Evaluating the Higher Order Thinking Skills in Reading
Exercises of English for Palestine Grade 8

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the Requirements for the Master Degree of Education

August, 2012
(Quran, Al-Qalam, verse 1)
Dedication

This humble work is dedicated to:

The soul of my father, who inspired me to continue my education,

my compassionate mother for her endless patience and unwavering support that she has shown during this long and hard process,

my dear brothers; Ramzy, Ibrahim, Fayez, and Yousef,

my great sisters; Manal, Lucy, Hanan, and Ahlam,

my brother in law, Dr. Farid Qablan for his constant encouragement,

my best friends; Wafaa Qishta and Omaima Al Masri, and

all those who supported me till the completion of this work.
ACKNOWLEDGEMENT

First, I am awarding my great thanks for the Almighty Allah who all the time helps and grants me health, energy, power and courage to complete this work which is a cornerstone in the direction of achieving success in my life.

I am extremely grateful to my supervisor and committee chair Dr. Awad Keshta for his support, wisdom, and pushes along the way to keep going. He has always offered advice when I needed.

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My heartfelt thanks go also to Dr. Sadeq Firwana who assisted me in various ways from time to time to complete this work successfully.

My appreciation and gratitude are paid to the referees of the tools of my study for their valuable and intelligent notes and suggestions.

I would not have been able to conduct this study without the active participation of Mrs. Zulfa Badr Al Din, who devoted her time and experience to cooperate with me while preparing this thesis.

Last but not least, special thanks and gratitude go to my family for their patience, support and prayers and special thanks are paid to my kind sister, Lucy and her husband Dr. Farid Qablan for their continuous help and valuable support.
Abstract

This study aimed at evaluating the availability of higher order thinking skills (HOTS) in the reading exercises of English for Palestine Grade 8 to find out to what extent the reading exercises in the SB and WB match the suggested criteria.

To achieve the aim of the study, the researcher adopted the descriptive analytical approach. Consequently, she used two tools to collect the needed data which are: a content analysis card and a structured interview.

Specifically, to formulate the content analysis card, the researcher built the suggested criteria benefiting from the previous studies, related literature, and institutions' publication.

Concerning the validity of the used tool, the analysis card was shown to a number of experts to benefit from their valuable comments and modification. In the light of their comments, the final shape of the analysis card was constructed.

Additionally, to ensure the reliability of the study, the researcher asked for the cooperation of another researcher to analyze the book along with her.

After that, the researcher interviewed 168th grade English language teachers to find out their views regarding the availability of HOTS in the reading exercises in order to validate or refute the findings she got from the analysis card. The following findings were drawn out from the analysis of the book:

Only fifteen out of the 26 items i.e., % 58 which are considered the criteria to evaluate the reading comprehension exercises in the target book 'English for Palestine Grade 8' are available. Whereas the other eleven items i.e., % 42 are completely neglected.

The skills available are not well-distributed in the SB neither in the WB. Thus, the distribution of the available HOTS categories is the following:

- Concerning the analysis skill, it got % 51.92. The SB has % 58.44, whereas the WB has % 33.33.
- Regarding the synthesis skill, it got % 41.35. The SB has % 32.47 while the WB has % 66.67.
- The evaluation skill, on the other hand, got the least score among the other two skills. It got the percentage of % 6.73 in only the reading exercises of the SB, with noting that the exercises of the WB have no share of this skill.

In regard to the interview, there was almost agreement among the 8th grade English language teachers that there is a shortage in the HOTS in the reading exercises and they are not well-treated.

In the light of these data, the researcher recommends modifying the reading exercises by providing them with more enrichment material that include HOTS. English language supervisors are also recommended to hold more workshops to train English language teachers how to enhance such skills in students' mentalities.
Abstract (Arabic)

ملخص الدراسة

تقوم مهارات التفكير العليا في تمارين القراءة في كتاب الصف الثامن مبحث اللغة الإنجليزية

هدف الدراسة إلى تقييم مهارات التفكير العليا في تمارين كتاب الطالب لصف الصف الثامن مبحث اللغة

الإنجليزية لمعرفة مدى التوافق بين تمارين القراءة في الكتب المذكورة والمعايير المقترحة.

وتكنولوجيا الهدف من الدراسة، اتبعت الباحثة النهج الوصفي التحليلي، ولهذا الغرض استخدمت الباحثة

آداتين لجمع البيانات، هما بطاقة تحليل المحتوى ومقابلة مقتصدة.

وإضافة إلى هذا، قامت الباحثة ببناء معايير التقييم بعد مراجعة الدراسات السابقة والأدب التربوي ومنشورات المؤسسات، كما وعرضت بطاقة التحليل على مجموعة من المحكمين للتحقق من

صدقها والحصول على نسبة نهائية منها.

أما فيما يخص نتائج الدراسة فقد تم إجراء التحليل بالتعاون معًا بأخرى ومن ثم قامت الباحثة

بمراجعة سنة عشر مدرسة ومدرسة من مدرسي ومدراس اللغة الإنجليزية للصف الثامن في مدينة خان يونس

وذلك من أجل استدلال أثرهم حول مدى توافر مهارات التفكير العليا في تمارين القراءة من أجل تثبّت أو

رفض النتائج التي حصلت عليها الباحثة من خلال عملية التحليل.

و بعد عملية تحليل الكتب، توصلت الدراسة إلى:

1- تتوفر 15 بنداً من إجمالي البند المقترحة والذي يبلغ عدد 26 لتمييز مهارات التفكير العليا في تمارين

القراءة بكتاب الصف الثامن وهو ما يمثل 58 %، أما البنود التي لم تتساهم عليها تمارين القراءة فقد

بلغت 11 بنداً وتمثل 42 %.

