of foreign FL comprehension test scores of 10th grade students attributed to place of residence.

6. There are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of FL reading comprehension test scores of 10th grade students attributed to students' general abilities in English language.

7. There is no statistical significant relationship at the level of $\alpha \leq 0.05$ between creative thinking skills (fluency, flexibility and originality) test scores and FL reading comprehension skill test scores.

1.8 Significance of the Study

Reading comprehension is an important skill in teaching English as a foreign language to achieve better academic progress, and creative thinking skills are also very important mind activities that occur inside the brain to give us thoughtful products. These products could be good, new and useful or poor, traditional and useless. While a number of studies, (Arnold, 1962; Al-Suleiman, 2009; Constantino, 1997; Elley & Mangubhai, 1993) have investigated them separately, this study tries to find a relationship between creative thinking skills and foreign language reading comprehension skill as a top priority.

This study has some additions to the previous studies. Firstly, it diagnoses the level of creative thinking skills the Palestinian students have and the level of English foreign language reading comprehension whose results will reflect on the educators, curriculum specialists, teachers, supervisors, students and the community. This study will fill a gap in the research field because very few papers have been conducted in Palestine dealing with this subject.

In a related subject, foreign language today is very important for learners as many research results yielded and showed, especially English. It becomes the language of science and communication today. Therefore, We should study its effects on our students' thinking. This study comes to cover one side of English language's four skills, which is reading comprehension and its effect on creative thinking skills. A limited number of such research; several studies have discussed English as a Foreign language and critical thinking, but not creative thinking. It is also the first in Palestine. All of this gives an important dimension and necessity to examine this field since it has been rarely discussed.

Schackne (1994) studied whether there is a correlation between extensive reading and language acquisition and obtained significant results. Hughes-Hassell and Rodge (2007) studied the leisure reading habits of urban adolescence, and the results showed a strong relationship between leisure reading and academic achievement. Studies conducted by McCabe (1991) showed that academic achievement and creativity are correlated significantly. Nanda et al (1994) reported that highly creative students possessed better academic achievement. So, there is a significant correlation between good reader and achievement, and between creativity and achievement, but we will not jump to conclusions until we conduct this study and examine these overlapping variables on our sample.

1.9 Limitations of the Study

This study is limited to investigate the relationship between reading comprehension and creative thinking in English as a foreign language for a sample of public school students in three areas (city, village and camp). The study is also limited to the 10th grade students only in Southern Hebron Directorate of Education in Palestine. This study has been conducted during the second semester of the academic year 2011/2012.

1.10 Definition of Terms

Reading comprehension: is the mental ability of students to understand and elicit specific information, words, phrases, sentences and ideas from the given texts in a written form. For the sake of this study, reading comprehension ability is the result of students exam in two reading passages, the first is a literary one and the second is a scientific.

Creative Thinking:
A process of becoming sensitive to specific problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and identifying the difficulty, searching for solutions, making guesses or formulating hypotheses and possibly modifying and retesting them and finally communicating the results effectively to others (Torrance, 1976). In this

study creative thinking is measured through three creative thinking skills which are originality, flexibility and fluency.

Originality:

This refers to new ideas produced by a creative person where he or she generates unfamiliar, non contradictory, and simultaneously acceptable responses with a tendency to provide far-reaching associations of ideas. This capability can be defined quantitatively in terms of unfamiliar yet acceptable responses when stemming in response to a specific stimulus (Torrance, 1974). In respect of this study, originality refers to the number of new and unique, unrepeated ideas that students answer in TTCT, provided that they are less than 5% of total responses.

Fluency:

This is the ability to produce the largest possible number of meaningful words. According to Guilford (as cited in Al Suleiman, 2009) there are two factors of fluency: the verbal fluency, which is manifested in the number of utterings, and ideational fluency, which describes the degree of swiftness in providing a large number of ideas, regardless of the quality of responses. What matters here, as mentioned by Guilford, is the number of responses and ideas rather than single words. With regard to this study, fluency is the number of responses that students produce on each item of TTCT.

Flexibility:

This is the capability of an individual to transfer from one group to another, thereby expressing mental flexibility as well as ease of mental position. There are two kinds of flexibility: spontaneous flexibility and adaptive-flexibility. Spontaneous flexibility is the ability to produce a diversified cluster of thoughts free of dormancy and inertia. Adaptive flexibility is the ability to facilitate problem solving which becomes more obvious when the problem requires an extraordinary solution (Torrance, 1974). In this study flexibility is the number of shifting in thoughts and ideas while answering TTCT.

General ability in English as a foreign language: is an average of total achievement of three academic years for each students in English language including 8th, 9th and 10th grades.

1.11 Assumptions of the study

This study is conducted taking into account the following assumptions:
1. the texts that used in this study are appropriate to the students level.
2. Students are able to respond to the TTCT in Arabic.
3. General ability is assessed by going back to the students' achievements in 8th, 9th and 10th grades as recorded in the students' files at their schools.
4. Teachers who administrate the exam follow the instructions appropriately.
5. Students answer the questions to the best of their knowledge either in Reading comprehension or in TTCT.

1.12 Summary

  This chapter introduced a general historical background on reading comprehension and creative thinking skills. It also clarified the research problem, purpose of the study, research questions, and hypotheses, study variables, significance of the study and its limitations. Finally, the definition of terms and assumptions were presented.

Chapter Two

Review of Relevant Literature

2.1. Introduction

In this chapter, the researcher will review the theoretical background related to reading comprehension and creative thinking and some previous studies related to them.

2.2 Theoretical Background

2.2.1.The Importance of Reading Comprehension

Reading is one of the most important abilities that every pupil needs. Individuals who read independently, become better readers, score higher on achievement exams in all subject areas, and have greater content knowledge than those who do not (Krashen, 1989). Academic success for young individuals is often founded on their ability to read proficiently (Logan et al, 2011). No subject of school curriculum could be excluded because we need a good reader for the sake of a better success. Effective readers use reading comprehension strategies skillfully, so those pupils who are more successful in reading comprehension are also more successful in a lifelong learning (Kırmızı,2009). Kilani (2001) points out that reading generally brings a kind of communion with one's self or to communication. That is why students' ability to communicate ideas obtained from reading should be evaluated. Abdul Ghani (1995) considers reading as an important skill that learners of English students need in the learning process.

When reading ability of teachers or pupils is limited, the quality of instructional discussion will be limited, too. Their responses are significantly improved when they develop their levels of reading comprehension which reflects to comprehension interaction (Melnik and Merritt, 1972)

Reading can be seen as a process of talking, learning, and thinking. So, its development can produce improved talking, learning, and thinking, (Farely and Elmore, 1992).

Recognizing the characteristics of pupils with learning disabilities and deciding how to aid them is a problem that encounters schools all over the world. Schools have to consider much larger number of students with learning difficulties who cannot usually be readily classified. These individuals who present high-level learning disabilities that affect their performance on different school tasks, but the underlying problem is often their difficulty in comprehending written texts (Cornoldi & Oakhill, 1996).

2.2.2.Reading Skills

The main function of teaching reading is to have students who have efficient reading skills. Many researchers attempted to point out them. According to Tankersley (2005) there are seven abilities that good reader should have; (1) the skills to recognize words quickly and efficiently; (2) good vocabularies in relation to their age; (3) the skills to read fluently; (4) good expression, intonation, pitch and phrasing; (5) the skills to understand what they read and remember them; (6) the skills to summarize and discuss the material. (7) the skills to analyze and assess what they read, synthesize the material, make interpretations about the contents.

Niles (in Melnik and Merritt, 1972) categorized them into six parts, which can be seen as the following:

a. Word recognition: which is the ability to translate, identify orally or sub-vocally the written symbol into a spoken symbol. Using context clues, phonetic clues, structural clues and dictionaries.

b. Associated meaning with printed symbols: this is the capability to translate the phonetic principles into concepts. In early stages aural-oral vocabulary is developed, later on developing new meanings, concepts and abstract concepts are to be addressed. Accurate communication between the author and the reader cannot take place if they do not have a common understanding of the concept behind each symbol.

c. Literal comprehension: the ability to understand relationships between facts in the material. Various pattern of organization of details may produce different effects.

d. Interpretation: this is the reader's ability to go beyond written page by putting together ideas which the author has not overtly related to one another and seeing the connection between what is being read now and previous reading and life experiences. This ability helps to make inferences or drawing conclusions by piecing together various bits of information about a problem.

e. Evaluation: Here a reader makes judgments rooted in what he has read not in his personal feelings and prejudices. That reader depends on his background experience or earlier reading. Evaluations may address the logic of reasoning in the material; its style or its content.

f. Assimilation: this means the pupils' skills to make use of his reading by becoming part of them. Niles introduces three types of assimilation :
1. Assimilation of skills: Skimming, scanning, …….

2. Assimilation of concepts: relating facts on already acquired knowledge.
3. Assimilation of attitudes: the written page is a powerful instrument to change the individuals' lives. If used appropriately, it will help individuals to grow mature morally and spiritually, as well as intellectually.

2.2.3.Techniques of Reading

There are four types of reading as Grellet (1981) pointed out when working on reading comprehension. It is significant to aim for fluency as well as accuracy and to remember that different types of texts need to be read in a different way. These are:

a. Skimming: this is a quick reading where a pupils reads to get an idea of what it is about, to find out whether he needs to go into more details, to see whether a passage, for instance, is relevant what he wants.
b. Scanning: the individual here seeks for specific information, such as searching a name of person or relevant data on timetable.
c. Extensive reading: it is often a reading for pleasure goal or entertainment, such as, reading novels or stories. This type is an activity to increase fluency.
d. Intensive reading: it is reading for accuracy to extract particular details usually from short tests.

Nuttall (as in Kilani, 2006) identifies reading comprehension in a foreign language as the capability to read, without help, unfamiliar passages, at adequate speed, silently and with enough understanding. So, instructors cannot exclude the ability to read to understand. They should repeatedly guide their individuals through the process of reading when necessary to have students who can comprehend by themselves. As a result, individuals should be able to read and understand on their own. Ariel (1993, pp. 64-65) suggests reading skills to obtain this. These skills are the following:

a. Inferring the meaning and using of unfamiliar lexical items.
b. Understanding explicitly-stated information.
c. Understanding information which can be inferred but is not explicitly stated.
d. Understanding relationships within the sentences.
e. Understanding relationships between the parts of a text through lexical cohesion devices.
f. Interpretation a text by going outside it- opinions and conclusion.
g. Distinguishing between the main ideas and the supporting details
h. Recognizing different types of reading: scanning, skimming, rapid reading….
i. Tackling of interpretation by:
1. Using non-text information.
2. Word-attack skills
3. Text-attack skills
j. Producing some conclusions based on the text.

2.2.4. Good and poor readers

To have successful reading strategies, good readers should effectively practise some processes like relating the passages to their own experiences, summarizing

information, concluding, and asking questions about the passages (Allen, 2003; Keer &Verhaeghe, 2005).

According to Gough & Tunmer (1986), decoding and verbal capability are the most important abilities. These cognitive skills are the master elements important for reading comprehension so that a pupil is able to read unfamiliar words (phonological decoding skill) and comprehend what they have read (verbal ability).

Texas Education Agency (2002) published an article about good and poor readers, and it pointed out the following explanation about them:

2.2.4.1. Good Readers

First, good readers determine their targets before beginning their reading. They observe the structure, or organization of the passage, and usually create a mental general overview or outline of the passage to help them decide whether it is relevant to their goals.

While they read, good readers read words carefully and fast, and at the same time deal with the meanings of those words - as well as the meanings of the phrases and sentences into which the words are assembled. Good readers link the meaning of one sentence to the meaning of others. If something is unclear to them, they use their previous knowledge to try to clarify the meanings of words and even phrases. Sometimes good readers interact with the passage by making questions about its content and reflecting on its thoughts. They are skilful at using their background knowledge to predict what might happen next and to realize ideas as they meet them. Their predictions are continuously evaluated and revised as required.

Good readers are elective as they read. They pay more of their attention on the paragraphs of the passage that are closely corresponded to their reading purposes. They may skip some parts of a text because they have already understood content or because they do not believe the paragraphs are important to what they need or look for to learn form the text. When they read few pages they sometimes decide to skip the rest of the chapter because they have recently read similar one. However, they may determine to read a passage or chapter again before going on because they do not understand well the content or because the topic is interesting for them.

They also may sum up the content of a texts as they read it. They consciously decide what is important, supportive and less important.

They often do inferences and also imply their previous knowledge to provide data about elements or incidents, etc, that the writer does not provide immediately. Some of them may compose mental images, or visualize a setting, events, or characters to help them understand the text.

Good reader also check their comprehension as they read. When they observe they misunderstand what they are reading, they use different procedure to repair or fix-up their shortage of understanding; they usually rephrase, ask questions about meaning or misunderstood words, or they may outline the content of the passage.

At the end, when they complete reading, they start thinking about or reflect on what they read. They usually conclude the main points. They also go to other additional resources about the topic to understand better.

In short, good readers are mostly strategic readers. So, they use a number of comprehension strategies to elicit the information and clarify the meaning from the passages. Comprehension strategies are conscious techniques under the control of a reader who detirmine when, where and how to use them.

2.2.4.2. Poor readers

In contrast of good readers, less skilful or poor readers do not read strategically. They do not have enough metacognitive knowledge or awareness to promote, choose and apply strategies which can develop their reading of the passage. They rarely prepare before reading. They usually start reading without deciding goals. They seldom outline the best way to read a specific type of passages.

Through reading, poor readers are unable to decode, and also have obstacle in reading the words of their texts correctly. In addition, they don't read quickly and lack of fluency. They are slow readers, so they couldn't understand much of what they read, and the concern they have to give to understand the meaning of words keeps them apart from comprehending the text message.

Poor reader also suffers from insufficient of foreknowledge. They have problem matching the ideas of the text, too. They will be unfamiliar with the new words that face them, and unable to predict the meaning of vocabulary. They can not use their background knowledge to help them comprehending the text.

Poor readers are not aware of various text organization structures that aid them to understand it.

When they end reading, poor readers usually do not think about what they have read. They do not reflect upon it, either. In general, they rarely look for additional resources about a topic.

The most destructive problem is that the poor readers miss self-confidence in their capacity to read. So, they gain little amount of information and knowledge to help them in their next experiences.

2.3.The Importance of Creative Thinking

"Like E. Paul Torrance, my colleagues and I have tried to understand the nature of creativity, to assess it, and to improve instruction by teaching for creativity as well as teaching students to think creatively." (Sternberg, 2006 P:87)

Creative solutions for various problems have been associating all human beings since ancient times. They simply needed creativity unconsciously, to solve their everyday life problems. As our lives get more complexities, more attention to creative thinking skills is needed. We have more than a solutions for different problems, but we have solutions that never been generated which may be the best ones. We ought not to stop when we find just one, because the others may be more useful.

Oech (1983) agrees with this by saying "Life is ambiguous; there are many right answers—all depending on what you are looking for. But if you think there is only one right answer, then you'll stop looking as soon as you find one." So, the best solution is the target of our creative thinking. We should not put limits to our individuals' thinking with previous assumptions and only one way of thinking.

The poets, novelist and artists in the past were considered individuals who could generate new symbolic expressions or could think in different way from others which means that they were considered creative, but today we need more from creative persons and this is not enough.

According to Torrance (1972) people level of creativity is decreasing as they progress in age. It is less and less and continuously scores lower on creative thinking tests while they move through the school system. Therefore, we have to detect our creative individual in an early age to get a better chance in life which adds an important priority to this matter.

Our children soon will come into a world progressively presenting them with problems that do not have easy or unique solutions. Individuals have to be able to work independently and share other people to survive. Students' thinking is a dynamic part of all creative problem-solving processes and is important when solving the complex problems of today. The process of demanding individuals to engage in creative problem solving, either in group work or individually, can be frustrating if students are not trained well to think creatively. When individuals are given open-ended problems (problems which have more than one solution) requiring creative thinking, they usually become disappointed and struggle because they do not have formal training.

The importance of this kind of thinking is in providing different ideas or solutions to the daily situations that encounter us. This is the way to help our individuals to challenge the future problems with more confidence and strong capability towards more innovations in their future lives. It is very clear today that the world is getting bigger with new and even strange creative ideas. We can choose any field whether it is education, health, industry, internet, etc. All of them need new creative solutions to grow or to make their fields become better. Here the significant of creativity comes because we need to see things from different angles and pick the best for us.

2.3.1 Creativity
The definition of creativity varies between researchers. J. P. Guilford, a psychologist in the 1950's, as well as other scientists during that period of time, tended to define "creativity exclusively as a mental process."(Setenberg,1999 pp:313). Sternberg (2001) emphasized that creativity overlaps with intelligence, cognitive style, and personality/motivation. The mental dimension of creativity deals with problem finding,

and problem definition. Boden (1994) defined creativity as producing something that is novel or different. He also said in order for this new idea to be interesting, it needs to be intelligible. Court(1998) mentioned another definition pointing out that the capacity of human intelligence helps students to use imagination and generate original ideas and innovative solutions. Torrance (1974) defined it as the ability of a person to produce compositions, products, or thoughts related to specific tasks which are basically new or novel, known or unknown to the individuals. Or, creativity is a process, the contribution of new thoughts a various viewpoint; a new way of seeing a problem, situation or event, where the freedom of the student is the basis of expression. Lipman (2003) evaluated the creative thinking process and below are the properties of this process;

- Originality: The product being a product that hasn't been generated.
- Productivity: Creativity is a fertile pursuit. It brings a product.
- Imagination: Imagination exists at the base of creative thinking. Creative persons create new things with their imaginations.
- Independence: Dependence to something prevent creativity. Creativity needs independence.
- Experimentation: Creative persons usually test their solutions when they found them.
- Holism: Creativity generally provides a whole, complete solution.
- Expression: Creativity especially reflects itself in a person's self-definition. This is nature of individual.
- Self-transcendence: Creative individuals transcend themselves, pass beyond the temporary situation.
- Surprise: Creativity, in general, creates a weird outcomes and causes surprise. Creative people love the nature, their products make people around them in awe.
- Generativity: Creativity brings forth and provides many solutions. Creativity means multiple solution for problems ways.
- Maieuticity: Maieuticity, known as the Socrates' method, which is defining present situation and bringing new ways. It requires a different look to temporary elements.
- Inventiveness: Inventiveness is the most agreed property of creativity. Creative persons find new solutions, create a new art.

2.3.2.Creative thinking skills

Creative Thinking is a process of becoming sensitive to specific problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and identifying the difficulty, searching for solutions, making guesses or formulating hypotheses and possibly modifying and retesting them and finally communicating the results effectively to others (Torrance, 1976).

Guilford (1971) points out the importance of trait concepts in the process of creativity. According to him, traits are properties of individuals, and hence the most defensible way of discovering trait concept at present is that of factor analysis. The aptitude traits suggested by Guilford are sensitivity, redefinition, fluency, flexibility and elaboration. Guilford (as in Haefele, 1962) says that creative thinking has eight important elements:

- Sensitivity to problems (needs, seeing the unconventional)

- Fluidity (multitude of thoughts and associations)
- Flexibility (getting rid of thinking laziness and adaptive set)
- Originality (not having a general impulse)
- Dominance (dominance on the situation and having divergent associations)
- Analysis (defining, recognition)
- Synthesis (closure ability)
- Redefining

The most common elements according to Guilford's (as in Haefele, 1962) thought can be presented in four skills as below:

Originality: This refers to new ideas produced by a creative person where he or she generates unfamiliar, noncontradictory, and simultaneously acceptable responses with a tendency to provide far-reaching associations of ideas. This capability can be defined quantitatively in terms of unfamiliar yet acceptable responses when stemming in response to a specific stimulus (Torrance, 1974).

Fluency: This is the ability to produce the largest possible number of meaningful words. According to Guilford (1987), there are two factors of fluency: the verbal fluency, which is manifested in the number of utterings, and ideational fluency, which describes the degree of swiftness in providing a large number of ideas, regardless of the quality of responses. What matters here, as mentioned by Guilford, is the number of responses and ideas rather than single words (Torrance, 1974).

Flexibility: This is the capability of an individual to transfer from one group to another, thereby expressing mental flexibility as well as ease of mental position. Guilford found that there are two kinds of flexibility: spontaneous flexibility and adaptive-flexibility. Spontaneous flexibility is the ability to produce a diversified cluster of thoughts free of dormancy and inertia. Adaptive flexibility is the ability to facilitate problem-solving which becomes more obvious when the problem requires an extraordinary solution (Torrance, 1974).