2- المهارات التي تتوفرت في الكتاب لم تكن موزعة بشكل جيد في الكتبين (كتاب الطالب وكتاب

التدريبات)، حيث كان توزيع المهارات في الكتبين على النحو التالي:

• فيما يتعلق بمهمة التحليل، حصلت هذه المهمة على نسبة 51.92 %، منها 58.44% في كتاب

  الطالب و33.33% في كتاب التدريبات.

• حصلت مهارة التركيب على نسبة 41.35 %، 32.47% منهما في كتاب الطالب و66.67% في

  كتاب التدريبات.

• فيما يتعلق بمهمة التقييم فقد حصلت على أقل نسبة وهي 6.73 % في كتاب الطالب فقط مع

  العلم أن كتب التدريبات لم تحقق أي مبارة لهذه المهارة.

أما بالنسبة لنتائج المقابلة، فقد كان هناك اتصال بين معمل ومعلم اللغة الإنجليزية لصف الصف الثامن

أن هناك نقص في مهارات التفكير العليا في أسئلة القراءة بالكتاب بالإضافة إلى عدم معلّجتها بشكل جيد.

استنادا إلى النتائج التي أظهرتها الدراسة، أوصت الباحثة بالتالي:

• تعديل تمارين القراءة وذلك عن طريق ترويدها بمادة إثرائية تحتوي على مهارات التفكير العليا، كما

  وأوصت الباحثة في اللغة الإنجليزية بإعداد العديد من ورشات العمل لمعمل اللغة الإنجليزية بهدف

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1.9 Summary
Chapter One

Study Statement and Background

1.1 Introduction

Book evaluation is a means of matching textbooks with world continuous changes and progress. This is so necessary because what was taught fifty years ago is not the same as what students and societies need now. Accordingly, it is well known that education and curriculums govern building future citizen. Due to this fact, nations all over the world are trying through different means to improve their educational programs. To achieve this, evaluative processes are carried out upon the textbooks to find out the points of weaknesses and strengths as well. Thus, the evaluation process covers different fields of the curriculum; mostly the content presented by the textbook. Ansary and Babaii (2002: 1-2) state that:

Although the textbook is not the only tool for the teaching and learning process, it is still of a significant impact for achieving the language learning objectives. Since teachers find it difficult to develop their own classroom materials, have limited time and lie under external pressure that restricts their ability, it gives more emphasis on the use and utility of the textbook to compensate the loss of authentic materials.

Specifically in relation to TEFL, TESL books As Genesee (2001: 144-150) states:

Evaluation in TESOL settings is a process of collecting, analyzing and interpreting information. This process enables us to make informed decisions through which student achievement will increase and educational programs will be more successful.

Thus, the current textbooks should meet the needs of the people nowadays in addition to the current developments in the world. In this regard, evaluation of textbooks can be conducted using checklists of criteria through the analytical research. "Analysis and evaluation provide useful data to teachers, supervisors, and other educational departments with concrete evidence regarding strong and weak points of the evaluative books" (Riffe et al., 1998).

Concerning the newly implemented Palestinian textbooks, several initiatives have been carried out to evaluate them and check their effectiveness. Ali's study (2010) was an example of evaluating the English textbooks English for Palestine Grade 9.
Specifically, she evaluated the reading texts and exercises in the light of certain criteria in that book.

However, reading comprehension texts are important vessels that may train learners to practice all levels of cognitive skills and they are the base of the whole learning process. To demonstrate, any type of reading aims to achieve comprehension. Anyhow, evaluating reading comprehension texts and exercises is of great importance because reading and comprehending what is read is the most important means of gaining and developing individuals' knowledge. In any case whatever anyone reads, he has to achieve a level of understanding, otherwise, reading is an aimless activity. In fact, reading is an important skill in the first and second language. Raymond (2006) assures that "effective reading requires not only accurate reading skills, but also being able to comprehend easily and automatically". Failing to read and comprehend what is read in early learning stages leads to educational problems in learner's life. (Casey, 2001) states "Failing to learn to read and write in the early years results in more special education placement, retention, and poor self-esteem for the learner than any other cause" Research consistently points to the direct relationship between comprehension skills and success in learning L1 and L2 and all other subjects. Anyhow, reading comprehension skills should be taught beside all cognitive skills starting from recalling information schemata, to comprehension, application, analysis, synthesis, and evaluation. It should be practiced through reading comprehension exercises. Consequently, reading comprehension text should be provided with exercises that develop these skills. As a result, there is an agitating need to successive evaluation of reading comprehension exercises to confirm their effectiveness as a means of developing cognitive skills specifically higher order thinking skills (HOTS).

In this concern, it can be argued that HOTS are necessary skills that build productive citizens as productivity is based on individuals' ability to analyze, to combine knowledge of different resources, to discuss, to judge, and to evaluate. Therefore, it is the message of the textbook to build citizens who are capable of thinking critically; solving problems, planning, analyzing, and making decisions.

Hence, it is worth noting that curriculum and educational processes are responsible for building learners' abilities and thinking habits. This can be achieved when the
textbooks are enriched with critical thinking activities to urge learners to think; otherwise, they will become low achievers who focus on lower thinking skills (LOTS). Marier (2002), affirms that:

students should be taught how to read in order to become effective readers. To fulfill this aspect, good readers use higher-order thinking strategies to think about, and control their reading before, during, and after reading a selection. Students who do not use HOTS are usually low achievers in reading

Accordingly, research in the field of evaluating textbooks for the availability and treatment of HOTS has been conducted at the levels of all disciplines; science, math, social studies, and language books. Moreover, it has been conducted on the level of achievement test because most teachers' teaching activities are oriented towards exams, so they neglect what is excluded from the exam. Besides, exam wash back influences educational policies and book designing and designers, it incites them to reevaluate textbooks and educational plans to compensate for weaknesses.