Elaboration: This is the ability to add details and meanings to original solutions and thoughts (Torrance, 1974).

2.3.3. The Phases of the Creative Process

According to Csikszentmihalyi (1997) The creative process has four distinct phases. The first one is the preparation phase. It is in this phase, thinking process about the problem starts. Though the problem may be very unclear in this phase, the creative individual who is working on the problem recognizes something is wrong or it just does not right.

The next phase incubation process. During this phase, one has moved beyond the thinking process to the level where the sub-conscious has begun to make connections and the level of awareness rises. When one of these sub-conscious connections is strong enough, it shift back into the consciousness and the creative individual knows what should

be done about the situation. At this point, a eureka moment or the insight phase (illumination) has take place. In different words, the view of what is possible begins to come together.

The last phase is the elaboration phase. Through this phase, the illumination that has come to light is shaped in such a way that it can be shared and well understood by other people. It is necessary that individual recognizes the process of moving from preparation to incubation, to insight, to elaboration is cyclical process but a not a linear one that it may repeat itself many times over before the final product is generated.

2.3.4. Preconditions for creativity: The Amabile framework

Amabile (1983) provide the three preconditions for creativity suggested the conceptual foundation for the 4-Ps model. These preconditions are domain-relevant skills, creativity-relevant skills, and task motivation. Domain-relevant skills and factual information are required for performance in a given domain. The second precondition, is creativity-relevant skills, are those that make individual or team able to "be creative" by using of natural creativity or to invoke creative thinking producing processes. These skills include cognitive style, application of heuristics for the exploration of new cognitive tracks, and working style. The third precondition task motivation, includes motivational variables that define an individual or team's readiness to apply processes connected with creative thinking.

2.3.5. The 4-Ps model

As Csikszentmihalyi (2005) pointed out, creative process is not only referenced on the individual level and the person's work, but also as a phenomenon that results from interaction between many factors. According to Rhodes (1961) creativity is an interaction between four elements: (person, process, product and press). These can help more in understanding creative process.

2.3.5.1.The First P: The Creative Person

Most people believe that creative thinking is inherited and that we either possess it or do not (Guilford, 1977). Others decline to think that God has either given it to them or has not (Maritain, 1930). Research discusses that creativity exists in everybody (Gordon, 1961; Maslow, 1959) and is normally distributed (Guilford, 1977; Shallcross, 1985; Tardiff and Sternberg, 1988).

2.3.5.2. The Second P: The Creative Process

Guilford has concentrated almost exclusively on the creative process (Guilford,1967). According to Parnes (1987: p. 156), " the creative abilities can be developed by deliberate programs and methods".

2.3.5.3.The Third P: The Created Product

An analysis of creativity can also starts with the final object, by identifying the characteristics needed for products to be classified as creative (Morgan, 1923; Kant, 1923). Others consider that if people are told about their creativity abilities, are supplied processes to facilitate creative process, and are supported through a positive surrounding environment for creativity, it is rational to suppose that creative objects and services will result.

2.3.5.4. The Fourth P: Press/Place   (The Creative Environment)

Press is an expression from the field of instruction which refers to the relationship between human beings and their environment (Rhodes, 1961). "An organization's climate for creative productivity," according to Witt and Beorkrem (1989: p33), "is the organization's set of norms that communicate how the organization values and promotes creativity and innovation."

Now, we have to mention five key factors to enhance creative climate that brought by Gies (1988):

1. A secure press with minimal administrative or financial interference.
2. An organizational culture that makes it attractive and plain for individuals to discover and solve problems independently.
3. Rewards for employee performance structured to reduce the opportunity that intrinsic motivation will be contaminated.
4. Managerial readiness to take risks in the targeted zone for creativity and innovation.
5. Providing individuals with formal and informal training that enhance creativity.

2.3.6. Creativity Techniques

A number of creative techniques have been promoted to facilitate unlocking of an people's innate creativity in order to generate creative ideas. Arnold (1962) talks about creative techniques saying, "when applied conscientiously and repeatedly, will help awaken and strengthen... creative potential" (Arnold, 1962, p. 252).

In this field, there are more than 20 techniques, but we will talk about the most common ones. They are two types; analytical and intuitive.
The analytical techniques to be illustrated in this paper are:

* Progressive abstraction
* Interrogatories (5Ws/H)
* Force field analysis
*
The intuitive techniques to be illustrated in this paper are:

* Associations/images
* Wishful thinking
* Analogy/metaphor

2.3.6.1. Progressive abstraction technique (analytical)

Description of the Technique

   Geschka et al. (1973) developed the progressive abstraction technique o generates alternative problem definitions by moving from progressively higher levels of problem abstraction to a satisfactory definition is completed. Once a problem is systematically enlarged in this way, new definitions arise that can be assessed for their usefulness and feasibility. When individuals reach a right level of abstraction, possible solutions can then be more easily recognised. The main advantage of the procedure is the degree of structure provided the problem solver for systematically examining inspecting problem substructures and connections.

2.3.6.2. Interrogatories: 5Ws and the H technique (analytical)

Description of the Technique

   The who-what-where-when-why and how interrogative questions are applied in widening a student's or group's perspective of a situation or opportunity. The technique provides a plain, easy-to-remember framework for consistently gathering information that are related to identifying and providing solutions the problems. By going through a number of circles of the 5Ws/H, alternatives related to the situation/opportunity can be discovered completely. More than one round of arguing is required. In answering the questions for each round, the team recognized the importance of additional questions or subrounds.

2.3.6.3. Force field analysis technique (analytical)

Description of the Technique

  Miller (1987) developed the force field analysis technique from a concept originated. The name is derived from the technique's capability to identify forces contributing to or hindering a solution to a problem. The technique can encourage creative thinking in three ways: (1) defining direction (vision), (2) identifying strengths that can be increased, and (3) recognizing weaknesses that can be reduced. The basic function of force field analysis in idea producing is to present three various stimuli for thinking of new choices or solutions. Because the field shows a type of tug-of-war, there are three ways to move the centre line in the direction of the more desirable future.

- Strengthen an already present positive force.
- Weaken an already present negative force.
- Add a new positive force.

Therefore, the force field supplies concentration for exploring possible solutions.

2.3.6.4. Associations/images technique (intuitive)

Description of the Technique

The first intuitive approach discussed, the associations/images technique, builds on the natural inclination of people to associate. The linking or combining process is another way of widening solution area. A classic example is the Swiss hiker who was removing troublesome cockleburs from his socks and associated the barbs on the burrs with a novel way to attach things, ultimately reaching at the idea of velcro. The procedure for apply of the technique is as follows, depending on an approach used by Gordon (1961). It begins by helping the group in identifying the situation or examined it. Then the leader asks the individuals to select a solution to the situation phrased in the way they want. Now, the leader chooses the key concept that is central to the aim/wish statements. They will be asked to think of the world that is away from the world of the situation and this is chosen by the leader. The leader requests them to lay aside both problem and goal/wish developed to list associations and images that describe the remote world. The leader give directions to the group to match the list of associations and images of the remote world to the world of the problem. Here, the leader tells the associations and images and applies them in a more realistic way without weaken the innovation. The group now uses and applies attractive ideas developed.

2.3.6.5. Wishful thinking technique (intuitive)

Description of the Technique

In Particular, the wishful thinking technique is helpful for people who typically take a very analytical approach to problem-solving. by the use of fantasy, analytical individuals tend to loosen their analytical parameters to a wider set of alternatives than they might usually consider. Van Gundy (1988) developed a procedure for use of the technique in five steps. First of all is to identify a problem statement. Then, open the solution space for all possible answers. Thirdly, determine the alternatives in terms of a wish or a fantasy. After these alternatives have been generated one should change each wishful statement to a more practical one. At last, thinkers should move on to an analytical problem-solving approach to develop a creative product.

2.3.6.6. Analogy/metaphor technique (intuitive)

Description of the Technique

Generally, the development of the analogy/metaphor creativity technique is due to de Bono (1970). However, Aristotle talked about the importance of metaphor almost 2,200 years ago: "Ordinary words convey only what we know already; it is from metaphor that we can best get hold of something fresh" (Embler, 1966, p. 12). An analogy is a similarity between two things on the contrary of dissimilarity (Miller,1 987). Analogies tends to "make the familiar strange and the strange familiar." By using analogies, an individuals or groups can often find a new understanding and approach to the nature of a problem and,

thus, its resolution. Van Gundy (1988) explaining the process by originating a procedure as below:

1. Blocking all evaluations, generate a list of objects, persons, situations, or actions that are similar but does not relate to the problem, for example, a   list of situations characterizing some form of "resistance" or "reluctance.
2. Choose one of the analogies and facilitate it in details. Then, try to achieve this step without relating to the main problem.
3. Checking the items produced and changed them into a statement that applies to the problem or opportunity being analyzed.
4. Investigate the list of statements and discuss its implementations to the situation or opportunity.

   The procedure systematically produces a widened view on the issue at hand and typically leads to an expanded solutions.

2.3.7. Creative Strategies

   These creative strategies are expected to help teachers incite the creative thinking and make their individuals more creative. The following are mentioned by Horng et al. (2005) in his study ' creative teachers and creative teaching strategies.

2.3.7.1. Student-centred learning

   Teachers according to this strategy are facilitators more than lecturer, serving students with self-reflection, group discussion, role play, drama presentation and group activities. Teachers prepare questions for group discussions and presentations. Students are given a space of freedom to pick from what perspective they will study an issue. inside the class, teachers act as a partner to learners, inspirer, navigator and sharer, while students turn into from passive listeners to observers, performers and co-learners.

2.3.7.2.Use of multi-teaching aids assistance

   The three subjects analysed are good at practising multi-teaching aids to help their instructional process. They ingeniously used creative teaching aids, such as paper crusher, toy block, hammer, power-point, computer, student writing script, hammer and multimedia to increase excitement of individuals thinking, widen the viewpoints and promoted more discussion. After watching videos, individuals are given open thinking questions, like 'What would you do if you were the character?'

2.3.7.3. Class management strategies

   The subjects showed complex management, created friendly interactions and deal students with recognitions of their individualities and demands. They are such as friends to their students, talking with quiet tones and body language. When students express ideas, they would not disconnect nor give judgements directly. Instead of that they gave guidance, more open questions, or transfer their own experiences as references. Inside the

classroom, teacher's fun and kindness of teachers bridges the gap between teachers and students, providing a relaxed learning environment. (Fleith, 2000)

2.3.7.3.Connection between teaching contents and real life

Esquivel (1995) pointed out that students enjoy the lessons related to real life situations. The three subjects adopted real-life events and students' concerns, such as gender issues, fashion of identity, or the feelings of bored students. These are issues students will face at some stage. They can share their experiences with classmates, triggering responses, discussion and high-level thinking.

2.3.7.4.Open questions and encouragement of creative thinking

Teachers in their lessons have to prepare a group of clever and well designed open questions for their students that incite students' creative thinking.

2.3.8.Creative Thinking and Problem Solving process

Problem-solving thinking allows students to practise their mastery of the techniques they have learned. Many university graduates do the assigned tasks, but they are unable to solve a problem where new paths are joined (Guilford, 1950). The process of problem-solving has seven overlapping processes. While each of these processes does not work consecutively in the end- product phase, they do operate cooperatively to assist lead to a new representation of the problem. See Figure (2.1) .

Figure 2.1: Creative Thinking and Problem Solving process
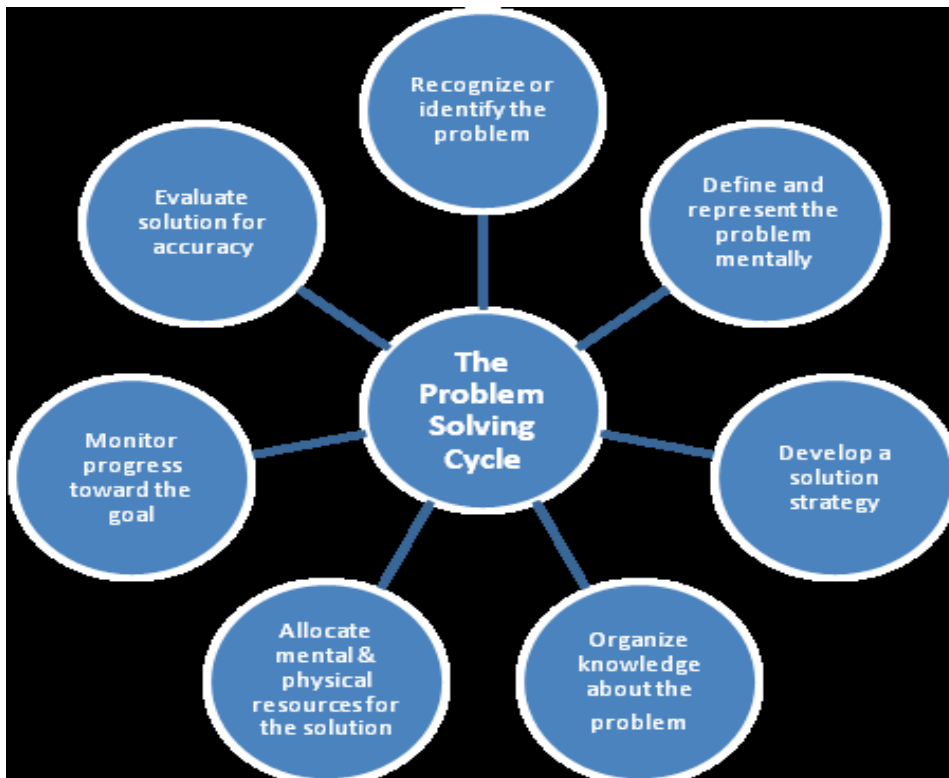
This figure is taken from (Simpson, ND)

There are two types of problem-solving, well-defined problems and ill-defined problems (Davidson and Sternberg, 2003). The first one composed from well-defined problems where the targets, the way to the solution, and obstacles to solutions are clear based on the data provided. These problems are easy to be understood, defined, and represented. The second type of problem-solving is the ill-defined problem. This type of problem doesn't have a obvious route to the solution and the solution have to be determined by the problem thinker. This type of problem is hard be easily defined and needs to be divided into a set of smaller elements. The importance of today's educational system places on creativity and how the instructional system, that is existed in our schools, affects the learning and future chances of today's students (Simpson, ND).

According to Daniel Pink (2005), long ago, the future belonged to the individual who had the capacity to operate in the well-defined problem-solving world which means, a person with an analytical thinking who could exceed a number of individuals.

Today, the logical, linear, analytical, sequential, and spreadsheet capability are still essential, but now they are not sufficient. They still important today, but they matter less. Today's world has gone beyond being able to do only the well-defined problem and has become the world of the ill-defined problem. The future now belongs to inventors, pattern recognizers, artistic, empathic reasoning, and big-picture thinkers.

Mr Pink elaborates on the account of comprehensive facts students have gained from our school systems. However, the students need to go beyond being a store-house of facts and be able to put ideas together in a creative style. In other words, to live in this competitive global world, a world that is changing faster with each passing day, they need to see the whold picture.

2.3.9.Divergent and Convergent Thinking.

Guilford (in Haefele, 1962) points out that there are two types of thinking. Convergent thinking: using logic and knowledge to lower the amount of possible products, divergent thinking: foreseeing more than one solutions to a problem, having original and rare ideas. Creativity is seen as an intelligent process that produces multiple solutions to problems by original and unique ways (divergent) rather than preventing solutions by intelligence and logic (convergent). He also adds that the two thinking method being together would be useful, but said that creative thinking needs more of a divergent thinking.

2.3.10.Creative Thinking And Other Ways Of Thinking

2.3.10.1. Creative and Uncreative Thinking

Thinking that is traditional, away from creativity is called uncreative or conventional thinking. Uncreative thinking is a way of thinking that doesn't pass beyond what has been provided. That is the thinking method called traditional education and unfavourable by many. This thinking process is doing what everyone is doing. In this thinking method, the individual sees what others see and acts like other people. Creative

thinking depends on the lack of information and needs for a different point of view. So creative thinking is different from uncreative thinking or traditional thinking. Creative thinking sees what everybody's else sees, but thinks i different way (Bacanl et al, 2010).

2.3.10.2. Critical thinking

Creative thinking has to examine the solutions generated before it in order to be novel. As it is, creative thinking comes after critical thinking. Also, the solution that has resulted from the creative thinker has to be assessed with critical thinking. That is the major property that divided creative thinking from imaginative thinking. Critical thinking paves the way for creative thinking in defining the situation. It assists in "keeping its feet on the ground" through evaluating the final product. That's to say creative thinking occurs before critical thinking and then returns to it. (Bacanl et al, 2010)

According to Lipman (2003) point of view, critical thinking and creative thinking have one thinking in general: cognition. Both of them are cognition-heavy thinking methods. The table below points out the differences between critical thinking and creative thinking (Fisher, 2004)

Critical	Creative
Analytic	Productive
Convex	Divergent
Vertical	Horizontal
Possibility	Probability
Judgement	Suspective judgement
Hypothesis testing	Hypothesis creating
Objective	Subjective
Answer	Any answer
Left brain	Right brain
Close-ended	Open-ended
Linear	Evocative (connective)
Reason	Inference (speculation)
Logic	Instinct
Yes but	Yes and

2.3.10.3.Caring Thinking

Caring thinking usually provides the rules that thinking have to obey. It transact with the thoughtful rigor, rules and principles needed for this rigor. In this manner, there is a rigor relationship among caring thinking and creative one. Creative thinking can be careless imaginative thinking. Caring thinking examines the evaluation of the solutions of creative thinking with a systematic thinking depend on the rules of critical thinking. Creative thinking is seen close to careless thinking but not caring thinking, but choices created has to be systematically examined and this is done by caring thinking.

2.3.10.4. Hopeful thinking

Creative thinking requires hope so as to go beyond solutions, break the rules. A creative thinking with no hope does not find solutions to problems. In this way, hopeful thinking is the most inclusive of thinking processes. Also, one of the characteristics of hopeful thinking, way finding, is similar to the fluidity property of creative thinking. Here, an individual that seeks many ways to the target has to be creative, or find different and untraditional ways.

2.3.10.5. Factors that inhabit creative thinking

Factors that block creative thinking are seen as the obstacles of creativity process and are classified into five groups Rıza (1999) as cited in (Bacanl et al, 2010)

- Emotional barriers: Shyness, fear befooling and being misunderstood, lack of tolerance and over self-criticism.
- Cultural barriers: Examples of cultural barriers are not valuing imagination and creativity seen as childish.
- Learned barriers: Obsessing on usefulness, possibility expectations, divine taboos are learned barriers.
- Cognitive barriers: Conventional cognition traditions are on this group.
- Loaded program barriers: Education programs inhibit creativity.

2.4. Studies and Results

2.4.1.Reading Comprehension Studies and Results

Sabatin (2011) examined the effect of lexical and morpho-syntactic knowledge on reading comprehension. The study also aims at investigating if there are significant differences between subjects' performance in reading comprehension attributed to sex and general ability in English (GAE).

The study aims to answer three questions. The first is "To what extent are the effects of lexical and grammatical knowledge on subjects' performance in reading comprehension?" The second is " What is the difference in performance in reading comprehension between male and female subjects who background knowledge on lexis and morpho-syntactic and those who do not have any knowledge?" And the third is" What is the difference between subjects' performance in reading comprehension and their general ability in English?"

The population consisted of all first-year individuals in English major at Hebron University in the first semester of the academic year 2010/2011. The sample consisted of 60 students, males and females separated into two groups, experimental and controlled ones. The study followed the experimental methodology.

First experimental group attended five lectures on lexis and syntax while the controlled group was not given any lecture. The researcher conducted a post-test for the two group of subjects. Then, experimental and controlled groups were given a post-test relates lexical and syntactic knowledge. The post-test consisted of two passages followed by twenty questions for each group.

Means, standard deviations and Pearson Product Moment Correlation were calculated by using SPSS program. The study revealed the following results:

1. There are statistically significant differences in performance in reading comprehension between subjects who have lexical and grammatical knowledge and those who do not have any knowledge.

2. There are no statistically significant differences in performance in reading comprehension between male and female subjects who have lexical and grammatical knowledge and those who do not have any knowledge.

3. Subjects' GAE revealed that there are statistically significant differences in performance in reading comprehension between subject who have lexical and grammatical knowledge and those who do not have any knowledge.