Following the same path, this research evaluates HOTS in *English for Palestine Grade 8* in reading comprehension exercises. To achieve that, the researcher has built a check list based on Bloom's taxonomy as a criterion for the evaluation process. For more clarification, Bloom's taxonomy poses six cognitive skills through which thinking processes pass from the bottom to the top. Successively, they are recalling, comprehension, application which are called lower thinking skills (LOTS). These LOTS are mounted by other three skills which are called higher order thinking skills known as (HOTS) represented in analysis, synthesis, and evaluation. Analysis refers to individuals' ability to break material into its smaller components. Synthesis represents assembling parts of the material to produce a new forms. Evaluation, on the other hand, refers to individuals' ability to judge and take decisions.

To conclude, analyzing the target textbook *English for Palestine Grade 8* is a process that sheds the light on the strengths and weaknesses of reading comprehension exercises and the way they involve and treat (HOTS).

1.2 Statement of the problem:

As the researcher works in the field of teaching English in preparatory schools, she noticed students find difficulty in answering reading comprehension question at the levels of higher order thinking skills; analysis, synthesis, and evaluation.
Consequently, she thinks that this deficiency is ascribed to the lack of practicing these activities. Any lack of practicing (HOTS) activities could be attributed to the shortage of such exercises that accompany reading comprehension texts, or to neglecting them by teachers due to the limited time of the classroom periods.

As a result, the current study is the first to evaluate HOTS in reading exercises of *English for Palestine* – grade 8. The researcher wants to evaluate these skills. Her purpose is to identify the areas of weaknesses so that she could provide effective advice to those who are interested in developing English language curricula.

### 1.3 Research questions:

The problem is stated in the following major question:

**To what extent do the higher order thinking skills (HOTS) exist in the reading exercises of English for Palestine grade 8 in the light of the suggested criteria?**

The following sub-questions emerged from the above mentioned one:

1. To what extent do the reading exercises of English for Palestine – grade 8 include analysis skill?
2. To what extent do the reading exercises of English for Palestine – grade 8 include synthesis skill?
3. To what extent do the reading exercises of English for Palestine – grade 8 include evaluation skill?
4. What is 8th grade English language teachers' evaluation of the higher order thinking skills in the reading exercises of English for Palestine Grade 8?
5. What is a suggested framework that can be introduced for effective development of higher order thinking skills in English for Palestine Grade 8 textbook?

### 1.4 Purpose of the study:

The current study aims to:

1. Formulate a checklist of criteria for evaluating HOTS in the reading exercises in English materials,
2. Pinpoint the areas of weakness in HOTS that are latent in the reading exercises of English for Palestine – grade 8 in terms of the suggested criteria, and
3. provide a framework for teaching and developing HOTS.

1.5 Significance of the study:

The study may help the following:

Teachers:

To organize effective teaching learning environment by raising questions that nurture students' critical thinking abilities and understand the hidden concepts / ideas.

Supervisors:

To conduct training courses that revolve around enhancing critical thinking and familiarizing the English language teachers with the effective ways for asking questions underlying these concepts. In addition, they may work with teachers to provide enrichment material that support HOTS.

Syllabus designers:

To inspire syllabus designers to modify, organize, and enrich English language curricula with activities based mainly on developing HOTS.

1.6 Definition of operational terms:

English for Palestine 8: It refers to the English curriculum for the eighth graders published by the Palestinian Ministry of Education and Higher Education in August 2008 aims at developing the four language skills.

Evaluation: It refers to analyzing textbooks to find out their strengths and weaknesses and to promote the improvement of it. In the current study, it aims at investigating the availability and the treatment of HOTS.

SB (Student Book): It is the book that presents the new language and provides activities for practice and recycling. (ETB, 2007: 5). In the present study it is English for Palestine 8.

WB (Work Book): It is the book that provides students with additional practice for class and home use. (ETB, 2007: 5).
**Higher order thinking skills:** The ability to analyze, synthesize and to evaluate based on cognitive skills of Bloom's taxonomy which the researcher test by the content analysis card.

**Analysis:** It refers to the ability to break down a concept into its smaller parts. This process may require students to categorize information related to the text, guess meaning of word through context, recognize causes and effects, infer the author's attitudes, and/or compare between items related to a certain text.

**Synthesis:** It refers to the ability to form something new or compile objects from separate parts. This skill may require students to summarize texts, retell the material using their own words, generate information related to the text, and/or predict events or solutions related to the text.

**Evaluation:** It refers to the ability to judge the value of certain objects. In this regard, students are to express their opinions toward situations in texts, conclude themes of texts, and/or recognize subjectivity or objectivity.

**Reading exercises:** All the questions that come under the reading texts and start with: read and answer, read and choose, read and classify, read and put 'T' or 'F', etc. They are usually in lesson 3 and 4 of the English textbooks.