In the light of the results of the study, the researcher recommends that English language teachers should pay more attention to lexical and grammatical knowledge as the two main factors in improving reading comprehension.

Kirizmi (2010) study aims at determining the relationship between use of reading comprehension strategies and daily free reading time among 4th and 5th-grade primary education students. He used descriptive method to identify the situation. The study was conducted on 4th and 5th-grade primary education pupils to examine the relationship between their use of reading comprehension strategies and daily time spent in free reading. The research was conducted on 402 (208 females, 195 males) individuals at 4th and 5th grades attending 7 primary education schools in Izmir/Buca. 51.7% of the students were girls and 48.3% were boys. The sample was choosing through stratified sampling selection. A "Reading Comprehension Strategies Scale" (RCSS) was applied to determine subjects' level of use of reading strategies. The daily time that students alotted to free reading (stated in minutes as unit of time) was attained through the personal information form of the scale. As a result of the analyses, using reading comprehension strategies was found to be a important indicator on daily time spent reading. The results showed that the that there is a significant positive relationship at a medium level between use of reading strategies and every day time in reading. This pointed out that the daily time spent reading is a significant predictor of use of reading strategies.

Koka (2010) research aimed at determining the effects of the language curricula designed in compliance with the principles of representational systems on the students' reading comprehension achievement and their attitudes towards learning English with regard to brain dominance and reading strategies. The population consisted of 40 individuals (14 female, 26 male) from a university preparatory students in the Spring Term of the 2008-2009 Academic Year. The research presented in this study was depended on a randomized pretest-posttest control group design. In this study, a reading strategies scale, a brain dominance inventory, an attitude scale and a vocabulary and reading comprehension test were conducted. In the analysis of the data, arithmetic mean, standard deviation,

percentage, t-test and for the reading comprehension achievement test, KR 20 reliability test were administered and analysed. The significance level of alpha was.05. As a result of the research findings, there was no statistically significant difference between reading comprehension achievements, however, there was statistically significant difference between the attitudes of the experimental and the control group individuals in favour of the experimental group both in left and right brain dominant students. The data of the research were collected by a multiple choice Reading Achievement Test for English, a Five-Point Likert-Type Attitude Survey, and Reading Strategies Scales, and the Brain Dominance Inventory.

Lesaux & Kieffer (2010) investigated the nature of difficulties of reading comprehension among early teenagers language minority (LM) learners and English speakers in city schools. Sixth-grade individuals (399 LM learners, 182 native English speakers) were checked for difficulties, using a standardized measure of reading comprehension. Of these, 262 students (201 LM learners, 61 native English speakers) with a score at or below the 35th percentile were given measures of oral language and reading. More LM learners than their partners were classified as struggling readers (60% vs. 40%, respectively). However, latent class analysis reflects that the two groups were evenly distributed among three skill profiles of struggling readers. In spite of the fact that relative differences in word reading accuracy and fluency, each profile was characterized by low vocabulary knowledge. Most of struggling readers had developed basic fluency skills. The results demonstrate the need for basic schools to understand why students are having comprehension difficulties and to adjust instruction to meet their particular needs, given the wide differences in the struggling reader population. besides, they indicated that treating LM learners as a separate unit on the basis of their status as second-language readers may not be appropriate.

Many studies have showed that girls have higher average ability than boys in second language learning in researches using children. Payne and Lynn (2010) also examined this issue by investigating potential gender differences in second language ability in university individuals matched for the age of acquisition of the second language, the number of given classes, working memory capacity, and English reading comprehension. The findings reflects that females were significantly better than males in second language reading comprehension when they were examined in all these variables, suggesting that females had a stronger module for second language acquisition than the males did. The sample consisted of 73 native English speaking university students (32 males, and 41 females) who were actively learning Spanish as a second language. All individuals were between 18–22 years old and had little experience with Spanish (had taken classes in Spanish as a second language and/or had got knowledge in Spanish through abroad experiences).

Nikolov and Csapó (2010) in recent years, like other instructional contexts in the European Union and different parts of the world, early foreign language teaching have become widely overspread in Hungary. This article investigate the relationship between Hungarian learners' reading skills in English as a foreign language (L2) and in their first language (L1) Hungarian. Data from two quantitative cross-sectional studies were analyzed to explore how they interact together. In the first study, individuals were representative samples of Hungarian students (n > 4700 in Grade 6) and (n > 3900 in Grade 8); (12 and 14 years old, respectively). Moreover, their proficiency in reading comprehension in L2, their reading skills were also examined in the mother tongue. The

other study included a representative sample of eighth grade students (n = 247) in a specific county of Hungary (Baranya). This research tapped into learners' proficiency in English reading comprehension and in Hungarian, but besides reading, listening comprehension and writing skills were also examined in both languages. The two studies found proof for the interdependence hypothesis: a significant relationship was found between L1 and L2 performances. However, relationships between L2 skills confirmed to be stronger than those between L1 and L2 as well as between L1 skills.

Morgan et al (2008) conducted a pretest-posttest control group design with random selection to examine if early reading failure reduces children's motivation to practice reading. First, they checked whether 60 first-grade children would report substantially various levels of interest in reading as a function of individuals relative success or failure in learning to read. Second, they investigate whether rising the word reading capability of 15 at-risk pupils would lead to gains in their motivation to read. Multivariate analyses of variance showed significant differences in both motivation and reading practice between skilled and unskilled individuals. However, strengthening at-risk children's word reading capability did not give evidence of a causal relationship between early reading failure and decreased motivation to engage in reading tasks. Instead, hierarchical regression analyses pointed out a covarying relationship between early reading failure, poor motivation, and avoidance of reading.

Phakiti (2003) study aimed at investigating the relationship of test-takers' use of cognitive and metacognitive strategies to the EFL reading test achievement. The study conducted both quantitative and qualitative data analyses. The 384 individuals involved in a primary English course at a Thai university took an 85-item, multiple-choice reading comprehension achievement test, followed by a cognitive-metacognitive questionnaire on how they thought while finishing the exam. Eight of these students (4 highly successful and 4 unsuccessful) were chosen to retrospective interviews. Firstly, the findings suggested that the use of cognitive and metacognitive strategies had a positive relationship to the reading test performance, and secondly, highly successful test-takers reported significantly higher metacognitive strategy use than the moderately successful test-takers who in turn reported higher use of these strategies than the unsuccessful test-takers.

Miller-Jones (1984) applied her study on one hundred eighteen children from 5 to 7 years old. They were tested fall and spring on language comprehension, logico-perceptual development, and reading acquisition. Multiple regression, path analysis, and cross-lagged time panel analysis were used to define the direction of causal effects on reading acquisition. While language was strongly related to reading comprehension performance, logico-perceptual development was causally related to success in reading acquisition. The researcher used tree diagrams for linguistic analysis, those language structures related to reading were studied and further correlated with the logico-perceptual subtest. At this level of analysis similarities between the problem-solving strategies needed for the logico-perceptual tasks and comprehension of specific language structures emerged. It was concluded that the strategies explaines in the logico-perceptual tasks may play a basic role in the appropriate explanation of specific language structures. Mastery of these structures correlated positively with success in reading acquisition.

2.4.2.Creative Thinking Studies and Results

Karpova et al (2011) study aimed at understanding how individuals' creative thinking could be developed at a university classroom. Creative thinking tasks that can be incorporated in various classroom courses were prepared. The tasks consisted of four learning modules: (a) what is creativity, (b) recognizing and identifying opportunities, (c) generating ideas, and (d) evaluating creative ideas. Four teachers administered the exercises in five courses. To assess effectiveness of the training course, figural format of the Torrance Test of Creative Thinking (TTCT) was used to evaluate individuals creative thinking skills before and after completion of the training. Creative thinking was significantly higher for the whole group of trainees after finishing of the creative thinking exercises than before the course of training. Individual class analyses reflects that individuals in four of the five involved classes had significantly higher creativity after completion of the training. It was concluded that by incorporating creative thinking tasks into existing courses, teachers can help individuals to develop creative thinking -a critical aspect of their professional progress.

Munteanu et al (2010) study aimed at investigating what effects have over students' creative potential and its components (divergent thinking, convergent thinking and creative attitudes) being a frequent member of a creative group. An experimental 20 individuals group was put together, all of them in humanistic stream. The research had two steps: A study for identifying effects of creative group at university level, and identifying a habit-forming experiment for direct stimulation of creative thinking potential for individuals. The experiment continued for one year, with weekly meetings to train them. It included three steps: pretest, creative group training and posttest. In the stage of pretest and posttest were applied 12 standardized tests, both verbal and non-verbal, measuring creative ability, as so to determine the effects caused by the creative thinking training. Trained group developed significantly individuals' creativity ability in general and by components. An experimental group was created, with a number of 20 individuals (14 females and 6 males), who are between 19-20 years old. In the same way, 20 person control group was tested and re-tested after a year with the same instruments. To diagnose divergent thinking the researchers used a complex package of 12 famous instruments:
Guilford, Torrance, Wallach & Kogan, Flanagan. For convergent thinking, Raven's Standard Progressive Matrices and Verbal IQ Test for Holban and for non-intellectual dimension, Creative Attitudes Test adapted after Jaspard were used. These tests were administrated to all subjects in same manner, in pretest and posttest.

The research of Abu Jabeen (2007) aimed at knowing the extent to which creative thinking skills (fluency, flexibility, originality) are existing in the first three classes' Arabic Language textbooks of the Palestinian basic education and their acquisition by students. The textbooks were firstly analyzed using two analysis cards: one for the reading texts, and the other for the questions, exercises, and activities of the three textbooks. Both validity and reliability of the cards were measured following the usual research methods.

In addition, a test was prepared to measure these skills acquisition by the students. It was applied on the third basic education class students after assuring its validity and reliability. It was implemented on a stratified random sample of: (males and females), (town, camp, and village); and include (367) students distributed over (8) schools: (4) of which were males', and (4) were females'. These schools also comprised the three population categories: (2) town schools, (1) camp and (1) village schools.

Some classroom instructional situations of the (Human and Light) unit were taped-recorded in (8) schools include the pre-mentioned categories in order to observe the extent to which teachers implement the creative thinking skills during their explanations and discussions.

The results showed a very low level of these skills in both the analyzed textbooks and in the field test. The sentences that include: direct creative thought in the three textbooks were at (1.3%); those with indirect creative thought were at (6.7%), and with a (4%) ration for both types of sentences.

In regard to the availability of skills (fluency, flexibility, originality) in the three textbooks questions, the common ration was (4.1%): (3.7%) for fluency, (0.4%) for originality, and zero for flexibility. For their availability in the three textbooks exercises, the common ration was (1.6%): (0.2%) for fluency, and (1.4%) for flexibility. For their availability in the three textbooks activities, the common ration was (15.5%): (7.5%) for fluency, and (8%) for flexibility.

In regard to the acquisition of the skills, the test results showed that all of them are not acquired by the students. The least skills to observe was originality with a calculated mean of (0.47) and a theoretical mean of (4.5); followed by flexibility with a calculated mean of (3.69) and a theoretical mean of (6); then fluency with a calculated mean of (6.99) and a theoretical mean of (7.5).

Results also showed a statistical significant difference in fluency between male and female students in favour of males. It also showed a statistical significant difference in terms of population categories in favour of camps students.

Al Mahri (2005) study aimed at investigating the effectiveness of CoRt programme and its interaction with achievement in increasing creative thinking abilities (fluency, flexibility and originality) among 10th-grade female individuals in Oman. The study sample consisted of 69 subjects from Hail Al Awamer Female General Education School (10-12) in Muscat area (the experimental group was 35, the control group was 34). Both verbal and figural Torrance Test of Creative Thinking forms A & B were applied as pre-tests and post-tests along with Raven Standard Progressive Matrices which was used to check the equality of the two groups on general intelligence level. Two way ANCOVA was used for each of the three skills and the total creative capability as dependent variables. The findings showed that there were statically significant differences in fluency, flexibility and total creative ability in favour of the experimental group. The interaction of the programme with the achievement was also significant but in the total score only.

Kim & William (1995) aimed at studying the relationship of creativity measures to school achievement and to preferred learning and thinking style in a sample of Korean High School individuals for 92 male and 101 female Korean 11th graders. Results showed that creative thinking skills as measured by the Torrance Tests of Creativity reflected little relationship to school performance.

A study was conducted by Rhonda (1992) aimed at testing creative thinking styles of Native American pupils. The research was to examine the existence of creative thinking as a consistent trait. Seventy-nine Cherokee pupils in grades 4 and 6, and thirty-eight fourth graders (19 males and 19 females) were examined. Forty-one sixth graders (27 males and 14 females) were examined, too. All individuals lived on nearby tribal-held land

and lived in areas controlled by Cherokee traditions and culture. Torrance Tests for Creative Thinking were used, Figural Form A, to measure originality, fluency, flexibility, and elaboration. The findings showed a higher originality score between Cherokee students.

Rabinsky 1980 investigated creativity across cultures, the United States and the occupied Palestinian territories . She examined the possible varieties among individuals in grades 9, 10, 11, and 12 on four measures of creativity. Particularly, there were two main questions of interest. The first was "are there differences amongst these cultures on each of the four dependent variables: fluency, flexibility, originality, and elaboration within grades?; secondly, are there differences, regardless of culture, in the four dependent variables among grades? The sample consisted of 137 subjects, 50 Palestinian individuals from the occupied territories and 87 American individuals. Torrance's Tests of Creative Thinking were applied to the sample. The findings showed that differences between the two societies were limited to the variables and grade levels. Palestinian students from the occupied territories obtained higher in fluency and flexibility in grades 9, 10, and 12, but not 11. However, no significant differences were found between the grades regardless of culture. The significance of grade level was clear in fluency, flexibility, and elaboration, but not for originality. Total test scores from grades 10 and 11 were higher when compared to grades 9 and 12.

Mar'i (1971) investigated the influences of cultural differences and sex differences in creative thinking skills. Two samples of eighth-grade students were chosen for this research, the firs is from modern American culture and the other from the Arab rural occupied territories (Palestine). The study used both forms Verbal B and Figural B of the Torrance Tests of Creative Thinking. His investigation showed significant differences in favour of male individuals in all measures of creativity, although male students showed greater variability in performance when compared to females. According to American sample, no significant gender differences were found, excluding fluency and originality on one situation only, and this was in favour of girls. Generally, the performance of American students was better than the performance of students in Palestine and the former pointed out greater student differences than the latter. Mar'i demonstrated that in a contemporary society, individuality is enhanced and needed while in traditional societies, it is less encouraged and may be punished.

Torrance and Aliotti (1970) tested gender differences in both forms of the Torrance Tests of Creative Thinking. The sample of this study consisted of 59 females and 59 males and represented a large population of fifth grade students. The individuals were examined in both batteries of the Torrance tests, figural and verbal forms. Both batteries were administered one week apart. Answers were scored for fluency, flexibility, originality, and elaboration. They concluded that females excelled over males in all of the verbal tests in both forms A and B, at rather high levels of confidence. On the figural form, males excelled over females in flexibility and originality, but females surpassed males in elaboration.

Torrance and Aliotti (1969) examined a sample of 10- year-old rural Wisconsin pupils and results indicated that girls exceeded on all the verbal and figural elaboration tests, whereas boys were better than girls in figural originality and flexibility. Torrance and Aliotti explained these scores as resulting from socio-cultural encouragement for males to

be original and divergent with non-verbal concepts and relatively more social pressures on females in order to develop skills that required verbal reinforcement.

Mearig (1967) conducted a comparison between males and females in accelerated seventh and eighth-grade students in Massena, New York, and Skye, an island in the Inner Hebrides off the western coast of Scotland. The individuals from Skye, were bilingual, speaking both languages Caelic and English. Mearig was driven by assuming that sex varieties in creative behaviours are akin to culturally defined sex roles and values such as greater initial reinforcement for language activities for males and this may lead to their initial superiority over males on fluency measures of creativity. However, the researcher speculated that with maturation, males will gain fluency and by the eleventh or twelfth grade, these differences will disappear.

Raina (1966) study aimed at investigating creative development in Delhi, India to find out the sociocultural that affect creative thinking development. He pointed out few differences between males and females in the first and second grades but obtained rather significant differences among boys and girls on the two verbal and figural creative tests from the third grade to the sixth. males in Ajmer and Delhi excelled females in the verbal test of creative thinking after the second grade. Raina linked this result to differential treatment of boys and girls, and the identification of kids with sex roles of their societies.

Cicirelli (1965) conducted an investigation of hypotheses treating firstly, interaction between creative thinking and IQ as they affect achievement. Secondly, IQ thresholds where creativity starts to influence achievement and where IQ itself has no further influence, the study consisted of 609 6th-grade students (IQ range 70-162). To collect the data, the study used a factorial design with 8 levels of IQ (CTMM) and also 3 levels of creativity (Minnesota Tests of Creative Thinking). However, Measures of achievement were the Gates Basic Reading Tests and the California Tests of Arithmetic and Language. Twelve combinations of creative thinking and achievement measures were used for separate analyses of variance. At the 0.05 level, results generally suggested additivity and linearity instead of interaction and thresholds. The correlation between creativity and achievement was lower than some earlier studies suggested and varied with the measures used.

In a study conducted by Torrance (1963), information on three non-verbal and six verbal tasks for examining originality were gathered from six cultures: the US (black and white pupils are classified as two cultures), Western Australia, Western Samoa, Germany, and India. Each culture, data were gained from about 1,000 individuals in grades one through six. Torrance consider the creative thinking tasks did not favour one society over another. However, comparison of countries in terms of creativity development showed differences in the developmental curve of one culture from another pointing out period of growth and slump. In addition, the results reflected that in the United States' sample, which constituted a wider range of creative thinking, there seemed to be a time of growth from the first to the third grade; with a slump in the fourth grade, then followed by another period of growth in the fifth and sixth grades. In Germany, a slump started to appear in the second and third grades. Then it was followed by growth in the fourth and fifth grades. In Western Samoa, growth was progressive, but the average of progress was slow from the second to the third grade. The periods of slow growth in pupils' creative development might pay attention to cultural and social pressure.

2.5 Comments on the Previous Studies

The researcher reviewed the related literature and previous studies to the creative thinking and FL reading comprehension which helped him to understand the nature of those two variables much better, and have a clearer idea about them. Studies that were reviewed gave the researcher more data about the relationship of creative thinking and reading comprehension with some variables such as gender, age, academic stream, place of residence, achievement, methods of teaching and special programmes. Most studies used Torrance test of creative thinking to measure creative thinking skills, but they used different texts and exams to measure reading comprehension.

Some studies showed significant effects of independent variables on them, however, other studies showed no significant effects on them. All of that gave the researcher the chance to widen his familiarity about this study and helped him to choose the best instruments to be used in it. The findings of the previous studies helped the researcher to deal with the results of this study. Moreover, the researcher reviewed the methodologies used in writing those studies, variables, analysis and all chapters to get more knowledge and experience to write his own.

 This study is similar to other study in some variables such as place of residence and gender, however , few studies targeted refugee camps. It also differs from others in adding general ability in English as an independent variable, as well as, it used two types of texts (literary and scientific) to measure reading comprehension skill. Unlike other studies, Torrance test of creative thinking was modified to be appropriate for the purpose of this study and four items of seven were used to investigate this skill.

The review of the literature showed that there were no studies took place in Palestine that deal with relationship between creative thinking skills and reading comprehension. However, few studies investigated those two variables together with different variables and procedure from this one.

2.6 Summary

In this chapter, the researcher presented the relevant studies and the related literature to reading comprehension and creative thinking skills. It provides a theoretical background of the main concepts, objectives, procedures and results of the previous studies.

Chapter Three

Methodology

3.1. Introduction

This chapter presents the design of the study, population, sample and the instruments used to collect data. It also includes statistical analysis used for testing the hypotheses and answering the questions of the study.

3.2. Method of the Study

This study used the descriptive method of research writing of a correlational type which investigated two dependent variables (creative thinking and reading comprehension test scores) and four independent variables (gender, place of residence and general ability in English).

3.3. Population of the Study

This study targeted all tenth grade students in the Southern Hebron Directorate of Education who were enrolled in the second semester of the academic year (2011/2012). The population included all 10th grade male and female students of public schools.

The number of public schools which have 10th grade was fourty six, twenty six for boys and twenty five for girls. Thirteen of them were co-educational, and only one private school.

The total number of the population was (3355) students who study the same English language textbooks for the same period of time, which was ten years.

Table (3.1) Distribution of population by gender, number, area.

Gender ⟋ Area	Male	Female	Total	Percent
City	909	1063	1972	58.8%
Village	500	682	1182	35.21%
Refugee Camp	83	118	201	5.99%
Total	1492	1863	3355	100%

3.4. Sample of the Study

The research sample was a cluster one. It depended on a random selection to choose two classes (male and female) from each area of the population, which were (a rural, urban and refugee camp). A complete cluster was chosen in each school to conduct this study. All male school names of rural areas were written on pieces of papers, then the researcher drew one piece of the box. The same procedure was done for male schools of rural areas, then the same procedure was repeated with other schools of different areas.

As a result of this process, six schools were selected: three for males and three for females as shown below:

1. Boys' schools were Ithna Basic School for boys, Al-Fawar Martyr School and Al Birj Secondary School.
2. Girls school were Ishbilia Secondary School for Girls, Al- Fawar Basic School and Deir Samit Secondary School.

The distribution of the sample by numbers, gender, schools and areas is shown in (Table 3.2).

Table (3.2) Sample distribution by numbers, gender, schools and areas.

Area	School Names	Number of students	Male	Female	Percent
City	Ithna Basic School for Boys	33	X		16.58%
	Ishbilia Secondary School for Girls	40		X	20.1%
Village	Al Birj Secondary School for Boys.	31	X		15.57%
	Deir Samit Secondary School for Girls.	39		X	19.59%
Refugee Camp	Al-Fawar Martyr School for Boys.	23	X		11.55%
	Al- Fawar Basic School for Girls.	33		X	16.58%
Total		199	3	3	100%

Besides, the sample of the study was distributed according to students' general ability in English into two groups, high and low. As shown in (Table 3.3).

Table (3.3) Sample distribution by gender and general ability.

Gender \ Ability	Male	Female	Total	Percent
High	53	52	105	52.7%
Low	34	60	94	47.3%
Total	87	112	199	100%

3.5. Instrumentation

In order to achieve the objectives of this study, the researcher used different instruments to collect data and answer the research questions. These were the following:

1. A reading comprehension test of English as a foreign language.

The reading comprehension test was divided into two texts (A and B), the first was a scientific text and the other was a literary one. The literary passage was taken from old 9th grade English book "Petra" while the scientific passage was taken from the 10th grade Omani English book. The two tests contained the most agreed standard types of questions based on the related literature and also depended on reviewing a big number of TOFEL tests where the most common are:

- Understanding the meaning, vocabulary and sentences
- Understanding the meaning of paragraphs.
- Differentiate between minor and major points.
- Summarizing.
- Making conclusions.
- Reasoning from incomplete data to infer missing information
- Understanding the structure of a text in terms of how the parts relate to each other
- Explain the writer's purpose of writing the text, (Karlin, 1971; Potts, 1976; Quandt, 1977)

Juries agreed that the two tests are suitable to the students and they were not above the students' level. The two reading passages were unseen by students. Students answered the two texts questions in one class time which is forty minutes. They answered the scientific text in twenty minutes and papers were collected from students then the literary text were answered with the same procedure.

The test format consisted of 10 multiple choice questions with four option (a, b, c, and d) for each text, where each question was given one point which meant the highest degree was ten and the lowest was zero.

2.Torrance Test of Creative Thinking (TTCT).

TTCT has two equivalent forms of figural and verbal tests, form A and form B for each. The figural TTCT has three picture-based exercises which assess five mental characteristics: fluency, resistance to premature closure, elaboration, abstractness of titles and originality, and it is also suitable to all levels from kindergarten through adult. However, the verbal TTCT included seven items that students should answer in words. The seven items are   asking, guessing causes, guessing consequences, product improvement, unusual uses, just suppose, and unusual questions. All these items measure three mental creative skills: fluency, flexibility and originality.

The verbal standardized Torrance Test of Creative Thinking was taken from Al-Shanty (1983) which measures three skills (fluency, flexibility and originality). However, only four items from the seven has been chosen for the purpose of this study. several studies such as (Richardson & Crichlow, 1995; Kim & William, 1995; Abu Hilal and Al Ttahan, 2002; Al Mahri, 2005) have applied the same method. Each of the four items has a picture with a brief explanation to clarify to the students what to do after looking at the pictures or reading the questions to generate responses as much as possible.

3. A special form to document students' average in English for the last three years (8th, 9th and 10th grades).

3.6. Validity of the Tests

To ensure reading comprehension test content validity, it was submitted to five English language supervisors and four expert teachers who have been teaching English for a long time. They were asked to evaluate the two texts in order to fulfil their purposes including appropriateness of level and suitability of the semantic, syntax and structure, appropriateness of level of the questions in term of variety, number and matching the research objectives. Jury's opinions, suggested modifications, recommendations or any suggestions were highly appreciated and taken into consideration, during the meeting that joined the supervisors, teachers and the researcher. Minor changes took place such as changing written numbers with numeral numbers in the texts, and changing the way of asking some questions. Finally, the texts and the tests were agreed, upon.

The creative thinking test was also checked to assure content validity. The researcher adapted the standardized TTCT by Al Shanty (1983). However, the standardized copy of the test was submitted to a jury of five university teachers specialized in creative thinking and education to decide whether it is valid to be applied in this study, taking into account that the Jordanian environment is similar to the Palestinian one. They were also asked to write any suggestions or modifications on the test. Minor changes also took place such as changing the word (الصفيح) to (العلب المعدنية) in TTCT because it is better understood by the students. Finally, they all recommended using it in this study since it is widely used around the world.

3.7. Reliability of the Tests

To ensure reliability of the tests, two methods were used. The first was using Cronbach Alpha to calculate the internal reliability of the two reading tests: the extent to which the items within each test correlate with each other. It was found that Alpha value in reading comprehension literary text was (0.78); and (0.72). in the scientific texts.

The second method was using test\ re-test procedure. (30) subjects from the maintained population sat for the two tests twice. Three weeks was the period between the two tests. Correlation coefficient for the test\re-test was found (0.83) for the literary text, and (0.81) for the scientific text. This pilot study also aimed to achieve the following goals:

1. To ensure that the two texts of the reading tests were suitable for the level of the subjects.

2. To shed light on the written instructions to see whether they were clear or not.

3. To have a clear idea about time needed for the tests.

4. To identify any problem and to indicate any needed modifications.

According to the Torrance creative test, it is a standardized one and highly reliable test all over the world, and hundreds of studies have used it. The test was taken from Al-Shanty (1983) study which investigated the validity and reliability of the Torrance Tests of creative thinking: the Arabic version of its verbal form A and its figurative form A, as adapted to the Jordanian environment. However, this study checked the reliability of the three creative thinking skills (fluency, flexibility and originality). Test\ re-test procedure was applied on (30) subjects from the maintained population sat for the two tests twice. Three weeks was the period between the two tests. Correlation coefficient for the test\re-test was calculated. It was found (0.83) for fluency; (0.78) for flexibility and (0.72) for originality. These results are supported by international studies results whom Torrance conducted over the years which vary between (0.71- 0.93) (as cited in Al-Shanty, 1982).

3.8. Administration of the Tests

After making sure that the instruments are valid and reliable, the researcher administrated them to the target group. The tests were printed, adequately filled and packed in envelopes for each group of chosen clusters. Each envelope had enough copies of the two reading comprehension tests, creative thinking skills, a form to collect students achievement for the last three years. Instructions of implementing reading comprehension and creative thinking tests were attached for teachers who tested the students. Test conditions for both exams were taken into consideration in the instructions that included enough seats, extra pens, good light and avoiding noise. These envelopes were distributed to schools and the researcher provided his own mobile number to the schools' administrations and teachers for any help or questions.

The two English reading comprehension texts were given to the same class by an English language teacher under a supervision of school administration. After students had received the papers of the test A, instructions were given by the teacher in their mother

tongue. Here are the main points and the full instruction form that is attached in (appendix 1.1).

1. Asking students to write their names and school name.
2. Time allotted for the two texts is one class time; forty minutes, where the teacher distributed test A (scientific text)and read the instructions in two minutes and gave (18) minutes for students to answer the ten multiple choice questions. Then he collected the papers and did the same with text B (literary text) .
3. Any questions by students were answered before the beginning of the exam.
4. Teachers were not allowed to read the text to students except words that are not clear or not seen.

According to TTCT, an introductory paragraph were attached before the instructions to point out the importance of creative thinking skills. Arabic language teacher (mother tongue) was used to administrate the four items of the TTCT. The researcher followed the instruction of implementing the TTCT suggested in Al-Shanty (1983). The following are the main points and the full form of instruction were attached in (1.2).

1. Each question of the TTCT was given to students in a separate paper. And it was also read to students, and explained by the teacher before they started answering.
2. Questions and noise were not allowed in order to offer a comfortable environment which helped thinking quietly and to avoid cut the flow of ideas by removing all distracters that could cause that.
3. Each paper which has one question was given eight minutes to be collected, then the teacher did the same with the other three questions.

3.9. Scoring the Tests

Reading comprehension tests were first scored by the researcher and every correct answer were given one point. However, creative thinking test had three skills needed to be scored in each question (fluency, flexibility and originality). At first, the researcher corrected fluency by giving each written idea one point. Secondly, and to score flexibility the number of shifting between ideas were counted and each category was given one point. An Excel sheet were designed to add new column to each new idea. Then, all similar thoughts were put under that idea beside the students name to count the number of shifting for each students and give him a mark for flexibility. According to originality, it was given zero to responses that were more than 9% of all ideas; one point was given to responses that were more than 6%; two points to answers that are more 2%; the highest degrees were three for responses that were below two 2%. The sum of these three skills after scoring a student's four questions, is the overall creative thinking mark for him.

3.10. Variables of the Study

3.10.1. Dependent variables:

   a. Level of creative thinking skills (fluency, flexibility and originality).

   b. Foreign language reading comprehension skill test scores.

3.10.2.Independent variables:

   a. Gender

   b. Place of residence (rural, urban and camp).

   c. General ability in English in 8th, 9th and 10th (high, or low).

3.11. Statistical Analysis

When the data were gathered, the statistical package for social science (SPSS) programme was used to analyze the data, whereas the researcher used frequencies, percentages means, standard deviations, as well as Pearson correlation coefficient. However, to investigate the variables of gender and general ability in English, t-Test for independent sample was used. ANOVA (One Way Analysis of Variance) was used for place of residence.

3.12.Summary

This chapter presented the methodology and procedures of the study. It showed all necessary information about dependant and independent variables, population and sample of the study. A detailed description of the instruments and their reliability and validity were also provided. Administration of the tests and data analysis were also included.

Chapter Four

Results of the Study

4.1 Introduction

This chapter presents the results of the study that aim at answering the research questions.

4.2 Results and Analysis

Question number (1): to investigate the first hypothesis derived from the question which is there are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of creative thinking skills test scores of 10th grade students attributed to gender, independent sample test, means, standard deviations were calculated as shown in Table (4.1).

Table 4.1: Mean scores and standard deviations on the creative thinking skills test scores by gender.

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Fluency	male	87	31.49	15.36	1.64
	female	112	30.89	10.43	.98
Flexibility	male	87	21.50	10.39	1.11
	female	112	20.44	7.77	.73
Originality	male	87	2.87	2.71	.29
	female	112	2.90	2.67	.25
TTCT	male	87	55.98	26.98	2.89
	female	112	54.15	19.36	1.82

We can notice from (Table 4.1) that the males' means results (M=55.98, S.D.= 26.98) show that they obtained higher mean in the creative thinking tests than that of the females' (M=54.15, S.D=19.36). And when checking differences between males and females, no statistically significant differences were found, (fluency, flexibility or originality) nor with CCTC. These are respectively (α=0.74, 0.41, 0.94, 0.57) while t-value are (t=0.32, 0.82, 0.07, 0.55). See (Table 4.2).

Table 4.2: Independent samples test. T-values for gender effect on creative thinking skills test scores.

CT skills	Group	N	M	S.D.	D.F.	t-value	Sig.
Fluency	Male	87	31.49	15.36		.32	.74
	Female	112	30.89	10.43	197		
Flexibility	Male	87	21.50	10.39		.82	.41
	Female	112	20.44	7.77			
Originality	Male	87	2.87	2.71		.07	.94
	Female	112	2.90	2.67			
TTCT	Male	87	55.98	26.98		.55	.57
	Female	112	54.15	19.36			

Question number (2): To what extent are the students' creative thinking test scores are affected by place of residence (city, village or camp)?

Table (4.3) shows means, standard deviations on creative thinking test scores by place of residence.

Table 4.3: Means, standard deviations on creative thinking test scores by place of residence

	N	Mean	Std. Deviation	Std. Error
Village	70	47.21	23.57	2.81
City	73	63.97	22.77	2.66
Camp	56	52.87	18.24	2.43
Total	199	54.95	22.96	1.62

To check whether differences are significant or not, One Way Analysis of Variance (ANOVA) was used as appears in (Table 4.4).

Table 4.4: One Way Analysis of Variance for place of residence on the students' creative thinking test scores

	Sum of Squares	D.F	Mean Square	F	Sig.
Between Groups	10372.737	2	5186.369	10.812	.001
Within Groups	94021.856	196	479.703		
Total	104394.593	198			

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The results show that (F) value is (10.812) which is significant at (α≤0.005). taking in consideration LSD post hoc test which shows that differences were significant between city and village in addition to city and camp. See (Table 4.5). And by going back to Table (4.3) we notice that means of the city is higher than village or camp which means the result was in favour of city.

Table 4.5: LSD Post Hoc by place of residence

(I) place	(J) place	Mean Difference (I-J)	Std. Error	Sig.
Village	city	-16.75832*	3.66390	.000
	camp	-5.66071	3.92671	.151
City	village	16.75832*	3.66390	.000
	camp	11.09760*	3.89068	.005
Camp	village	5.66071	3.92671	.151
	city	-11.09760*	3.89068	.005

* The mean difference is significant at the 0.05 level.

Question number (3): To what extent are the students' creative thinking test scores are affected by students' general abilities in the English language?

Table (4.6) shows means, standard deviations for both high and low general ability in English language and its effect on creative thinking test scores.

Table 4.6: Means, standard deviation and T-values for general ability effect on the students' creative thinking test scores.

Type	Group	N	M	S.D.	D.F.	t-value	Sig.
General ability	Low	94	48.12	20.88	197	4.12	0.001
	High	105	61.06	23.10			

The students' mean score of students in low general ability is lower than the student of high general ability (M=48.12, S.D.=20.88, M=61.06, S.D.=23.1) respectively. As seen above, there are statistical differences attributed to general ability in English in favour of students of high general ability where Sig. is (α=0.001) so the null hypothesis is rejected based on the previous result.

Question number (4): To what extent are the students' reading comprehension test scores affected by gender?

The hypothesis derived from this question is there are no statistical significant differences at the level of α ≤ 0.05 in mean differences of FL reading comprehension test scores of 10th grade students attributed to gender. To investigate this hypothesis, independent sample test, means, standard deviations were calculated using SPSS. See (Tables 4.7) and (Table 4.8).

Table 4.7: Mean scores and standard deviations of the reading comprehension test by gender for both literary and scientific texts.

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Literary	Male	87	4.48	2.31	.24
	female	112	5	2.48	.23
Scientific	male	87	5.97	2.15	.23
	female	112	5.45	1.91	.18

Table (4.7) shows that the males' means results (M= 5.97, S.D.=2.15) shows they obtained higher mean in the scientific text than that of the females' (M=5.45, S.D=1.91). However, the females' mean result (M=5, S.D.=2.48) shows the females obtained higher mean in literary text than the males mean score (M=4,48, S.D.= 2.48). Table (4.8) below shows the t-test values.

Table:4.8: Independent samples test. T-values for gender effect on the students' reading comprehension test scores.

Type	Group	N	M	S.D.	D.F.	t-value	Sig.
Literary	Male	87	4.48	2.31	197	1.51	0.135
	Female	112	5	2.48			
Scientific	Male	87	5.97	2.15		1.807	0.072
	Female	112	5.45	1.91			
R.C.	Male	87	5.229	1.843		0.008	0.993
	Female	112	5.227	1.848			

As seen above there are no statistical differences attributed to gender in the literary text, scientific one or in reading comprehension in general, where Sig. are (0.135, 0.072, 0.993) respectively, so the null hypothesis is accepted based on the previous result.

Question (5): To what extent are the students' reading comprehension test scores affected by place of residence (city, village or camp)?

The hypothesis derived from this question is: there are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of foreign FL reading comprehension test scores of 10th grade students attributed to place of residence.

Table (4.9) shows means and standard deviations on reading comprehension test scores by place of resident.

Table 4.9: Means, standard deviations on reading comprehension test scores by place of resident.

Place	N	Mean	Std. Deviation
Village	70	4.65	1.92
City	73	5.97	1.68
Camp	56	4.96	1.61
Total	199	5.22	1.84

As shown in Table (4.10) below, One-Way Analysis of Variance (ANOVA) between groups revealed significant differences between students in these areas on reading comprehension. (P=0.001). Scheffe and LSD post hoc tests were processed and the result was in favour of city which is the highest mean. See (Table 4.11)

Table 4.10: One Way Analysis of Variance for place of residence on the students' reading comprehension test scores.

	Sum of Squares	D.f.	Mean Square	F	Sig.
Between Groups	67.928	2	33.964	11.023	.001
Within Groups	603.919	196	3.081		
Total	671.847	198			

Table 4.11: LSD Test by place of residence

	(I) place	(J) place	Mean Difference (I-J)	Std. Error	Sig.
LSD	Village	city	-1.32231*	.29364	.000
		camp	-.30714	.31470	.330
	City	village	1.32231*	.29364	.000
		camp	1.01517*	.31182	.001
	Camp	village	.30714	.31470	.330
		city	-1.01517*	.31182	.001

* The mean difference is significant at the 0.05 level.

Results on Table (4.11) show that the differences are significant between city and village in addition to city and camp. However, differences between village and camp are not significant. Going back to table (4.9) we found that means of city is higher than the means of village and camp. That is to say, the significant differences are in favour of city over village and camp.

Question number (6): To what extent are the students' reading comprehension test scores are affected by students' general abilities in the English language?

Table (4.12) shows means, standard deviations for both high and low general ability in English language to check the hypothesis derived from this question: there are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of FL reading

comprehension test scores of 10th grade students attributed to students' general abilities in English language.

Table 4.12: Means, standard deviation and T-values for general ability effect on the students' reading comprehension test scores.

Type	Group	N	M	S.D.	D.F.	t-value	Sig.
General ability	Low	94	4.62	1.64	197	4.56	0.001
	High	105	5.76	1.85			

As seen above in Table (4.12), low general ability mean (M=4.62, S.D.=1.64) was lower than high general ability (M=5.76, S.D=1.85). And when checking differences, statistically significant differences between high and low general ability were found (α=0.001) in favour of high general ability.

Question (7): To what extent do creative thinking skills test scores correlate with reading comprehension test scores?

Tables (4.13) and Table (4.14) below show the means and standard deviations for each of the dependant variables of the study, i.e. the literary and scientific reading comprehension and critical thinking skills test scores.

Table 4.13: Means, scores and standard deviations on the two reading comprehension tests (literary and scientific).

Variables		Cases	Scores	Means	S.D.	Min	Max
Reading comprehension	Literary	199	10	4.77	2.42	0*	10*
	Scientific		10	5.68	2.04	0*	10*
Average of M. & S.D.			10	5.22	2.23	0	10

As seen in Table (4.1), the students' mean score in the scientific test surpassed that of literary test (5.68, 4.77), respectively.

Table 4.14: Means, scores and standard deviations on the creative thinking skills.

Variables		Cases	Means	S.D.	Min	Max
Creative thinking skills	Fluency	199	31.15	12.79	1	72
	Flexibility		20.9	9.0	1	53
	Originality		2.88	2.68	0	11
Total M. & S.D.			54.95	24.48	1	132

As seen, the highest score obtained in the overall average of TTCT is 132, and the lowest is 1 with (54.94) mean and (24.48) standard deviation. However, the highest score in fluency is 72 and the lowest is 1; the highest in flexibility is 53 and the lowest is 1; the highest in originality is 11 and the lowest is 0.

Table (4.15) and Table (4.16) below show Pearson correlation coefficient between the students' scores in literary tests of reading comprehension and creative thinking tests, Pearson correlation coefficient between the students' scores in scientific test of reading comprehension and creative thinking and the correlation coefficient between reading comprehension and creative thinking.