**1.7 Limitation of the study:**

1. This evaluative study is restricted to evaluating HOTS in reading exercises in *English for Palestine – grade 8* in both SB and WB.
2. The whole population of the proposed study will be all the teachers of 8th grade in Khanyounis city only.
3. The study takes place in the scholastic year (2011 – 2012).
4. The study is restricted to the used tools.
1.8 List of abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CB</td>
<td>Course book</td>
</tr>
<tr>
<td>2. CLT</td>
<td>Communicative language Teaching</td>
</tr>
<tr>
<td>3. EFL</td>
<td>English as a Foreign Language</td>
</tr>
<tr>
<td>4. ELC</td>
<td>English Language Curriculum</td>
</tr>
<tr>
<td>5. ESL</td>
<td>English as a Second language</td>
</tr>
<tr>
<td>6. ETB</td>
<td>English for Palestine Teacher's Book</td>
</tr>
<tr>
<td>7. FL</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>8. HOTS</td>
<td>Higher Order Thinking Skills</td>
</tr>
<tr>
<td>9. QCERD</td>
<td>Qattan Centre for Educational Research and Development</td>
</tr>
<tr>
<td>10. SB</td>
<td>Student's Book</td>
</tr>
<tr>
<td>11. SLA</td>
<td>Second Language Acquisition</td>
</tr>
<tr>
<td>12. TB</td>
<td>Teacher's Book</td>
</tr>
<tr>
<td>13. TEFL</td>
<td>Teaching English as a Foreign Language</td>
</tr>
<tr>
<td>14. TESL</td>
<td>Teaching English as a Second Language</td>
</tr>
<tr>
<td>15. WB</td>
<td>Work Book</td>
</tr>
</tbody>
</table>

1.9 Summary:

This chapter is an introduction to the entire research work. It deals with the background of the study, the statement of the problem, the research questions, the study purpose and significance, the definition of terms, the limitations of the study, and finally the abbreviations used in this study.
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2.4.6 Approaches to teaching thinking

2.4.7 Enhancing thinking skills of learners

2.4.8 Factors that inhibit thinking

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2.5.2 Reading objectives in English for Palestine Grade 8

2.5.3 Components of English for Palestine Grade 8

2.5.4 Format of units in English for Palestine Grade 8

2.6 Summary
Chapter Two
Section I
Theoretical Framework

2.1 Introduction

The current chapter includes two main sections: the theoretical framework and the previous studies. The first section consists of four parts: part one introduces the concept of evaluation, material evaluation, the use of textbook, the common features of good textbooks, phases of material evaluation, and textbook evaluation schemes. Part two introduces the meaning of reading, its two types, and requirements for effective reading. Part three introduces HOTS in terms of its: definition, taxonomies, related concepts, major strategies. Besides, it sheds the light on approaches to teaching thinking, how to enhance thinking skills of learners, factors that inhibit thinking and theories that are related to learning and HOTS. Part four introduces an overview of English for Palestine Grade 8, reading objectives in it, its components and format. The second section in this chapter deals with the previous studies and commentary on them.

2.2 Evaluation

2.2.1 What is evaluation?

The term evaluation varies differently since there are many definitions related to it. Thus, there is a textbook evaluation, curriculum evaluation and/or program evaluation. The main concern in this study is textbook evaluation. First, various definitions regarding evaluation are included in the literature review. The researcher will introduce some as follows:

Brown and Rogers (2002: 289) define evaluation as "the process of seeking to establish the value of something for some purpose".

Another definition of evaluation is:

Evaluation interprets the past or present in order to improve the future. It provides knowledge and understanding through focusing on events included in research questions (who, what, when, where, and why). It also provides researchers with techniques of criticism which are useful for assessing the authenticity and trustworthiness and usefulness of the things which researchers judge (Riffe, et al. 1998: 50)
El Mustafa (1988 cited in Masri, 2003: 10) sees evaluation as "process of providing important information on the merits of goals, designs, instruction, content and the effectiveness of educational activities, for students, teachers, textbook, authors and other decision makers"

Brown (1989 cited in Weir and Robert, 1994: 4) states that evaluation is:

the systematic collection and analysis of all relevant information necessary to promote the improvement of the curriculum, and assess its effectiveness and efficiency, as well as the participants' attitudes within a context of particular institutions involved

It is obvious that the above listed definitions move gradually from general to more specific. Accordingly, the last one "Brown's definition" is the most comprehensive one, it sheds the light on the process of evaluating a particular curriculum taking into account the needs of the participants and their attitudes as well.

As mentioned earlier, the material "textbook" evaluation is the main focus in this study, so some definitions will be introduced to know exactly what this term means.

2.2.2 Textbook evaluation:

Tomlinson (1998: xi) defines textbook evaluation as;

the systematic appraisal of the value of materials in relation to their objectives and to the objectives of learners using them. Evaluation can be pre – use and therefore focused on predictions of potential value. It can be whilst – use and therefore focused on awareness and description of what the learners are actually doing whilst the materials are being used.

In addition, material evaluation is a dynamic process which is fundamentally a subjective, rule – of thumb activity "where" no neat formula, grid, or system will ever provide a definitive yardstick" (Sheldon, 1988: 245). He added that, it consists of establishing criteria for the curriculum and its match to the syllabus. Further, Sheldon argues that the criteria and the key questions central for setting up a material evaluation scheme partly depend on "the swings of linguistic fashion (P. 240).

2.2.3 The use of textbooks:

Many studies have discussed the advantages and disadvantages of using textbooks. These studies revealed that the use of textbook has its proponents and opponents.
Sheldon (1988 as cited in Garinger, 2001) identifies three main reasons for which textbooks are heavily utilized. These reasons are:

1- Developing their own classroom materials is an extremely difficult, arduous process for teachers.

2- Teachers have limited time in which to develop new materials due to the nature of their profession.

3- External pressures restrict many teachers.