Table 4.15: Pearson correlation coefficient between creative thinking test scores, literary and scientific tests scores of reading comprehension.

Variables	Literary text	Scientific text	Creative thinking
Creative thinking Pearson correlation	0.39*	0.18	1.00

*Correlation is significant at 0.05 level

Table 4.16: Pearson correlation coefficient between creative thinking test scores & reading comprehension test scores.

Variables	Reading comprehension*	Creative thinking
R.C & C.T test scores Pearson correlation coefficient	1.00	0.36
	0.36	1.00
Sig. (2-tailed)	0.05	0.05

* Reading comprehension is the average of literary and scientific test scores.

Pearson correlation coefficient between the students' scores in literary tests of reading comprehension and creative thinking tests is (0.39). However, Pearson correlation coefficient between the students' scores in scientific test of reading comprehension and creative thinking is (0.18). and the correlation coefficient between reading comprehension and creative thinking is (0.36). All the above values are statistically considered significant at the level of ($\alpha \leq 0.05$) which is less than ($\alpha \leq 0.05$). This means that there are a significant correlation between the two types of reading texts scores and creative thinking test scores because the correlation coefficient is (0.36). This value indicates that the correlation between tests scores is positive.

To understand better the relationship between creative thinking and reading comprehension, the three aspects of creative thinking namely, fluency, flexibility and originality are also statistically analysed. See (table 4.17).

Table 4.17:   Pearson correlation coefficient between creative thinking skills (fluency, flexibility, originality) test scores & reading comprehension test scores.

	Fluency	R.C.	Flexibility	Originality
Fluency Pearson Correlation	1	.350[**]	.909[**]	.522[**]
R.C Pearson Correlation	.350[**]	1	.360[**]	.219[**]
Flexibility Pearson Correlation	.909[**]	.360[**]	1	.613[**]
Originality Pearson Correlation	.522[**]	.219[**]	.613[**]	1

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

As shown in Table (4.17) above, the correlation between reading comprehension and flexibility is the highest one, then comes fluency where (R=0.36, 35) respectively. The strongest correlation between creative thinking skills is between fluency and flexibility (R=0.909)

4.3 Summary

This chapter presented the results of the study which tried to investigate the hypotheses of the study. After completing testing the hypotheses SPSS programme, the researcher found out the following results; there is a positive correlation between creative thinking skills test scores and reading comprehension test scores. There is no effect on the literary text, scientific one or in reading comprehension in general due to gender. It does not affect creative thinking skills, either; reading comprehension and creative thinking test scores are affected by the place of residence and the differences were in favour of city, and also both of them are affected positively by the general ability in English language. The results gave an idea about individuals' abilities in reading comprehension and creative thinking skills. More details are given in chapter five .

Chapter Five

Discussion, Conclusions and Recommendations

5.1 Introduction

This chapter discusses the results of the study which aimed at revealing the relationship between FL reading comprehension and creative thinking skills among 10th grade students in Southern Hebron Directorate. It also discusses the effects of the independent variables (gender, place of residence and general ability in English) on the dependent variables (reading comprehension and creative thinking test scores), so this chapter highlights the results of the study and discusses them.

Recommendations derived from the results of the study and other studies will be presented after the discussion. Moreover, suggestions for further studies are mentioned at the end of this chapter, too.

5.2.Discussion

Question number (1): To what extent are the students' creative thinking test scores affected by gender?

The hypothesis derived from this question is that there are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of creative thinking skills test scores of 10th grade students attributed to gender. When checking the results in table (4.2), we found no statistical differences between male and female students and that is because they both are from the same population and Palestinian areas do not have a big difference in the level of teaching or in thinking approaches. In addition to that, Palestinian areas have an exceptional situation which is under occupation by Israel which in reality put both males and females in opposing of the same challenges. They share their parents, families and community the refusal of occupation and they express themselves inside schools or they protest out. They also may participate in funeral of martyrs or receiving Palestinian prisoners where they feel the same expressions and have the same attitudes which make a common culture and awareness of their hopes and rights to liberate. Israeli aggressions do not differentiate between males or females and they both share their lives with these

difficulties. They sometimes imitate while playing the role of Palestinian fighters against injustice. This makes the result of this study different from many of international studies that say the differences are in favour of girls. However, Torrance test of creativity is not a gender-based test where thinking is distributes normally between people, and thinking is not a process that belongs to one gender over another because both of them use the process of thinking, and try to have solution to their problems.

This study result agrees with Runko et al. (2010); Berkant (2009); Abu jado (2004); Al Qudah (2001); Abu zaid (1999); Flynn (1992); Muslem (1994); Bromley (1956); Alpaugh and Birren (1977); Jaquish and Ripple (1981); Agarwal and Kumari (1982) that all showed no statistical significant differences in creative thinking attributed to gender.

Other studies showed significant differences in favour of females, like the studies of Al Shaar (1998); Matalqah (1998); Flaherty (1992); Tegano and Moran (1989). On the contrary, Khan (1992); Hawwasheen (1987); Ruth and Birren (1985) found differences in favour of males. It is important to mention that Mar'i (1976) in one study found differences in creative thinking in favour of boys in Palestine over girls, but the differences were not significant sex differences were found except in one problem only was in favour of girls, in addition to that, American students were superior to their counterparts.

Question number (2): To what extent are the students' creative thinking test scores are affected by place of residence (city, village or camp)?

According to the statistical analysis results using one way analysis of variance as shown in tables (4.3), (4.4) and (4.5), statistical significant differences are found between the three areas and they are in favour of city. This result is so logical and legitimate that is because experiences of students in cities stimulate thinking and encourage them to think and generate new ideas. They are encountering daily problems and challenges which boost their thinking and increase their sensitivity to problems which is one of creative thinking skills. As we know, cities are the centre of culture and meeting points for all residents of whole classes of society and this variety leave fingerprints on each individual's mind in his/her own way to draw different attitudes, characters, personal qualities who produce ideas and think differently. Individuals there find libraries, institutions, factories, universities, big hospitals, big shopping centres, etc, which make cities need hundreds of various jobs and technicians which in turn incite students to think more creatively to find the suitable choice for them. Even liberation or revolution movements such as Arab spring's events take place in capitals and big cities which means that people in them headed political and intellectual awareness of societies and as a result individuals become open-minded ones. In general, individuality is promoted in cities and also required in modern society, but may be punished or less encouraged in other places such as villages or camps.

This result agrees with Muslem (1994) who found significant differences in favour of cities. On the contrary, it disagrees with Flynn (1994) and Al Shaar (1998) which showed no effect of the place of residence on creative thinking. On the other hand, it disagrees with Abu Jabeen (2007) who found significant differences in favour of the Palestinian camps.

Question number (3): To what extent are the students' creative thinking test scores are affected by students' general abilities in English language?

Significant differences were obtained and these were in favour of individuals who have high general abilities, not to low ones. The explanation provided is that students of high general abilities in EFL have built better experiences and knowledge that help them to do the four English language skills in a better way than other students, which scientifically in turn build more neural links in their brains and help them to possess and develop special strategies which influence and incite positively their thinking. A number of studies (Sen and Hagtvet,1993; Zhang, 2002; Anwar et al, 2012; showed significant positive correlation among creativity and scholastic achievement, but the relation between creativity and intelligence was not significant. The result of this study agrees with Berkant (2009) who found a significant positive correlation between the students' meaningful causal thinking abilities and academic achievements.

Mark et al. (2010) stated that creativity was significantly related to public achievement but not to personal achievement. Yamamoto (1964) and Joseph (1966) found no correlation between creative thinking and achievements.

Question number (4): To what extent are the students' reading comprehension test scores affected by gender?

The hypothesis derived from this question says that there are no statistical significant differences at the level of $\alpha \leq 0.05$ in mean differences of FL reading comprehension test scores of 10th grade students attributed to gender. Going back to table (4.8), we found that Sig. is (0.99) which signifies that there are no statistical differences attributed to gender in the literary text, scientific one or in reading comprehension in general. Males and females have the same condition at public schools and both study the same English schoolbooks. Moreover, Teachers' books, which are used for planning lessons inside our classrooms, are the same. That means the same strategies and methods are used for teaching reading comprehension texts, and the students may apply the same strategies and techniques when dealing with reading comprehension texts as well as the time spent in teaching reading comprehension is equal for both genders. Another reason may be because the tests are well prepared by using the results of the pilot study and the advice of juries. They also do not focus on the differences between the two groups while they have the same social and lingual background which make them think and deal similarly with the two unseen texts. Therefore, we get results without significant statistically differences.

This result agrees with Kilani (2001) that indicated there were no significant differences between students' test scores in reading comprehension due to gender. It also agrees with Sabatin 2011, who revealed that there were no statistically significant differences in performance in reading comprehension between male and female subjects. As well as, in a study by Brantmeier (2003), the results revealed no significant differences between males and females in the written recall and multiple choice comprehension scores across passages. The result of this study is also supported by Soleimani (2012) who revealed there were no significant differences between males and females in terms of reading strategies in understanding reading passages. Hyde and linn (1988) who analyze

165 studies in their meta-analysis which provides strong evidence that the difference is so small and they argue that gender differences in verbal ability no longer exist where analysis of various types of verbal ability (e.g., vocabulary, reading comprehension, analogies) yielded no evidence of a substantial gender difference.

However, It disagrees with Pyne and Lynn (2010) where their results showed that females performed better than males in second language reading comprehension. Doolittle and Welch (1989) found gender differences for items associated with specific passages, reporting that females scored higher than males with humanities-oriented reading passages, but lower than males with science-oriented passages. Bügel and Buunk (1996) found Males scored significantly better on the multiple choice comprehension items for essays about laser thermometers, volcanoes, cars, and football players. Females achieved significantly higher scores on the comprehension tests for essays on text topics such as midwives, a sad story, and a housewife's dilemma.

Question (5): To what extent are the students' reading comprehension test scores affected by place of residence (city, village or camp)?

The results in table (4.10) show that there is a statistically significant differences in reading comprehension test scores and going back to post hock test table (4.11) we notice that these differences were in favour of city. This result is consistent with many studies because the students in cities have more influential environment that encourages students to read. For instance, learning environment is more exciting and competitive where schools also have more potentials and facilities to help students in their learning process. Resources of knowledge is easier to reach and use when they are widely spread in cities. As well as, parents' awareness of the importance of reading is greater than villages or camps which reflects on their children. When we add the modern communications and the availability of web, we notice that students in cities have more encouraging circumstances to read, while the students in villages have less motivations and may have more agricultural and farming duties which lead to less concern in reading or learning in general; meanwhile, students in camps have stressful environment which affect negatively their learning process and attitudes towards reading.

This result agrees with Lang (1999) and Hzaymah (2010) who revealed that there were differences among the students in regard to their attitudes towards reading due to the geographical environment and these differences were in favour of city residents.

Question number (6): To what extent are the students' reading comprehension test scores are affected by students' general abilities in English language?

By going back to SPSS statistical analysis using t-test, we found significant differences between the two groups (high, low) in favour of high ones. So, students with more general abilities in English language are more competent in reading comprehension and read skilfully. This result seems to be harmonious because students build their knowledge throughout the learning process over the years which helps them to gain good experience and increase the vocabulary- repertoire that is very important to the four language skills and to comprehend reading efficiently. High level students also try to

develop their own strategies to understand English texts and to maintain their level at school which affect positively their reading comprehension scores.

The result of this study agrees with Berkant (2009); Erginer (1999); Demirel et al. (2005); Tekin (1980) who found a significant positive correlation between reading comprehension and academic achievement. Laufer (1992a) confirmed a strong correlation between vocabulary and reading comprehension. Henriksen et al. (2004) assured direct relationship between vocabulary repertoire and reading comprehension scores where students with low vocabulary perform poorly in reading comprehension and pointed out that vocabulary is needed to ensure good reading comprehension. Many studies supported that vocabulary repertoire is correlated to the four skills: reading, writing, speaking and listening and it was more correlated to reading and writing more than speaking and listening (Miralpeix and Muñoz, 2018; Milton et al.,2010; Staehr, 2008).

Laufer (1992b) compared three scores: vocabulary repertoire in L2, general academic ability, and L2 reading and found that: 1. when vocabulary repertoire is fewer than 3000 word families (5000 lexical items), no amount of general ability makes the learner read well; 2. with vocabulary repertoire of 5000 word families (8000 lexical items), reading in L2 will be satisfactory whatever the general ability; 3. with vocabulary repertoire of 3000–4000 word families (about 5000–6500 lexical items), L2 reading may or may not be influenced by general ability.

Research Question (7): To what extent do creative thinking skills test scores correlate with reading comprehension test scores?

The hypothesis derived from this question says there is no statistical significant relationship at the level of α ≤ 0.05 between creative thinking skills (fluency, flexibility and originality) test scores and FL reading comprehension skill test scores. Table (4.16) presents a significant positive correlation between creative thinking test scores and reading comprehension test scores which is (0.36), and statistically considered significant at (α ≤ 0.01). This means that the above hypothesis is rejected, and we accept the alternative one because there is a relationship between the two skills; whereas, the results indicate that a good reader is a good creative thinker. However, a good book really has the power to change ones' mind because reading and writing do not come with people to this life and to do them, the brain must change. Emily Bronte spent her childhood reading everything she found in her father's library, and she had a passion for books. This was reflected in great creativity that helped her to produce her only novel "Wuthering Heights", which is one of the masterpieces of the world literature, Carter (2009). The finding of this study is supported by Just et al. (1996) main result of their study to investigate what it means to be thinking harder in the course of sentence comprehension which shows an increase in the amount of brain activation as the demand on the language processing system increased from the simplest to the most complex sentence structure. This result agrees with Kazimi (2016) when investigating the relationship between creative thinking and reading and writing. He concludes that creative thinking skills are significantly correlated with attitudes toward reading/writing, and the amount of time spent on reading/writing. Wang (2012) finds English major students who read and write not only in their mother tongue language (L1), but also in a foreign language (FL) and spent more time in reading perform better in creative test and they scored the highest over the maths, science and Chinese majors, where math major scored the least. It is agreed that learning a new language brings

"a massive learning problem" demanding flexibility and high order thinking skills (Stern, 1983; Liaw, 2007). Kilani (2001) found a positive correlation between reading comprehension and critical thinking test scores. Moreover, Kamali (2011) found that the levels of critical thinking had a significant effect on reading comprehension ability.

When checking Pearson correlation coefficient between creative thinking skills (fluency, flexibility and originality) and the two texts test scores (literary and scientific), the results show that the literary text has a stronger positive significant correlation (r = 0.39) than the scientific one (r =0.18), even though the students did better on the scientific text than on the literary one where the means of the scientific test scores (M=5.68) are higher than the literary test scores (M=4.77) (table 4.13). This result indicates that the literary passage is a stronger indicator on creative thinking skills because its correlation with creative thinking skills surpasses the scientific one. On the one hand, we can explain this result by saying that the scientific texts talk about facts where a particular content and sentences are written around a small sets of topics, provided explanations with examples and extra information which help comprehension. They are also considered as an expository texts and written systematically which allow to produce higher comprehension (Abdul Ghani, 1995). So the student did better in the scientific text when it is more specific and understood when it deals precisely with one event or phenomena using the language of science.

On the contrary, some studies found that individuals, especially children understand literary texts which is a kind of narrative text better than they do with expository ones (Wixon & Peters, 1987; Olson, 1985).

On the other hand, the correlation is stronger between the literary text and creative thinking because literature is a meeting point to all different people whether their attitudes are scientific, literary or other fields. Thus many creative scientists, engineers, doctors, etc, have sensitive sense to a kind of literature while some of them is actually a poet, novelist, writer, etc. In reality, we can not ignore that any kind of literature itself is a creative product, so it is not surprising to have a stronger correlation between the creative thinking and the literary text since there are plenty of ideas and release the readers' imaginations to produce more creative minds.

According to the results of Pearson correlation tests (table 4.17), significant and positive results are found between the three skills of creative thinking and reading comprehension: fluency (r =0.35), flexibility (r =0.36) originality (r =0.21). Accordingly, the most prominent skill is flexibility then comes fluency and finally originality. Nuttal (1996) considers that flexibility is one of the characteristics of good readers and who judge what they need to get out when they read a text. In addition to that, resilient children and adolescents are also competent readers (Jonse, 2003).

5.3 Conclusions

In light of the findings of this study which investigated the relationship between FL reading comprehension and creative thinking skills, the researcher came to a number of conclusions. First of them is that there is a relationship between reading comprehension and creative thinking skills (fluency, flexibility and originality). It is also found that the literary text is a stronger indicator on creative thinking skills than the scientific one whereas, flexibility has the strongest correlation of the three creative thinking skills with reading comprehension. Secondly, there are no differences in reading comprehension attributed to gender in Palestine. It doesn't affect creative thinking skills, either. Thirdly, the results of city resident students are better than those who live in camps or villages in both reading comprehension and creative thinking skills. Fourthly, and last, students of high level of general ability in English language are also better in both reading comprehension and creative thinking skills than their counterparts.

5.4 Recommendations

On the basis of the results, following proposals are put forward: The result related to the significant positive relationship between creative thinking and reading comprehension suggests that creative thinking activities could be incorporated with reading comprehension ones. In addition to that, English language curriculum and English teachers should focus on reading comprehension and always encourage students to develop their skills and strategies to have wider knowledge. Educators may insert activities that increase students' reading comprehension abilities and creative thinking ones. Moreover, our schools should adopt thinking-based curriculum to incorporate thinking strategies and international programmes in textbooks and methodologies of teaching and train teachers to practise and use them inside their classroom. As well as, more courses of reading comprehension and creative thinking are recommended, not only to have knowledge but also to boost their relationship together.

On the other hand, reading comprehension and creative thinking are both affected by general ability in English language and other studies showed a strong correlation between creative thinking and achievement which encourage us to say that classes and activities could be based on creative activities in other school subjects to increase students' academic success and to make better integration between them. Teachers need to know that a certain type of information or knowledge is not important in today and future's world; innovative individuals are needed today who can always obtain knowledge to face new problems and deal with them creatively.

Creative thinking should be one of the goals of instruction because the related literature and educators suggest that we can teach creative thinking skills through special courses or school curriculum's activities to increase the efficiency of the process of thinking inside classrooms, so such activities should be designed and added to the curriculum.

Students should be evaluated using TTCT, then creative students should be known to take care of them to have better chance and to push them into maximum success point they could reach, because positive change in society falls on their shoulders.

Authentic evaluation and various types of assessment should be followed to reveal creative thinking skills and gifted individuals, who have different talents, such as project-based learning.

These results also suggest that researchers, scientists, educators, designer, evaluators and counsellors may do more investigations about correlations of creativity to have more authentic results and then they can provide our school books with more authentic exercises of creativity. Further researches should cover all school classes to have a clearer view when planning future instruction, because various researches signify differences between different school stages. Replications are also needed through different stages and areas.

Teachers should ask questions or suppose problems to be solved inside classroom that encourage divergent thinking which develop students' ability in the future. As well as, teachers should respect all students' answers and acknowledge strange and unusual ones and let students feel that their answers or solutions have values in order to incite them to produce more than an answer for each problem. They should also give students the opportunity to express themselves.

Reading is a very important skill in our life, so educators and curricular designers should take care of this process from an early stage of individuals' instruction. Parents should be responsible to give a high importance to reading from an early stage of their sons and daughters' life and encourage them to read and enjoy reading.

Supported programmes on TVs, radios and other social media, campaigns should be released to increase the awareness of the importance of reading comprehension and also to encourage people to read, especially young people and school individuals. That's because reading comprehension is multifunction and has large positive effects on our lives.

5.5 Summary

In this chapter, the researcher discussed the results of the study providing explanation for all of them. Recommendations and suggestions were also presented and conclusion were derived.

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Appendices

Appendix1.1. Reading comprehension instruction for teachers.

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تعليمات الاختبار

أخي المعلم.... أختي المعلمة:

يهدف هذا الاختبار إلى قيا   س مهارة القراءة الاستيعابية Reading Comprehension لدى طلبتنا، وذلك بهدف إجراء بحث علمي, بما سيعود بالفائدة على أبنائنا إن شاء الله.   لذا أرجو التكرم بالتقيد بالتعليمات الآتية بدقة، والالتزام بها؛ حتى نتمكن من الوصول إلى نتائج سليمة- قدر الإمكان - يعتمد عليها في التطوير والتحديث. شاكرا لكم حسن تعاونكم ومقدرا لكم جهودكم:

1- يعطي الاختبار معلم اللغة الإنجليزية وتحت إشراف إدارة المدرسة، وتكون مهمة المعلم فقط قراءة كلمة غير واضحة، أو غير مقروءة بشكل جيد، ويمنع ترجمة الكلمات أو العبارات الواردة في القطعة للطلبة، بحيث يكون جميع الطلبة متساوون في ظروف هذا الاختبار.

1- إعطاء كل نموذج من النموذجين "A" و"B" في ورقة منفصلة، وقراءته وتوضيح المطلوب منه للطلبة؛ حتى يتم التأكد من أن الطلبة يسيرون في الاتجاه الصحيح، وكذلك الإجابة على استفساراتهم إذا كان لهم استفسارات قبل بدء الإجابة.

2 – تمنع الأسئلة في أثناء الإجابة منعا تاما ما عدا قراءة الكلمات غير الواضحة؛ حرصا على توفير جو هادئ ومريح يساعد على التفكير بهدوء وتروٍ، وحرصا على عدم   إرباك التلاميذ في أثناء الإجابة وذلك بإزالة كل المشتتات التي يمكن أن تؤدي إلى ذلك.

3 – قراءة التعليمات للطلبة جميعا والتأكد من أن الجميع يفهمون المطلوب بشكل واضح وسليم في مدة دقيقتين وذلك قبل بدء الإجابة.

5 – إعطاء كل قطعة مدة 18 دقيقة فقط اعتبارا من بدء الإجابة، ثم يتم جمع الأوراق من التلاميذ، مع مراعاة الالتزام الدقيق بالزمن المحدد للإجابة, وتوزيع النموذج الآخر.

6 – مراعاة ضرورة عدم إعطاء الاختبار في الحصة الأخيرة أو في الحصة التي تسبق الفسحة، ويفضل أن يتم إعطاؤه في الحصة الثانية.وإذا احتاج المعلم إلى اقتطاع جزء من وقت الطلاب لأمر ما، فيجب أن يبين لهم بأنه سيعوضهم عن هذا الوقت.

7 – بيان أهمية الاختبار للطلبة، وأن نتائجه ستعود عليهم بالنفع والفائدة، وأن هذا الاختبار ليس عليه درجات مدرسية ولا يؤثر في نتائجهم، وذلك حرصا على خلق أجواء خالية من التوتر، وهيبة الاختبار المترسبة في نفوس التلاميذ، وضمان سير تفكير الطلاب سيرا طبيعيا.

9- يتأكد المعلم من أن الطالب قد كتب اسمه ومدرسته قبل استلام الورقة منه باللغة العربية.

9 – إذا كان هناك طالب/ة في الصف لا يستطيع الكتابة لسبب طارئ، أو لعدم قدرته على الكتابة   ، يتولى المعلم مهمة الكتابة عنه، ويقوم بتسجيل إجاباته، وذلك بعد الانتهاء من الاختبار، في غرفة خاصة، ويتم الإشارة إلى ذلك.

</div>

10- مراعاة توفير أدوات الكتابة من أقلام ومساحات... لاستعمالها عند الطلب.

وأخيرا آمل من المعلمين والمعلمات أن يبذلوا كل ما في وسعهم لإنجاح هذه المهمة التي ستعود بالفائدة والنفع على طلبتنا ، راجيا تزويدنا بأية ملاحظات ترونها مناسبة، وتلحظونها في أثناء التطبيق، وستكون هذه الملاحظات محط اهتمامنا وتقديرنا.

مع تمنياتي لكم بالتوفيق والنجاح...

معد الاختبار/ واصل أبو جبين

Appendix 1.2.

Torrance Test Of Creative Thinking instruction

تعليمات الاختبار

أخي المعلم.... أختي المعلمة:

يهدف هذا الاختبار إلى قياس مدى توفر مهارات التفكير الإبداعي عند الطلبة لغايات الدراسة، وذلك بهدف تطوير مناهجنا إلى أفضل مستوى ممكن، وإضفاء السمة العصرية عليها بما سيعود بالفائدة على أبنائنا إن شاء الله.لذا أرجو التكرم بالتقيد بالتعليمات الآتية بدقة، والالتزام بها؛ حتى نتمكن من الوصول إلى نتائج سليمة ـ قدر الإمكان ـ يعتمد عليها في التطوير والتحديث. شاكرا لكم حسن تعاونكم ومقدرا لكم جهودكم:

1- إعطاء كل سؤال في ورقة منفصلة، وقراءته وتوضيح المطلوب منه للطلبة؛ حتى يتم التأكد من أن الطلبة يسيرون في الاتجاه الصحيح، وكذلك الإجابة على استفساراتهم قبل بدء الإجابة.

2 – تمنع الأسئلة في أثناء الإجابة منعا تاما ؛ حرصا على توفير جو هادئ ومريح يساعد على التفكير بهدوء وترو، وحرصا على عدم قطع أفكار التلاميذ في أثناء الإجابة، وذلك بإزالة كل المشتتات التي يمكن أن تؤدي إلى ذلك.

3 – قراءة التعليمات للطلبة جميعا والتأكد من أن الجميع يفهمون المطلوب بشكل واضح وسليم في مدة دقيقتين وذلك قبل بدء الإجابة.

5 – إعطاء كل سؤال من هذه الأسئلة مدة ثمان دقائق فقط اعتبارا من بدء الإجابة، ثم يتم جمع الأوراق من التلاميذ، مع مراعاة الالتزام الدقيق بالزمن المحدد للإجابة.

6 – مراعاة ضرورة عدم إعطاء الاختبار في الحصة الأخيرة أو في الحصة التي تسبق الفسحة، ويفضل أن يتم إعطاؤه في الحصة الثانية.وإذا احتاج المعلم إلى اقتطاع جزء من وقت الطلاب لأمر ما، فيجب أن يبين لهم بأنه سيعوضهم عن هذا الوقت.

7 – بيان أهمية الاختبار الطلبة، وأن نتائجه ستعود عليهم بالنفع والفائدة، وأن هذا الاختبار ليس عليه درجات مدرسية ولا يؤثر في نتائجهم، وذلك حرصا على خلق أجواء خالية من التوتر، وهيبة الاختبار المترسبة في نفوس التلاميذ، وضمان سير تفكير الطلاب سيرا طبيعيا.

8 – من المهم جدا في هذا الاختبار إفهام التلاميذ بأن يكتبوا كل ما لديهم من أفكار، وأقصى ما يستطيعون من إجابات، وليس الاكتفاء بإجابة صحيحة واحدة، وكلما كانت الإجابات أكثر تنوعا كانت النتائج أفضل.

9 – إذا كان هناك طالب /ة في الصف لا يستطيع الكتابة لسبب طارئ، أو لعدم قدرته على الكتابة, يتولى المعلم مهمة الكتابة عنه، و يقوم بتسجيل إجاباته كما ينطقها، وذلك بعد الانتهاء من الاختبار، في غرفة خاصة، ويتم الإشارة إلى ذلك.

10- مراعاة توفير أدوات الكتابة من أقلام ومساحات... لاستعمالها عند الطلب.

وأخيرا آمل من المعلمين والمعلمات أن يبذلوا كل ما في وسعهم لإنجاح هذه المهمة التي ستعود بالفائدة والنفع على طلبتنا ، راجيا تزويدنا بأية ملاحظات ترونها مناسبة، وتلحظونها في أثناء التطبيق، وستكون هذه الملاحظات محط اهتمامنا وتقديرنا.

مع تمنياتي لكم بالتوفيق والنجاح...

الباحث: واصل أبو جبين

1.3 Reading comprehension tests A & B.

Text A

Name_____   School_____

Read the following text then answer the questions below.

The sun is the largest star in our solar system. However, there are many other stars in our galaxy which are bigger, hotter or colder. The sun is a **<u>huge</u>** ball of gas which is 1.4 million km in diameter. The centre of the sun is 15 million C^o. The sun releases heat and light into the solar system. Explosions on the surface of the sun are called sun flares and sometimes these can stop satellite television and radios from working properly. The sun also has sunspots, which are cooler areas on the surface. Astronomers think that the sun is about 4.5 billion years old and that after another 5 billion years, it will stop burning and the solar system will be destroyed.

Jupiter is the biggest planet in our solar system. It is bigger and heavier than all other planets added together. Using the first telescope, scientists discovered that Jupiter had sixteen moons. One of the moons orbiting Jupiter is bigger than the planet Mercury. Jupiter is a huge ball of liquid surrounded with gas clouds. Nearly 350 years ago, an **<u>astronomer</u>** called Robert Hooke discovered a large red spot on Jupiter. This spot is a massive storm in Jupiter's atmosphere.

The moon goes around Earth. It is the only place that people have ever visited in space because it is nearer than the planets. From Earth, it is possible to see many holes, called **craters**, on the surface of the moon where meteors have crashed into **<u>it</u>**. The moon orbits Earth at about 3,700 km an hour and it takes the moon 27.3 days to go around Earth once. The gravity on the moon's surface is only one-sixth that of Earth. However, it is enough to make the ocean tides on Earth. When the moon is opposite an ocean, the pull is strongest and there is a low tide. When the moon is not opposite an ocean, the pull is less and the tide is high.

1. The writer of this text is mainly talking about_____.

☐ our galaxy   ☐ our solar system

☐ the moon   ☐ Jupiter

2. The word **"huge"** line 2 means:-

☐ very big   ☐ small

☐ round   ☐ flat

3. The_____of the sun can stop satellite television and radios from working

☐ sunspots   ☐ heats

☐ gas   ☐ flares

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4. When the sun stops burning, all other planets will_____.

☐ be colder ☐ continue for 5 billion years only

☐ be damaged ☐ continue as nothing happens

5. Jupiter consists of_____.

☐ liquid ☐ water

☐ liquid and gas ☐ gas

6. The planet Jupiter has_____.

☐ 1 moon ☐ 16 moons

☐ 2 moons ☐ 60 moons

7. The word **"astronomer"** line 13 means _____.

☐ a scientist of geography ☐ a scientist of geology

☐ a scientist of physics ☐ a scientist of space

8. The word **"Carters"** line 17 means _____.

☐ storms ☐ meteors

☐ orbits ☐ holes on the surface of the moon

9. The pronoun **"it"** line 17 refers to_____.

☐ the moon ☐ the Earth

☐ the hole ☐ the meteor

10. The main function of gravity on moon is to _____.

☐ make tide ☐ pull things

☐ keep the moon near the Earth ☐ to keep the moon opposite the ocean

Best wishes,

Text B

Name_____   School_____

Read the following text then answer the questions below.

When Francis Chichester announced his idea of sailing round the world alone, his friends were **horrified**. "You shouldn't do it," they all said. "A few years ago you were very ill and nearly died of cancer.You got better, took part in the first race across the Atlantic, and won! You're already famous, and you 're over 60 years old. **You** should rest!"

Francis Chichester could have retired easily that day, but he had never liked resting, and he didn't want to rest now. In 1919, when he was a young man of 18, he had left England and gone to New Zealand to find a job. He had worked as a farmer, and then dug for gold and coal, and by the time he was 26 he had earned quite a lot of money. He used this to buy a small plane.

In 1929 he had flown alone from London to Sydney. The flight had taken him 36 days, and everybody was talking about him. Two years later, he was the first man to fly **on his own** from New Zealand to Australia, and from Australia to China and Japan. But he didn't learn to sail until he was 52.

Perhaps during his journey round the world he sometimes thought, "I should have listened to my friends!" When he had been at sea for a week he was 65, and he had a special dinner in the middle of the Atlantic Ocean- on his own, of course! But the same night a storm damaged his ship. In a second storm, he broke a tooth. After that he had **toothache** all the way to Australia. In another storm the ship almost turned over, and seawater destroyed most of his food.

But Chichester kept on going until, after 223 days at sea, he returned at last to Plymouth. The people of England welcomed him as a hero.

1. The best title for the text could be_____.

☐ The Old Man of The Sea   ☐ The Old Man of The Air

☐ The Old Man of The storm   ☐ The Old Man of The Gold

2. The word **"horrified"** in line 2 means_____.

☐ happy   ☐ surprised

☐ sad   ☐ afraid

3. Chichester's friends advised him to _____.

☐ sail   ☐ be famous

☐ rest   ☐ fly

4. The pronoun **"you"** line 5 refers to_____.

☐ people ☐ Chichister

☐ friends ☐ cancer

5. The second paragraph is mainly talking about _____.

☐ people in New Zealand ☐ planes

☐ Chichister's life ☐ farmers

6. In 1929 he was famous because he had flown_____.

☐ from London to Sydney ☐ from Sydney to London

☐ from New Zealand to Australia ☐ from China to Australia

7. The expression **"on his own"** in line 13 means_____

☐ with his friends ☐ with other people

☐ fast ☐ alone

8.The first storm had_____.

☐ destroyed most of his food ☐ damaged the ship

☐ broken his tooth ☐ killed him

9. The word "toothache" line 19 means_____.

☐ removing the tooth ☐ pain in head

☐ pain in tooth ☐ keeping the tooth

10. Which of the following sentences is true:

☐ Chichister succeeded to sail round the world ☐ he died in the sea

☐ he failed to sail round the world ☐ he would like to retire

Best wishes,

1.4. Torrance Test Of Creative Thinking.

Name_____   School_____

أولا: (تخمين النتائج)

الصورة الموجودة أمامك في هذه الصفحة تعطيك الفرصة لأن تفكر وتجيب عن السؤال الآتي بعد
النظر إليها. اذكر كل النتائج التي تتوقع حدوثها للطفل الذي أمامك:
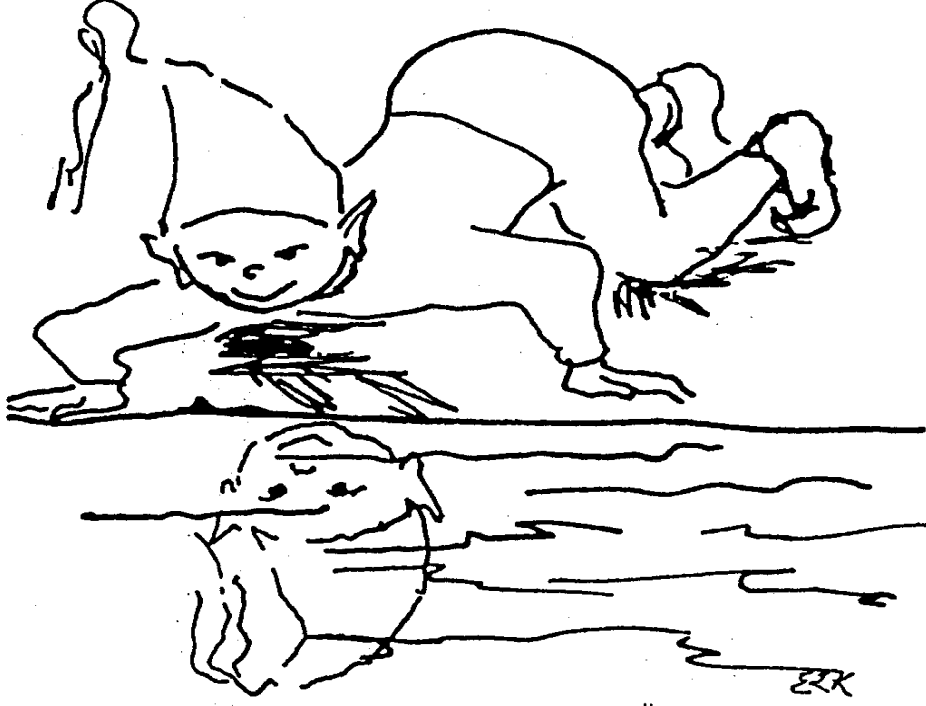
-- ◘

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ثانيا: (تحسين الإنتاج)

فيما يلي صورة لأحد ألعاب الأطفال التي يمكنك شراؤها من المحلات التجارية، وهي عبارة عن فيل محشو بالقطن، طوله 16سم ووزنه $\frac{1}{4}$ كغم أي (250 غرام) ، والمطلوب منك أن تكتب كل الوسائل التي يمكن أن تفكر فيها بحيث تصبح هذه اللعبة بعد تعديلها مصدرا لمزيد من السرور والفرح لمن يلعب بها من الأطفال، تحدث عن أكثر وسائل التعديل لهذه اللعبة غرابة، وإثارة للاهتمام ولا تهتم بتكاليف هذه التعديلات.

فكر فقط فيما يمكن أن يجعل هذه اللعبة مصدرا لمزيد من الفرح والسرور.

◘ --

◘ --

◘ --

◘ --
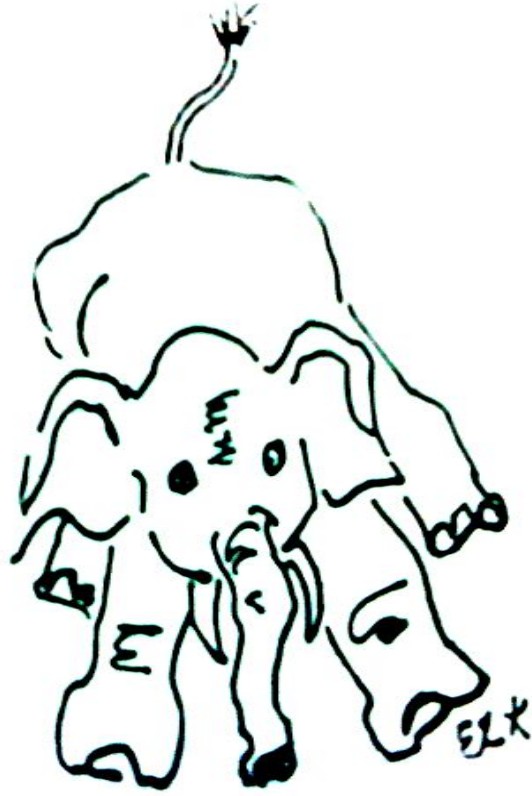
ثالثا: الاستعمالات غير الشائعة (العلب المعدنية الفارغة)

يلقي معظم الناس بالعلب المعدنية الفارغة، رغم أن لها كثيرا من الاستعمالات اللطيفة وغير الشائعة، أكتب على هذه الصفحة وعلى الصفحة التالية كل ما تستطيع أن تفكر فيه من هذه الاستعمالات اللطيفة وغير الشائعة، ولا تحدد تفكيرك بحجم معين من هذه العلب، فيمكنك أن تستخدم أي عدد من هذه العلب كما تشاء.

لا تقصر تفكيرك على الاستعمالات التي رأيتها أو سمعت عنها من قبل، وإنما فكر قدر المستطاع في الاستعمالات الجديدة الممكنة.

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رابعا: (افترض أن)

فيما يلي موقف غير ممكن الحدوث ــ موقف قد لا يحدث أبدا ــ وعليك أن تفترض أنه قد حدث بالفعل ، وسوف يعطيك هذا الافتراض الفرصة لاستخدام خيالك لتفكر في كل الأمور الأخرى المثيرة التي يمكن أن تحدث إذا تحقق هذا الموقف المثير.

افترض في خيالك أن الموقف الذي سنصفه لك فيما يأتي قد حدث ، ثم فكر في كل الأمور الأخرى التي قد تحدث بسببه ، وبمعنى آخر ما هي النتائج المترتبة على ذلك ؟! اكتب كل ما يمكنك من تخمينات.

الموقف غير الممكن : افترض أن للسحب (الغيوم) خيوطا تتدلى منها وتربطها بالأرض، ما الذي قد يحدث؟! اكتب كل أفكارك وتخميناتك في الصفحة التالية

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1.5. A form to collect Students' Achievements (GAE).

	تحصيل الطلبة في الصفوف:-			يقصد بالتحصيل معدل الفصلين الأول والثاني باستثناء الصف العاشر	الرقم
العاشر(الفصل الأول)	لتاسع	الثامن		الاسم	
					1
					2
					3
					4
					5
					6
					7
					8
					9
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					32
					33
					34

1.6 A form of creative thinking test which was sent to arbitrators

<div dir="rtl">

بسم الله الرحمن الرحيم
اختبار قياس مهارات التفكير الإبداعي

حضرة الدكتور / ....   المحترم

مركز العمل : ....