Garinger (2001) adds a number of reasons for which teachers usually use textbooks. He reports:

Each of these (the reasons mentioned above) is an accurate analysis of the strains teachers feel and using a textbook is one of the most efficient and readily available ways in which to relieve some of these pressures. They lessen preparation time, provide ready – made activities, and provide concrete samples of classroom progress through which external stakeholders can be satisfied.

In addition, Cunningsworth (1995: 7) states that course books have important multiple roles in ELT. He summarizes these roles as follows:

- A resource for presentation materials (spoken and written).
- A resource of activities for learner practice and communicative interactions.
- A reference source for learners on grammar, vocabulary, pronunciation, etc.
- A resource of simulation and ideas for classroom activities which have already been determined.
- A resource for self – directed learning or self – access work.
- A support for less experienced teachers who have yet to gain in confidence.

Another list of the advantages of using a textbook is as the following:

- It provides a syllabus for the course.
- It provides security for the students because they have kind of road map of the course.
- It provides a set of visual, activities, readings, and so saves the teacher time in finding or developing such material.
- It provides teachers with a basis for assessing students' learning.
• It may include supporting materials (e.g., teachers' guide, cassette, work sheets, video).

• It provides consistency within a program across a given level, if all teachers use the same textbook. If textbooks follow a sequence, it provides consistency between levels (Graves, 2000: 174).

These advantages of the textbook assure the idea of the textbook's importance as it is a significant part of the curriculum because it is widely used in schools. It is a central tool and object of attention of education. Teachers and their students use textbooks and its supplementary materials as resources that provide the main source of information, guidance, and structure. Thus, textbooks provide practice activities, vocabulary, and reading comprehension.

Despite having all these advantages of the textbook, still some researchers talk about its disadvantages as well.

Tomlinson (2000: 67) states:

Proponents of the course book argue that it is the most convenient form of presenting materials, it helps to achieve consistency and continuation, it gives learners a sense of system, cohesion and progress and it helps teachers prepare and learners revise, opponents counter that a course book is inevitably superficial and reductionist, in its coverage of language points and in its provision of language experience, it can't cater for the diverse needs of its users, it imposes the uniformity of syllabus and approach, and it removes initiative and power from teachers

2.2.4 The common features of good textbooks:

• Good textbooks should attract the students’ curiosity, interest and attention. In order to do this, textbooks should have novelty, variety, attractive layout, appealing content, etc. Of course they should also make sure that learning really takes place when the students use the textbooks. It is not necessarily enough that students enjoy the textbooks.

• Textbooks should help students to feel at ease. The layout of presentation, tasks and activities, and texts and illustrations should all look friendly to the students so that they feel relaxed when seeing them.
• Textbooks should help students to develop confidence. Good textbooks help to build up students’ confidence by providing tasks or activities that students can cope with.

• Textbooks should meet students’ needs. What is covered in the textbooks should be relevant and useful to what the students need to learn and what they want to learn.

• Textbooks should expose the students to language in authentic use. Generally speaking, textbooks written in authentic language are more motivating and challenging.

• Textbooks should provide the students with opportunities to use the target language to achieve communicative purposes.

• Textbooks should take into account that the positive effects of language teaching are usually delayed. Research into SLA shows that it is a gradual rather than an instantaneous process and that this is equally true for instructed learning (formal learning). So it is important for textbooks to recycle instruction and to provide frequent and ample exposure to the instructed language features in communicative use.

• Textbooks should take into account that students differ in learning styles. Tasks and activities should be variable and should cater for a range of learning styles so all students can benefit.

Textbooks should take into account that students differ in affective factors. Good textbooks should accommodate different attitudinal and motivational background as much as possible.

• Textbooks should maximize learning potential by encouraging intellectual, aesthetic and emotional involvement which stimulates both right and left brain activities. Good textbooks enable the students to receive, process and retain information through “multiple intelligences” (Tomlinson, 1988).

2.2.5 Phases of material evaluation:

Cunningsworth (1995) and Ellis (1997) have suggested that there are three different types of material evaluation related to chronological system of evaluation. They argue that the most common form is probably the "predictive" or "pre–use" evaluation that
is designed to examine the future or potential performance of a textbook. The other types of textbook evaluation are the "in-use" evaluation designed to examine material that is currently being used and the "retrospective" or "post-use" (reflective) evaluation of a textbook that has been used in any respective institution.

The researcher thinks that the above three types of evaluation represent three phases (before, during, and after). The before process aims at making any modification if needed. The during one is made to examine the effectiveness of the material itself and finally, the after process which seeks to gather information about the achievement of the course aims, what students learned, whether the material works well or not, and the problems met during the course.

2.2.6 Textbook evaluation schemes:

Preeminent theorists in the field of ELT textbook design and analysis such as Williams (1983), Sheldon (1988), Brown (1995), Cunningsworth (1995), and Hamer (1996) all agree for instance, that evaluation checklists should have some criteria pertaining to the physical characteristics of textbooks such as layout, organizational, and logistical characteristics. Other important criteria that should be incorporated are those that assess a textbook's methodology, aims, and approaches and the degree to which a set of materials is not only teachable but also fits the needs of the individual teacher's approach as well as the overall organization curriculum.

Furthermore, criteria should analyze the specific language, functions, grammar, and skills content that are covered by a particular textbook as well as the relevance of linguistic items to the prevailing socio-cultural environment. Finally, textbook evaluations should include criteria that pertain to representation of cultural and gender components in addition to the extent to which the linguistic items, subjects, content, and topics match up the students' personalities, backgrounds, needs, and interests as well as those of the teacher and/or institution (Litz, 2001: 9-10).