السلام عليكم ورحمة الله وبركاته، وبعد:

يقوم الباحث بإجراء دراسة بعنوان : "   العلاقة بين مهارات التفكير الإبداعي   والقراءة الاستيعابية للغة الأجنبية "الإنجليزية" لطلبة الصف العاشر في فلسطين   " لنيل درجة الماجستير من جامعة القدس. وقد اعتمدت الدراسة على أداتين للبحث هما: "   اختبار للقراءة الاستيعابية " واختبار لقياس مهارات التفكير الإبداعي " الطلاقة، والمرونة، ولأصالة " عند الطلبة.

وقد قام الباحث بإعداد اختبار القراءة الاستيعابية، و اختبار لقياس مهارات التفكير الإبداعي عند طلبة الصف العاشر ؛ الطلاقة، والمرونة، والأصالة؛ حيث تم إعداد هذا الاختبار بناء على الخطوات المبينة في مرفق التحكيم (مرفق لكم بالطي خطوات إعداد هذا الاختبار ، والأسس التي اعتمد عليها الباحث في اختيار فقراته، وتعريفا موجزا بمهارات التفكير الإبداعي قيد الدراسة) ؛ راجيا التكرم بتحكيمه ما لغايات إجراء الصدق لأدا تي البحث، علما بأن ملاحظاتكم وآراءكم ستكون موضع اهتمام الباحث وتقديره، للاسترشاد بها، والعمل في ضوئها قبل البدء بتطبيق الاختبار ، مقدرا لكم جهودكم، وشاكرا لكم حسن تعاونكم .

الباحث:واصل أبو جبين

م 2011 / 12 /3

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تعريف موجز بمهارات التفكير الإبداعي التي من المتوقع أن يقيسها الاختبار :

1 – الطلاقة: وتعني القدرة على توليد عدد كبير من الأفكار أو البدائل أو المترادفات أو المشكلات سواء اللفظية أو غير اللفظية عند الاستجابة لمثير معين " مشكلة، أو سؤال ما"، والسرعة والسهولة في توليدها. ويعتبر جيلفورد بأنها المنجم الذهبي للإبداع،   وقد تم التوصل إلى عدة أنواع للطلاقة عن طريق التحليل العاملي، وهي:

- ـالطلاقة اللفظية: وهي القدرة على إنتاج عدد كبير من الألفاظ الصحيحة.

(اكتب أكبر عدد ممكن من الكلمات التي تحتوي على الحروف الثلاثة الآتية: الهمزة ، الكاف، اللام).

- طلاقة التداعي: وهي القدرة على إنتاج أكبر عدد من الألفاظ المنتظمة في موضوع واحد.

(اكتب اكبر عدد ممكن من الكلمات التي تتضمن معنى الحرية).

- الطلاقة الفكرية: وهي القدرة على ذكر أكبر عدد من الأفكار في زمن محدد.

(اذكر أكبر عدد ممكن من العناوين المناسبة لموضوع القصة).

- الطلاقة التعبيرية: وهي القدرة على صياغة الأفكار في عبارات مفيدة، والقدرة على التفكير السريع في الكلمات المتسلسلة والملائمة للموقف في موضوع معين.

(اذكر جميع الاستخدامات الممكنة للعلب المعدنية الفارغة ، أو للأكياس البلاستيكية.....).

2 – المرونة: وهي القدرة على توليد أفكار متنوعة ليست من نوع الأفكار المتوقعة، وتوجيه أو تحويل مسار التفكير مع تغير المثير، أو متطلبات الموقف، أي درجة السهولة التي يغير بها الشخص موقفا ما، أو وجهة نظر معينة، وعدم التعصب لأفكار وأنماط ذهنية محددة سلفا وغير قابلة للتغير بحسب ما تستدعي الحاجة. ومن أشكالها:

- ـالمرونة التكيفية: وهي القدرة على تغيير الوجهة الذهنية التي ينظر من خلالها إلى حل مشكلة محددة.

(اكتب مقالا لا يحتوي على أي فعل ماض ، أو لا تستخدم فيه الضمائر المنفصلة).

- المرونة التلقائية: وهي القدرة على سرعة إنتاج أكبر عدد ممكن من الأفكار المختلفة التي ترتبط بموقف معين.

ويلاحظ هنا أن الاهتمام في المرونة ينصب على تنوع الأفكار أو الاستجابات، بينما يتركز الاهتمام بالنسبة للطلاقة على الكم دون الكيف والتنوع.

3 – الأصالة: وهي المقدرة على الإتيان بالأفكار الجديدة والنادرة، والمفيدة وغير المرتبطة بأفكار سابقة، وهي إنتاج غير المألوف وبعيد المدى. وهي أكثر الخصائص ارتباطا بالإبداع والتفكير الإبداعي، وتعني الجدة والتفرد.

خطوات إعداد الاختبار :

لقد تم إعداد هذا الاختبار وفق الاعتبارات الآتية:

1 – الاستفادة من الجانب النظري الخاص بالدراسة، وبالرجوع إلى الأدب التربوي في هذا المجال وجد الباحث كما هائلا من المقاييس المختلفة التي تقيس هذه المهار ات، ومن أشهر ها اختبارات تورانس, جلفورد, ولاش وكوجان, جيتزل وجاكسون,   وقد أفاد الباحث من دراسة هذ   ه الاختبارات، في إعداد الاختبار كي يلائم خصوصية البيئة التي سيطبق فيها الاختبار؛   وقد لاحظ الباحث أن أكثر ها استخداما وشيوعا هو اختبار تورانس للتفكير الإبداعي, حيث استخدمته آلاف الدراسات حول العالم, إما كاملا كما جاء أو بتعديل بعض فقراته, أو بانتقاء بعض الفقرات, وبناء عليه قام الباحث باختياره مع إجراء بعض التعديلات في بعض الألفاظ, واختصار وبعض الفقرات(الأولى, الخامسة), ولكنه آثر أن يكون تعديل الفقرات واختصار ها وفقا لآراء وتوجيهات المحكمين, علما بأن البحث قد اختار الصورة اللفظية أ.

2- مراعاة البيئة العربية وخصوصيتها من ناحية، وخصوصية المنطقة التي سيطبق فيها الاختبار من ناحية أخرى، ويعتمد ذلك على أمور كثيرة منها ثقافة المجتمع وعاداته وتقاليده وقيمه وطبيعته ونمط الحياة وأيديولوجياته الفكرية التي يعيشها ذلك المجتمع، وتجدر الإشارة هنا إلى أن الاتجاهات الإنسانية والبيئية تتبنى وجهة النظر القائلة باعتماد الخبرة الشخصية السابقة للفرد أساسا للحكم على نوعية نواتجه، بمعنى أن بعض مهار ات التفكير الإبداعي كالأصالة ليست صفة مطلقة، ولكنها محددة في إطار الخبرة الذاتية للفرد.(جروان،2004: 157).

3 – الاطلاع على الدراسات السابقة التي قامت في هذا المجال، والطريقة التي اعتمدتها لقياس مهارات التفكير الإبداعي.

5 – الخبرة الذاتية للباحث؛ حيث يعمل في مجال   التدريس، ويحتك مباشرة بالطلبة و بالمعلمين والمشرفين التربويين، ويشارك في كثير من الأنشطة التربوية والدورات التدريبية ، ويقوم ، ويوجه أسئلة مباشرة للطلبة تتضمن إجابتها مهارات التفكير الإبداعي، مما يساعده في   تقدير مدى ملاءمتها للطلبة.

يقترح الباحث أن الاختبار النهائي سيتكون من   أربع فقرات، يقوم الطالب بالإجابة عنها خلال حصة دراسية واحدة، مدتها (40) دقيقة، بمعدل 8 دقائق لكل فقرة،   ويقوم المعلم/المعلمة بإيضاح المقصود من السؤال؛ حيث يتم وضع تعليمات واضحة مع الاختبار وخصص لها دقيقتين للإيضاح. لذا يرجى التكرم بدراسة هذه الفقرات لرؤية مدى مناسبتها، وقدرتها على قياس ما وضعت له؛ مهارات التفكير الإبداعي: الطلاقة، والمرونة، والأصالة؛ لاختيار أقوى هذه الفقرات في السؤال الأول تحديدا ، وأكثر ها ملاءمة لهدف الباحث؛ علما بأن الباحث لم ينفرد بهذا الأمر حيث انتقت الكثير من الدراسات

العربية والأجنبية بعض الفقرات واستثنت البعض الآخ   ر وكل له تبريراته, وبعض هذه الدراسات (Ritchardson& Crichlow, 1995) حيث استخدمت نشاطا واحدا من الصورة الشكلية ب. ودراسة (Kim &Michael, 1995) حيث طبق أربعة اختبارات اثنين من الصورة اللفظية أ ومثلهما من الصورة الشكلية ب. ومن الدراسات العربية دراسة أبو هلال والطحان(2002), حيث قاما بتطبيق اختبار الدوائر من الصورة الشكلية لاختبارات تورانس.

كما ويقتنع الباحث بأن الاختبار بهذه الطريقة لا يهمل الأداء العملي بجانب الأداء اللفظي, فإذا طبق الباحث الاختبار كاملا سيحتاج على اقل تقدير ل 45 دقيقة مما سيربك العملية التعليمية ويعطل جدول الحصص المدرسية, كما وأنه سيربك التلاميذ لكثرة فقراته وبهذا لا يحصل على النتائج المرجوة, لأن الباحث يتعامل مع النشاط العقلي وهو بحاجة لبيئة مريحة للطالب كي ينتج ويبدع, كما أن المعلم قد يضطر لعدم قراءة تعليمات السؤال للطلبة وتفويت الفرقة على الطلبة للفهم السليم للسؤال, وبذلك يكون الباحث قد وقع في خطأ جسيم, بحيث لا تكون نتائج الاختبار حقيقية ولا تعكس المستوى الحقيقي لهم.

شاكرا لكم حسن تعاونكم، ومؤكدا بأن آراءكم سيكون لها الأثر الأكبر في نتائج هذه الدراسة، والله من وراء القصد.

❖ فقرات الاختبار المعد لقياس مهارات التفكير الإبداعي (الطلاقة، والأصالة، والمرونة) لتلاميذ الصف العاشر.

(ملاحظة : الاختبار الذي سيعطى للطلبة يتكون من أربعة فقرات فقط ، ومدة الإجابة عن كل فقرة 8 دقائق) ويعطى كل سؤال دقيقتين لإيضاح التعليمات بشكل دقيق من قبل المعلم وبناء عليه يقوم المحكم باختيار أفضل سؤال من أسئلة الصورة الأولى لأنها الوحيدة التي تتكون من ثلاثة أسئلة لصورة واحدة فقط والسؤال الخامس والسادس يختار المحكم منهما الأكثر ملاءمة من وجهة نظره, مع التأكد من أن جميع الألفاظ الواردة مناسبة للبيئة الفلسطينية ومفهومة للتلاميذ, بحيث يمكنكم إضافة الاقتراحات في المكان المخصص لذلك بعد كل سؤال وفى نهاية الاختبار.

أولا: الرجاء اختيار سؤال واحد من الثلاثة الآتية وذلك بوضع إشارة في المربع:

الصورة الموجودة أمامك في هذه الصفحة تعطيك الفرصة لأن تفكر وتجيب عن الأسئلة الآتية بعد النظر إليها.

س1 أكتب كل الأسئلة التي يمكنك أن تفكر فيها عن الصورة الموجودة في هذه الصفحة لكي تعرف ☐ **ما الذي يجري, ولا تسأل أسئلة يمكن أن يجاب عنها بمجرد النظر للصورة. (توجيه الأسئلة)**

س2 اذكر كل الأسباب التي أدت إلى حدوث الموقف الذي تراه في الصورة أمامك. (تخمين ☐ **الأسباب)**

س3 اذكر كل النتائج التي تتوقع حدوثها للطفل الذي أمامك. (تخمين النتائج)

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▪ ---
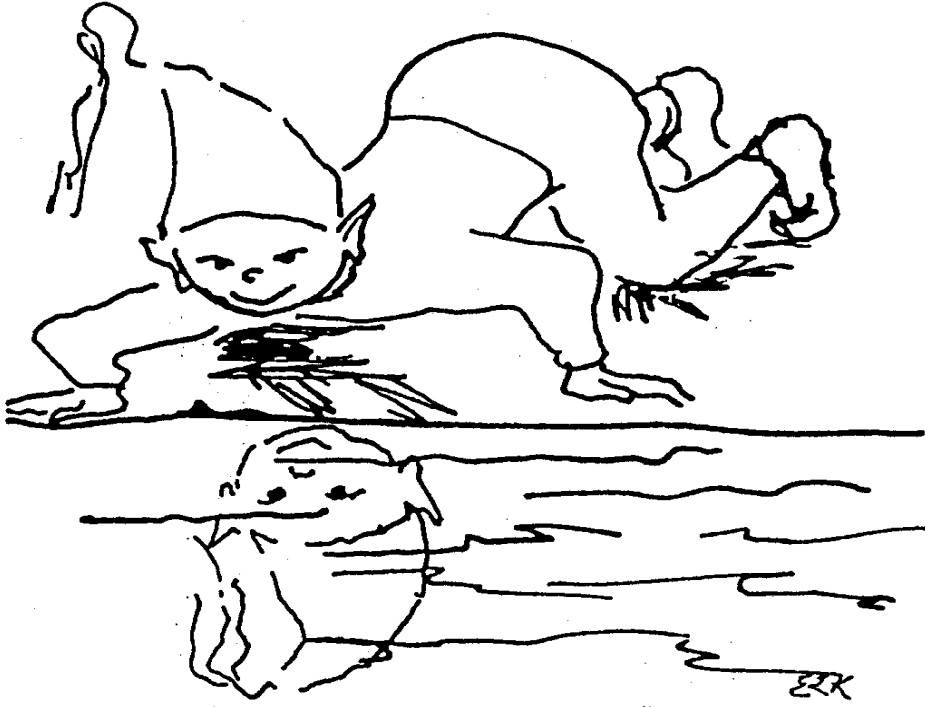
أي اقتراحات تودون إضافتها على السؤال

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ثانيا: (تحسين الإنتاج)

فيما يلي صورة لأحد ألعاب الأطفال التي يمكنك شراؤها من المحلات التجارية, وهي عبارة عن فيل محشو بالقطن, طوله 16سم ووزنه 1/4كغ أي (250 غرام) , والمطلوب منك أن تكتب كل الوسائل التي يمكن أن تفكر فيها بحيث تصبح هذه اللعبة مصدرا لمزيد من السرور والفرح لمن يلعب بها من الأطفال, تحدث عن أكثر وسائل التعديل لهذه اللعبة غرابة, وإثارة للاهتمام ولا تهتم بتكاليف هذه التعديلات.

فكر فقط فيما يمكن أن يجعل هذه اللعبة مصدرا لمزيد من الفرح والسرور.

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- ◘ --
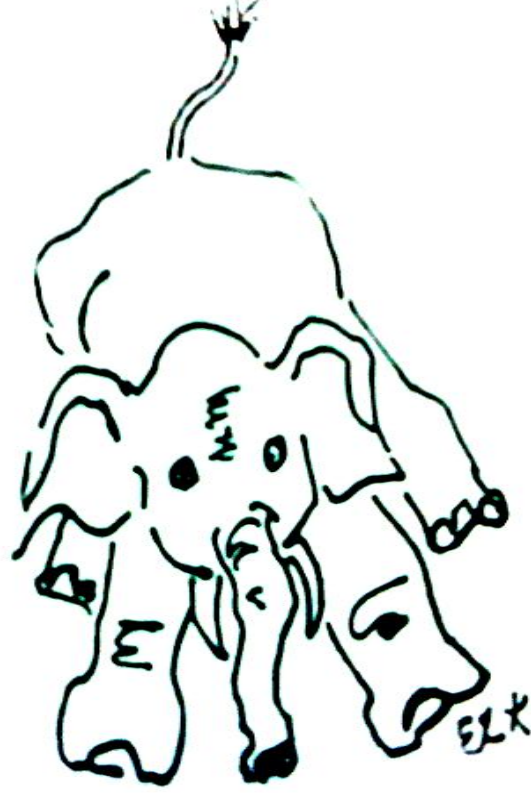
أي اقتراحات تودون إضافتها على السؤال

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- ◘ --
- ◘ --

الرجاء اختيار أحد السؤالين الآتيين للاستعمالات والأسئلة غير الشائعة بوضع إشارة في المربع

ثالثا: الاستعمالات غير الشائعة (العلب المعدنية)

يلقي معظم الناس بالعلب المعدنية الفارغة, رغم أن لها كثيرا من الاستعمالات اللطيفة وغير الشائعة, أكتب على هذه الصفحة وعلى الصفحة التالية كل ما تستطيع أن تفكر فيه من هذه الاستعمالات اللطيفة وغير الشائعة, ولا تحدد تفكيرك بحجم معين من هذه العلب, فيمكنك أن تستخدم أي عدد من هذه العلب كما تشاء.

لا تقصر تفكيرك على الاستعمالات التي رأيتها أو سمعت عنها من قبل, وإنما فكر قدر المستطاع في الاستعمالات الجديدة الممكنة.

فيها الناس.

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أي اقتراحات تودون إضافتها على السؤال

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الأسئلة غير الشائعة:

في هذا النشاط عليك أن تفكر في أكبر عدد ممكن من الأسئلة التي يمكنك أن تسألها عن العلب المعدنية بشرط أن تؤدي هذه الأسئلة إلى إجابات عديدة ومتنوعة, وأن تثير لدى الأشخاص الآخرين الاهتمام وحب الاستطلاع فيما يخص هذه العلب.

حاول أن تجعل أسئلتك تدور حول بعض النواحي الخاصة في هذه العلب والتي لا يفكر فيها الناس.

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أي اقتراحات تودون إضافتها على السؤال

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◘ --

رابعا: (افترض أن)

فيما يلي موقف غير ممكن الحدوث ــ موقف قد لا يحدث أبدا ــ وعليك أن تفترض أنه قد حدث بالفعل ، وسوف يعطيك هذا الافتراض الفرصة لاستخدام خيالك لتفكر في كل الأمور الأخرى المثيرة التي يمكن أن تحدث إذا تحقق هذا الموقف المثير.

افترض في خيالك أن الموقف الذي سنصفه لك فيما يأتي قد حدث ، ثم فكر في كل الأمور الأخرى التي قد تحدث بسببه ، وبمعنى آخر ما هي النتائج المترتبة على ذلك ؟! اكتب كل ما يمكنك من تخمينات .

الموقف غير الممكن : افترض أن للسحب (الغيوم) خيوطا تتدلى منها وتربطها بالأرض, ما الذي قد يحدث؟! اكتب كل أفكارك وتخميناتك في الصفحة التالية.

أي اقتراحات تودون إضافتها على السؤال

- ◪ --
- ◪ --
- ◪ --

* أيِّة ملاحظات واقتراحات أو تعديلات تودون إضافتها:

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تعليمات الاختبار

أخي المعلم .... أختي المعلمة:

يهدف هذا الاختبار إلى قياس مدى توفر مهارات التفكير الإبداعي عند الطلبة   لغايات الدراسة، وذلك بهدف تطوير مناهجنا إلى أفضل مستوى ممكن، وإضفاء السمة العصرية عليها بما سيعود بالفائدة على أبنائنا إن شاء الله.لذا أرجو التكرم بالتقيد بالتعليمات الآتية بدقة، والالتزام بها؛ حتى نتمكن من الوصول إلى نتائج سليمة ـ قدر الإمكان ـ يعتمد عليها في التطوير والتحديث. شاكرا لكم حسن تعاونكم ومقدرا لكم جهودكم:

1- إعطاء كل سؤال في ورقة منفصلة، وقراءته وتوضيح المطلوب منه للطلبة؛ حتى يتم التأكد من أن الطلبة يسيرون في الاتجاه الصحيح، وكذلك الإجابة على استفساراتهم قبل بدء الإجابة.

2 – تمنع الأسئلة في أثناء الإجابة منعا تاما ؛ حرصا على توفير جو   هادئ ومريح يساعد على التفكير بهدوء وترو، وحرصا على عدم قطع أفكار التلاميذ في أثناء الإجابة، وذلك بإزالة كل المشتتات التي يمكن أن تؤدي إلى ذلك.

3 – قراءة التعليمات للطلبة جميعا والتأكد من أن الجميع يفهمون المطلوب بشكل واضح وسليم في مدة دقيقتين وذلك قبل بدء الإجابة.

5 – إعطاء كل سؤال من هذه الأسئلة مدة   ثمان دقائق فقط اعتبارا من بدء الإجابة، ثم يتم جمع الأوراق من التلاميذ، مع مراعاة الالتزام الدقيق بالزمن المحدد للإجابة.