2.3 Reading Comprehension:

2.3.1 Definition of reading comprehension:

Many definitions have emerged concerning the reading skill due to its importance among the other skills. Thus, many specialists affirm the importance of reading; in this regard, Al-Qudah et al (2002: 109) state that of all language skills, reading is the
most necessary for independent learning. Through reading, students can gain access to further knowledge both about the language and about other subjects. Al-Drees (2008: 18) agrees with him (Al-Qudah) and states "by reading a lot, the readers can advance their English background knowledge and broaden vision, inspire their thought, build the values, train the creative performance and develop their intelligence". Accordingly, specialists and educationalists define reading comprehension as follows:

Mayer (2003: 26) points out that reading comprehension is a "technique for improving students' success in extracting useful knowledge from text". Besides, it is the ability to anticipate meaning in lines of print so that the reader is not concerned with the mechanical details but with grasping ideas from words that convey meaning (Zintx, 1978: 7). In addition, Savage and Mooney (1979: 29) say that "comprehension - the ability to derive meaning and understanding from printed language – is the communication of the act of reading. Reading is the language activity – since language is a tool of communication, and communication involves the reception as well as the expression of ideas, then the act of reading is not complete until comprehension has taken place".

Further, Miller (2002: 8) reports that "reading comprehension is the ability to understand or to get meaning from any type of written material. It is the reason for reading and the critical component of all content learning". Along with these definitions, Millrood (2011: 117) confirms that "reading is a visual and cognitive process to extract meaning from writing by understanding the written text processing information and relating it to existing experience".

The researcher concludes from the above listed definitions that reading is meant for getting meaning encoded by the writer from the text. It is an interactive skill in which the reader interacts with the text and employs his experience and previous knowledge to get the intended meaning. Besides, a reader uses his/her cognitive and meta cognitive strategies in order to make sense and to get the target message the author wants to convey.

2.3.2 Types of reading:

There are two well-known types of reading, namely intensive reading and extensive reading. Below is a detailed overview of the two types.
2.3.2.1 Intensive reading:

This type of reading includes reading shorter texts in order to extract specific information. Grellet (1996: 4) terms it as "an accuracy activity" that involves reading in detail. Bright and McGregor (1970: 80) remark, "….it is not whole lessons but parts of lessons that may properly be so divided. In the middle of a chapter, we may stop to dwell on one word. This is intensive study". In this context, Hamdan (1991) explains that the emphasis in intensive reading is on details that support the main points picked out at the skimming level.

Thus, the aim of intensive reading, according to Nuttall (1996: 68), is:

……to arrive at an understanding, not only of what the text means, but of how the meaning is produced. The "how" is an important as the "what", for the intensive lesson is intended primarily to train strategies which the student can go on to use with other texts.

Intensive reading is much effective for the developmental of the reading skills of students since "most of the reading skills are trained by studying shortish texts in detail" (Nuttall, 1996: 38). Barry (2002: 4) argues that intensive reading is more useful than extensive reading. He also advises that the students make their reading "meditative, reflective, and personal". In addition, he goes on to say that "nothing of any interest can happen in this subject ["English studies"] without close reading". He also suggested SQ3R method for the students to make intensive reading a success. (SQ3R is introduced by Robinson (1962) and it stands for Survey, Question, Reading, Reciting and Reviewing).

The researcher concludes that this type of reading leads learners to better reading in details with specific information. Thus, they may search for specific names, dates, places, or numbers.

2.3.2.2 Extensive reading:

In relation to this type of reading, many definitions have emerged in the field. Williams (1984: 10) describes it as the "relatively rapid reading of long texts". Along with this definition, extensive reading is 'essentially a private activity, and the reader dwells in his/her private world of reading for his/her own interest" (Nuttall, 1996: 142).
Furthermore, Day and Bamford (1998: xiii) define extensive reading by saying "in extensive reading, language learners read a large quantity of books and other materials that are within the learner's linguistic competence".

In this regard, Krashen (1982) argues that extensive reading is reading through which students can acquire language and improve their reading skills because they are exposed enough to comprehensible language. It should be done in a low anxiety environment. Students should be flooded with a large amount of easy reading material with little follow up or testing. It is self – selected reading. Extensive reading or reading for pleasure enables readers to acquire language unconsciously.

From these various definitions, the researcher sees that extensive reading includes reading for main ideas, reading for interest and pleasure, and it develops the learners' reading habit. It is fast reading on one's own of much longer texts.

Generally speaking, both intensive and extensive readings are important and necessary for effective reading, and they are complementary to each other. To be an effective reader, one must carry on both these two types. Williams (1986: 44) suggests that "for every hour of intensive reading, a learner should be doing at least another hour of extensive reading".

2.3.3 Requirements for effective reading:

To achieve the meaning of a text, a reader should activate his experience and background knowledge. Accordingly, a reader's knowledge, experience, and schemata play a significant role in manipulating the meaning of a text as these things are considered to be influential. Thus, efficiency of a reader relies on his pre – requisite knowledge and enough experience about facts in daily life. Further, schemata are also useful to achieve the desired meaning of the text. In the following paragraphs, requirements for effective reading will be discussed briefly.

2.3.3.1 Knowledge and experience:

Pre – requisite knowledge may accompany a reader when s/he goes to a text; otherwise, s/he may be entirely stranger to the content of the text. According to Rauch et al (1968), "having pre – experience about a text enables a reader to pursue its meaning effectively". Their argument is that "a good reader brings a variety of experiences and meanings to the printed symbol" because "the more vital experiences
one has the more opportunities he has to observe and participate in many – faceted world about him, the more meaning he will bring to the printed word”. In other words, the researcher sees that if a reader relate his/her experience to the target text, share information; the reading process will be more successful or he/she will depend only on the information the book supplies.

According to Williams (1996: 39), "the elements a reader should bring with him/her are:

- Knowledge of the writing system.
- Knowledge of the language.
- Ability to interpret.
- Appropriate knowledge of the word as assumed by the writer.
- A reason for reading that determines his style.

Through the acquired data or information, one can compare "what we read with our experience; for example, it is interesting to read about another country because we can compare it with our own, or we can imagine ourselves being there" (Doff, 1997: 181).

2.3.3.2 Schemata and reading skills:

An effective way of getting the meaning of any text may be linked to one's experience and schema. Of course people have different or multiple experiences for the same happening, but this could help them understand the meaning according to their schemata.

Nuttall (1996: 7) assures that the schema

is a mental structure. It is abstract because it does not relate to any particular experience, although it derives from all the particular experiences we have had. It is a structure because it is organized; it includes the relationships between its component parts

This means that if a reader possesses similar schemata to that of the writer, he/she will be able to interpret the text successfully and meaningfully. On contrary, a reader of weak schemata cannot understand the message of the writer. In this regard, Nuttall has illustrated this by an example. The first sentence from the example is, "the bus careered along and ended up in the hedge". In this text of a single sentence, bus schema can be sited to illustrate the idea. It is to be noted that there is no mention of
road in the text, but the reader does not face any difficulty in understanding the elaboration that the bus was running along "a road". This means that our road schema is hovering at the back of our minds in case of need; the road schema for some readers will include components such as walls, hedges, fences which mark the limit of a road" (Nuttall, 1996).

However, if the reader's road schema does not include "hedge" along the roads, s/he will be in difficulty to understand the meaning of the text, and will, perhaps, be in a puzzle where the bus actually stopped! Thus, reading makes use of our existing schemata, and if necessary, modifies it (in the above example, the reader may check and learn the word "hedge", which will add knowledge to his/her existing schemata). Moreover, all the schemata should not, and need not be recalled. In a responsive reader only the relevant schemata are activated (Rahman, 2004: 41).

To conclude, it has been discussed above that schemata of a reader help understand a text. According to Shahidullah (1996: 214), "teaching of reading concerns mainly with schema activation and schema availability". Regarding schemata, in all its faces; social, historical, cultural, or religious, it help one to receive the message of a text properly.

2.4 The concept of Higher Order Thinking Skills (HOTS)

2.4.1 Definition of (HOTS):

In fact, various definitions of the term HOTS were provided by several specialists who are interested in the field. Consider the following:

HOTS involves the transformation of information and ideas. This transformation occurs when students analyze, combine facts and ideas and synthesize, generalize, explain, or arrive of some conclusion or interpretation. Manipulating information and ideas through these processes allows students to solve problems, gain understanding and discover new meaning (Tomei, 2005).

McDavitt (1993: 20) says that "Higher Order Skills include analysis, synthesis, and evaluation and require mastery of previous levels, such as applying routine rules to familiar or novel problems". In addition, (McDade, 1995: 10) defines HOTS as …

The intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by observation, experience, reflection, reasoning, or communication as a rubric to belief and action.
Additionally, higher order thinking skills are described as understanding of facts, concepts, principles, and procedures (Haladyna, 1997). Analysis, synthesis, and evaluation (Bloom, 1956).

Higher order thinking are also called "critical" or "strategic" thinking, it can be described as the ability to use information to solve problems, analyze arguments, negotiate issues or make predictions (Underbakke, Borg, and Peterson, 1993, Wenglinsky, 2002). It involves examining assumptions and values, evaluating evidence, and assessing conclusions (Petress, 2005).

From the above listed definitions of HOTS, the researcher concludes that HOTS are intellectual processes where students have to activate their minds in order to understand the hidden meaning from the information introduced to them, realize the relations among ideas, draw principles and rules, analyze and classify, generate and combine new ideas, evaluate and judge.

2.4.2 Higher order thinking taxonomy:

One of the most well-known taxonomies in education is Bloom's. It offers a basic model of thinking skills which is adopted by several researchers for their studies' purposes. Bloom's taxonomy focuses on six levels of thinking that students practice while learning or acquiring knowledge. Most importantly, Bloom's and his colleagues' initial attention was focused on the cognitive domain which was the first published part of Bloom's taxonomy, featured in the publication: "Taxonomy of Educational Objectives: Handbook 1, the cognitive domain" (Bloom, Engelhart, Furst, Hill, Krathwohl, 1956). Moreover, the Taxonomy of Educational Objectives: Handbook II, the affective domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes (Krathwohl, Bloom, Masia, 1973). The psychomotor domain, is the third domain of Bloom's taxonomy, it includes physical movement, coordination, and use of the motor-skill areas (Simpson, 1972).

Pickard, M (2007:21) comments on saying:

Bloom's taxonomy contains three overlapping domains: the cognitive, affective and psychomotor. The taxonomy is a means to express qualitatively the different kinds of intellectual skills and abilities. The cognitive and affective domains provided a way to organize thinking skills into six levels, from the most basic to levels that are more complex.
As the cognitive domain is the main concern in this study, it will be discussed below in details with an illustrative examples.