6 – مراعاة ضرورة عدم إعطاء الاختبار في الحصة الأخيرة أو في الحصة التي تسبق الفسحة، ويفضل أن يتم إعطاؤه في الحصة الثانية.وإذا احتاج المعلم إلى اقتطاع جزء من وقت الطلاب لأمر ما، فيجب أن يبين لهم بأنه سيعوضهم عن هذا الوقت.

7 – بيان أهمية الاختبار الطلبة، وأن نتائجه ستعود عليهم بالنفع والفائدة، وأن هذا الاختبار ليس عليه درجات مدرسية ولا يؤثر في نتائجهم، وذلك حرصا على خلق أجواء خالية من التوتر، وهيبة الاختبار المترسبة في نفوس التلاميذ، وضمان سير تفكير الطلاب سيرا طبيعيا.

8 – من المهم جدا في هذا الاختبار إفهام التلاميذ بأن يكتبوا كل ما لديهم من أفكار، وأقصى ما يستطيعون من إجابات، وليس الاكتفاء بإجابة صحيحة واحدة، وكلما كانت الإجابات أكثر   تنوعا كانت النتائج أفضل .

9 – إذا كان هناك طالب /ة في الصف لا يستطيع الكتابة لسبب طارئ،   أو لعدم قدرته على الكتابة, يِتولى المعلم مهمة الكتابة عنه، و يِقوم بتسجيل إجاباته كما ينطقها، وذلك بعد الانتهاء من الاختبار، في غرفة خاصة، ويتم الإشارة إلى ذلك.

10- مراعاة توفير أدوات الكتابة من أقلام ومساحات ... لاستعمالها عند الطلب.

وأخيرا آمل من المعلمين والمعلمات أن يبذلوا كل ما في وسعهم لإنجاح هذه المهمة التي ستعود بالفائدة والنفع على   طلبتنا ، راجيا تزويدنا بأية ملاحظات ترونها مناسبة، وتلحظونها في أثناء التطبيق، وستكون هذه الملاحظات محط اهتمامنا وتقديرنا.

مع تمنياتي لكم بالتوفيق والنجاح...

معد الاختبار/ واصل أبو جبين

2011/12/3م

إذا كان للمحكمين أية تعليقات على هذه التعليمات أرجو إضافتها هنا:

_____

_____

_____

1.7 A form of reading comprehension test which was sent to Arbitrators.

<div dir="rtl">

بسم الله الرحمن الرحيم

اختبار القراءة الاستيعابية

حضرة السيد /الدكتور   :.....................................   المحترم

مركز العمل : ....

السلام عليكم ورحمة الله وبركاته، وبعد:

يقوم الباحث بإجراء دراسة بعنوان : " العلاقة بين مهارات التفكير الإبداعي والقراءة الاستيعابية للغة الأجنبية "الإنجليزية" لطلبة الصف العاشر في   "فلسطين" لنيل درجة الماجستير من جامعة القدس. وقد اعتمدت الدراسة على   عدة أدوات للبحث، ومنها: " اختبار للقراءة الاستيعابية " باللغة الإنجليزية، واختبار لقياس مهارات التفكير الإبداعي " الطلاقة، والمرونة، ولأصالة " عند الطلبة.

وقد قام الباحث بإعداد اختبار القراءة الاستيعابية، واختبار لقياس مهارات التفكير الإبداعي عند طلبة الصف العاشر وقد عرض الأخير على عدد من الأكاديميين للتحكيم؛   وقد تم إعداد اختبار القراءة بناء على الخطوات المبينة في مرفق التحكيم (مرفق لكم بالطي خطوات إعداد هذا الاختبار، والأسس التي اعتمد عليها الباحث في اختيار فقراته، وتعريفا موجزا بخطوات إعداد الاختبار)؛ راجيا التكرم بتحكيمهما لغايات إجراء الصدق لأداتي البحث، علما بأن ملاحظاتكم وآراءكم ستكون موضع اهتمام الباحث وتقديره، للاسترشاد بها، والعمل في ضوئها قبل البدء بتطبيق الاختبار، مقدرا لكم جهودكم، وشاكرا لكم حسن تعاونكم .

الباحث: واصل أبو جبين

3/ 12 / 2011 م

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خطوات إعداد الاختبار :

لقد تم   إعداد هذا الاختبار وفق الاعتبارات الآتية:

1- الاطلاع على أنواع القطع المستخدمة في الاختبارات بشكل عام حيث وجد أنها أكثر من نوع فمثلا هناك القطع المكتوبة للطلاب الأجانب من أهل اللغة native speakers وهو النوع المفضل في مثل هذه الاختبارات، وهناك ما هو معدل لأغراض علمية معينة أو تعليمية وهناك ما هو مبسط، وهذه الأنواع كما يلي:

Authentic texts

Modified texts

Simplified texts

ولكن تجدر الإشارة هنا، أن الباحث قد اضطر لتعديل بعض الألفاظ والكلمات بناء على الاختبارات الاستطلاعية التي أجراها، وذلك كي تلائم مستوى الطلبة حيث لا يخفى على أحد الضعف الملموس لدى طلبتنا في هذا الخصوص، وهنا، فقد قام الباحث باختيار قطعة أدبية وأخرى علمية وذلك من كتب المنهاج السابق والمنهج العماني حيث وجدها الباحث مناسبة وملائمة بعد استشارة الزملاء والاتفاق على إحداها.

2- الوقوف عند أهم المواصفات للقطع المختارة عالميا لاختبار القراءة الاستيعابية وبناء على البحث العلمي والدراسات السابقة، ومن أهم هذه الخصائص أن تكون هذه القطعة:

Interesting
Attainable
At the level of students
Unseen before the test

3- الاطلاع على البحث العلمي المتعلق باختبار القراءة الاستيعابية بحيث كانت هذه الركيزة الأساسية لإعداد فقرات هذا الاختبار، وقد وجد الباحث مجموعة من الأسئلة على الاختبار أن يقيسها كي يكون اختبار يقيس الاستيعاب بشكل دقيق، وهذا ما يعرف بصدق البناء validity construct وكانت التالية أهمها:

   a. Main ideas (best title)
   b. Vocabulary
   c. Details or guessing

4- الوقت حيث قام الباحث بإجراء الاختبار عدة مرات للتأكد من أنه كاف وملائم، وللتأكد من ثباته، أيضا.

5 – الاستفادة من الجانب النظري الخاص بالدراسة، وبالرجوع إلى الأدب التربوي في هذا المجال وجد الباحث كما هائلا من اختبارات التوفل (TOFEL) وغيرها والتي تقيس هذه المهارة، حيث جعل الباحث فقرات اختبار التوفل مقياسا لإعداد الاختبار حيث وجد أنها تنسجم مع البحث العلمي وتراعي صدق البناء كما وتتمتع أيضا بصدق وثبات عاليين.

6- مراعاة البيئة وخصوصيتها من ناحية، وخصوصية المنطقة التي سيطبق فيها الاختبار من ناحية أخرى.

7 – الاطلاع على الدراسات السابقة التي قامت في هذا المجال، والطريقة التي اعتمدتها لقياس مهارة القراءة الاستيعابية.

8 – الخبرة الذاتية للباحث؛ حيث يعمل في مجال   التدريس، ويحتك مباشرة بالطلبة و بالمعلمين والمشرفين التربويين، ويقوم ، ويوجه أسئلة مباشرة للطلبة تتضمن إجابتها مهارات   القراءة الاستيعابية، مما يساعده في تقدير مدى ملاءمتها للطلبة.

يقترح الباحث أن الاختبار النهائي سيتكون من   قطعتين، يقوم الطلبة بالإجابة عنها خلال حصة دراسية واحدة، مدتها (40) دقيقة، بمعدل 20 دقيقة لكل قطعة، ويقوم المعلم/المعلمة بإيضاح المقصود من الاختبار؛ حيث يتم وضع تعليمات واضحة مع الاختبار وخصص لها دقيقتين للإيضاح. لذا يرجى التكرم بدراسة هذه الفقرات لرؤية مدى مناسبتها، وقدرتها على قياس ما وضعت له؛   ومناسبتها للمرحلة التي اختارها الباحث (الصف العاشر) ، وهنا قام الباحث بتقسيم القطعتين إلى نموذجين، يعطى الطالب الأول النموذج " A" والطالب الذي بجانبه النموذج "B"، ويتركهم المعلم للإجابة بشكل هادئ، وبعد انقضاء   18 دقيقة ، يقوم المعلم بجمع الأوراق ويسلمهم النموذج الآخر وبهذا يتجنب الباحث تأثير الهالة على الطلبة مما قد يؤثر على إحدى القطعتين.

وتجدر الإشارة هنا أن الباحث اجتهد قدر ما يستطيع في إعدا   د هذا الاختبار وفقراته، مستعينا بزملائه ومستنيرا بآرائهم، في كل خطواته، للخروج بأفضل صورة. كما ويقتنع الباحث بأن الاختبار بهذه الطريقة لا يهمل الأداء العملي والمرجو من الدراسة أو الجانب التطبيقي، فإعطاء المزيد من الوقت مما يزيد عن 40 دقيقة سيربك العملية التعليمية ويعطل جدول الحصص المدرسية، كما وأنه سيربك التلاميذ وبهذا قد لا يحصل على النتائج المرجوة.

شاكرا لكم حسن تعاونكم، ومؤكدا بأن آراءكم سيكون لها الأثر الأكبر في نتائج هذه الدراسة، والله من وراء القصد.

تعليمات الاختبار

أخي المعلم .... أختي المعلمة:

يهدف هذا الاختبار إلى قيا   س مهارة القراءة الاستيعابية reading comprehension لدى طلبتنا، وذلك بهدف إجراء بحث علمي, بما سيعود بالفائدة على أبنائنا إن شاء الله.   لذا أرجو التكرم بالتقيد بالتعليمات الآتية بدقة، والالتزام بها؛ حتى نتمكن من الوصول إلى نتائج سليمة- قدر الإمكان - يعتمد عليها في التطوير والتحديث. شاكرا لكم حسن تعاونكم ومقدرا لكم جهودكم:

1- يعطي الاختبار معلم اللغة الإنجليزية وتحت إشراف إدارة المدرسة، وتكون مهمة المعلم فقط قراءة كلمة غير واضحة، أو غير مقروءة بشكل جيد، ويمنع ترجمة الكلمات أو العبارات الواردة في القطعة للطلبة، بحيث يكون جميع الطلبة متساوون في ظروف هذا الاختبار.

1- إعطاء كل نموذج من النموذجين "A" و "B" في ورقة منفصلة، وقراءته وتوضيح المطلوب منه للطلبة؛ حتى يتم التأكد من أن الطلبة يسيرون في الاتجاه الصحيح، وكذلك الإجابة على استفساراتهم إذا كان لهم استفسارات قبل بدء الإجابة.

2 – تمنع الأسئلة في أثناء الإجابة منعا تاما ما عدا قراءة الكلمات غير الواضحة؛ حرصا على توفير جو هادئ ومريح يساعد على التفكير بهدوء وترو، وحرصا على عدم   إرباك التلاميذ في أثناء الإجابة وذلك بإزالة كل المشتتات التي يمكن أن تؤدي إلى ذلك.

3 – قراءة التعليمات للطلبة جميعا والتأكد من أن الجميع يفهمون المطلوب بشكل واضح وسليم في مدة دقيقتين وذلك قبل بدء الإجابة.

5 – إعطاء كل قطعة مدة 18 دقيقة فقط اعتبارا من بدء الإجابة، ثم يتم جمع الأوراق من التلاميذ، مع مراعاة الالتزام الدقيق بالزمن المحدد للإجابة, وتوزيع النموذج الآخر.

6 – مراعاة ضرورة عدم إعطاء الاختبار في الحصة الأخيرة أو في الحصة التي تسبق الفسحة، ويفضل أن يتم إعطاؤه في الحصة الثانية.وإذا احتاج المعلم إلى اقتطاع جزء من وقت الطلاب لأمر ما، فيجب أن يبين لهم بأنه سيعوضهم عن هذا الوقت.

7 – بيان أهمية الاختبار للطلبة، وأن نتائجه ستعود عليهم بالنفع والفائدة، وأن هذا الاختبار ليس عليه درجات مدرسية ولا يؤثر في نتائجهم، وذلك حرصا على خلق أجواء خالية من التوتر، وهيبة الاختبار المترسبة في نفوس التلاميذ، وضمان سير تفكير الطلاب سيرا طبيعيا.

9- يتأكد المعلم من أن الطالب قد كتب اسمه ومدرسته قبل استلام الورقة منه باللغة العربية.

9 – إذا كان هناك طالب/ة في الصف لا يستطيع الكتابة لسبب طارئ، أو لعدم قدرته على الكتابة   ،
يتولى المعلم مهمة الكتابة عنه، ويقوم بتسجيل إجاباته، وذلك بعد الانتهاء من الاختبار، في غرفة
خاصة، ويتم الإشارة إلى ذلك.

10- مراعاة توفير أدوات الكتابة من أقلام ومساحات ... لاستعمالها عند الطلب.

وأخيرا آمل من المعلمين والمعلمات أن يبذلوا كل ما في وسعهم لإنجاح هذه المهمة التي ستعود
بالفائدة والنفع على طلبتنا ، راجيا تزويدنا بأية ملاحظات ترونها مناسبة، وتلحظونها في أثناء
التطبيق، وستكون هذه الملاحظات محط اهتمامنا وتقديرنا.

مع تمنياتي لكم بالتوفيق والنجاح...

معد الاختبار/ واصل أبو جبين

2011/12/3م

إذا كان للمحكمين أية تعليقات على هذه التعليمات أرجو إضافتها هنا:

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1.8 Names of Arbitrators

Torrance Test of Creative Thinking

Name	Occupation
1. Dr. Afif Zidan	Al- Quds University
2. Dr. Atta Mohammad Abu Jabeen	Hebron University
3. Prof. Ali Mahdi Kazim	Sultan Qaboos University
4. Proff Nabil Al- Jondi	Hebron University
5. Mr. Bassem Ismail Samammreh	Directorate of southern Hebron

Reading Comprehension Tests

No.	Name	Occupation
1	Mr Abd Al- Hameed Rabaa	Expert Teacher/ Directorate of Southern Hebron
2	Mr Abdel-Shafi Younis Seyam	Supervisor/ Directorate of Southern Hebron
3	Mr Abdel- Rahman Makhamreh	Supervisor/ Directorate of Southern Hebron
4	Dr. Adnan Shehadeh	PPU University/ Hebron
5	Bassem Ahmad Abu Sharkh	Supervisor/ Directorate of Southern Hebron
6	Mr Ibrahim Samamreh	Expert Teacher/ Directorate of Southern Hebron
7	Mrs Myasar Abu Ghlasi	Supervisor/ Directorate of Southern Hebron
8	Mr Rajeh I'mar	Supervisor/ Directorate of Southern Hebron

العلاقة بين مهارات التفكير الإبداعي والقراءة الاستيعابية في اللغة الإنجليزية لطلبة الصف العاشر في فلسطين

إعداد: الطالب واصل عطا محمد أبو جبين

إشراف: الدكتور عدنان شحادة

ملخص

تهدف هذه الدراسة الوصفية إلى فحص العلاقة بين مهارات التفكير الإبداعي و القراءة الاستيعابية في اللغة الإنجليزية (كلغة أجنبية) في مديرية تربية جنوب الخليل لعينة من طلاب الصف العاشر الأساسي، تكون مجتمع الدراسة من جميع طلاب الصف العاشر في الفصل الدراسي الثاني للعام الدراسي 2011\2012م. وكان عددهم (3355) طالب وطالبة، وتكونت العينة العشوائية الطبقية في هذه الدراسة من 199 طالب وطالبة.

ولتحقيق هدف الدراسة حاول الباحث الإجابة على أسئلة البحث التالية: إلى أي مدى ترتبط درجات اختبار مهارات التفكير الإبداعي بدرجات اختبار القراءة الاستيعابية؟ إلى أي مدى يتأثر اختبار القراءة الاستيعابية أو مهارات التفكير الإبداعي بالمتغيرات المستقلة الآتية: النوع الاجتماعي ؛ مكان السكن (المدينة والقرية والمخيم) ؛ المقدرة اللغوية في اللغة الإنجليزية؟

تم اشتقاق عدة فرضيات صفرية من الأسئلة أعلاه ، وللتحقق منها تم استخدام ثلاثة أدوات لجمع البيانات، الأولى عبارة عن اختبار القراء الاستيعابية للغة الإنجليزية . أما الأداة الثانية فكانت اختبار التفكير الإبداعي لتورانس (TTCT) ؛ وأخيرا نموذج خاص لجمع علامات اللغة الإنجليزية للطلبة المشاركين للصفوف الثلاثة 8، 9 و 10. وكانت الأداة الأولى عبارة قطعتين يحتوي كل منهما على عشرة أسئلة مع أربعة خيارات. والثاني ة ه ي أربعة أسئلة مختارة من أصل سبعة من اختبار تورانس للتفكير الإبداعي المقنن.

وللتحقق من صدق وثبات الاختبارات ، تم عرض اختبار القراءة الاستيعابية على عدد من مشرفي اللغة الإنجليزية بالإضافة لمجموعة من المعلمين ذوي الخبرة؛ كما وتم عرض اختبار التفكير الإبداعي على مجموعة من أساتذة الجامعات الفلسطينية. وللتحقق من ثبات اختبار القراءة تم استخدام طريقتين، كانت الأولى الاختبار وإعادة الاختبار (Test-retest) حيث كان معامل الارتباط (0.83) للنص الأدبي ، و (0.81) للنص العلمي. والطريقة الثانية كانت باستخدام كرونباخ ألفا كرونباخ ألفا لحساب الثبات، وكانت قيمة ألفا في القطعة الأدبية (0.78)؛ وللقطعة العلمية (0.72). أما بالنسبة لاختبار التفكير الإبداعي المقنن فقد تم حساب معامل الارتباط بطريقة لاختبار وإعادة الاختبار، وكانت النتيجة (0.83) للطلاقة، (0.78) للمرونة و (0.72) للأصالة.

عند الانتهاء من جمع البيانات ولاختبار فرضات الدراسة ، تم معالجتها من خلال برنامج التحليل الإحصائي (SPSS) حيث تم حساب المتوسطات الحسابية، الانحرافات المعيارية، واستخدام اختبار t-test، تحليل التباين الأحادي ، معامل ارتباط بيرسون، واختبار المقارنات البعدية (LSD).

بعد الانتهاء من اختبار الفرضيات ، توصل الباحث إلى النتائج التالية: هناك علاقة إيجابية بين علامات اختبار التفكير الإبداعي والقراءة الاستيعابية في اللغة الإنجليزية   وبمعامِل ارتباط بيرسون (0.36)؛ لا توجد فروق ذات دلالة إحصائية   في متوسطات علامات القطعة العلمية، الأدبية أو في القراءة بشكل عام تعزى إلى الجنس، حيث كانت قيمة ت المحسوبة (0.99 = t) ؛ كما ولم توجد فروق ذات دلالة إحصائية في متوسطات درجات اختبار مهارات التفكير الإبداعي تعزى إلى الجنس ، حيث كانت قيمة ت المحسوبة (0.55=t)؛ توجد فروق ذات دلالة إحصائية في متوسطات اختبار القراءة الاستيعابية والتفكير الإبداعي تعزى لمكان السكن ، وكانت الفروق لصالح المدينة ، وكذلك تأثر كل منهما بالمقدرة اللغوية العامة في اللغة الإنجليزية حيث كانت قيمة   ت المحسوبة على التوالي (t=4.56; 4.12).

بناءً على النتائج التي توصلت إليها الدراسة ،   أعد الباحث عدد من التوصيات ذات الصلة ، نلخص أهمها في أن يتم دمج أنشطة التفكير الإبداعي مع دروس القراءة الاستيعابية؛ والعمل على دمج برامج واستراتيجيات التفكير العالمية في الكتب المدرسية وتدريب معلمي المدارس للتعامل مع الإبداع داخل الصفوف المدرسية لتشجيع المخرجات الإبداعية؛ وينبغي على جميع المهتمين بعملية التعليم والتعلم أن يولوا المزيد من الاهتمام بالتفكير الإبداعي وعملية القراءة في سن مبكرة؛ التركيز على القراءة والتفكير الإبداعي في الدراسات المستقبلية القادمة من أجل فهم أعمق للعلاقة بينهما عبر المراحل العمرية المختلفة.