2.4.2.1 The cognitive domain:

As mentioned earlier, the cognitive domain (Bloom, 1956) involves knowledge and the development of intellectual skills. It also includes the six major categories; knowledge, comprehension, application, analysis, synthesis and evaluation. It's noticeable that the categories start from simple ones moving up to more complex ones which imply that one cannot master the higher levels before mastering the lower ones. The six categories are shown in Figure (2.1) below:

![Figure (2.1)](image_url)

**Bloom's Taxonomy and the Revised Bloom's Taxonomy**

Specifically, each category with its example as well as its key words will be shown in Table (2.1) according to Bloom (1956).
<table>
<thead>
<tr>
<th>Category</th>
<th>Example and key words (Verbs)</th>
</tr>
</thead>
</table>
| **Knowledge**:    | Examples: List the names of the main characters in the story.  
**Key words**: defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states. |
| **Comprehension**:| Examples: What was the main idea of the story?  
**Key words**: comprehends, converts, distinguishes, estimates, explains, gives an example, interprets, paraphrases, rewrites. |
| **Application**:  | Examples: Using what you know about the structure of the stories read in class, write a new story of your own.  
**Key words**: applies, changes, computes, demonstrates, discovers, manipulates, operates, predicts, prepares, relates, shows, solves, uses. |
| **Analysis**:     | Examples: Break the story down into its separate parts, describing how they relate.  
**Key words**: analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates. |
| **Synthesis**:    | Examples: By combining these two stories about whales, what would you predict about the future of the whale population on earth?  
**Key words**: categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes. |
| **Evaluation**:   | Examples: Is this a well written story, in your opinion? Why?  
**Key words**: appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, justifies, relates, |
<table>
<thead>
<tr>
<th>Categories and cognitive processes</th>
<th>Alternative names</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-differentiating</td>
<td>discriminating,</td>
<td>-distinguishing relevant or important from irrelevant or unimportant parts of presented material.</td>
</tr>
<tr>
<td></td>
<td>distinguishing,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>focusing</td>
<td></td>
</tr>
<tr>
<td>2-Organizing</td>
<td>finding coherence,</td>
<td>-Determining how elements fit or function within a structure.</td>
</tr>
<tr>
<td></td>
<td>integrating,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>outlining,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>deconstructing</td>
<td></td>
</tr>
<tr>
<td>3-Attributing</td>
<td>deconstructing</td>
<td>-Determine a point of view, bias, values, or internet underlying presented material.</td>
</tr>
<tr>
<td>Evaluate:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Checking</td>
<td>coordinating,</td>
<td>-detecting inconsistencies within a process or product; detecting the effectiveness of a procedure as it is being implemented.</td>
</tr>
<tr>
<td></td>
<td>detecting,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>monitoring,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>testing.</td>
<td></td>
</tr>
<tr>
<td>2-Critiquing</td>
<td>judging</td>
<td>-detecting inconsistencies between a product and external criteria; detecting the appropriateness of a procedure for a given problem.</td>
</tr>
<tr>
<td>Create:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Generating</td>
<td>hypothesizing</td>
<td>-coming up with alternative hypotheses based on criteria.</td>
</tr>
<tr>
<td>2-Planning</td>
<td>designing</td>
<td>- devising a procedure for accomplishing some task.</td>
</tr>
<tr>
<td>3-Producing</td>
<td>constructing</td>
<td>-inventing a product.</td>
</tr>
</tbody>
</table>

From the above mentioned table, it appears that the categories can be thought of as degrees of difficulties in thinking and learning process. That is, the lower ones must be normally mastered before the higher ones can take place.
In the mid–nineties Lorin Anderson, a former student of Bloom revised the cognitive domain in the learning taxonomy and made some changes; the two most prominent ones are: 1- changing the names in the six categories from noun to verb forms, and 2- slightly rearranging them (Phol, 2000). This new taxonomy, as appears in figure (2.2), reflects a more active form of thinking and is perhaps more accurate.

**Figure (2.2)**

**Revised Bloom's Taxonomy**

<table>
<thead>
<tr>
<th>Original domain</th>
<th>New domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Creating</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Evaluating</td>
</tr>
<tr>
<td>Analysis</td>
<td>Analyzing</td>
</tr>
<tr>
<td>Application</td>
<td>Applying</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Understanding</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Remembering</td>
</tr>
</tbody>
</table>

However, The modifications which were done by Lorin Anderson do not change the core of the Bloom's cognitive levels. All evolve around the same cognitive thinking skills.
2.4.3 Concepts that are related to HOTS:

Various major concepts relevant to the HOTS are to be introduced in the following paragraphs based on three assumptions about thinking and learning: First, the levels of thinking cannot be unmeshed from the levels of learning; they involve interdependent, multiple components and levels. Second, whether or not thinking can be learned without subject matter content is only a theoretical point. In real life, students will learn content in both community and school experiences, no matter what theorists conclude, and the concepts and vocabulary they learn in the prior year will help them learn both higher order thinking skills and new content in the coming year. Third, higher order thinking involves a variety of thinking processes applied to complex situations and having multiple variables (Goodson, L and Rohani, F: n.d-11). Nevertheless, training is a necessity for developing higher order thinking. Intelligent people may achieve a certain level of it by one's self effort but they can do better if they receive training. On the other hand, people who are less intelligent are in agitating need to be trained on higher order thinking skills; otherwise, they stay at the low thinking level, particularly, memorization.

2.4.3.1 Meta cognition and HOTS:

It refers to the deliberate conscious control of one's own cognitive activity. According to Brown (1978) using meta cognition requires two sets of related skills.

First, one must understand what skills, strategies and resources a task requires. Second, one must know how and when to use these skills and strategies to ensure that the task is completed successfully. Thus, one's success with meta cognition depends, in part, on a belief in one's ability to get smarter as well as the beliefs of others, such as teachers, in one's ability (Crowl et al., 1997). Meta cognition is a basic skill that enables an individual to achieve a higher order thinking activity successfully.

2.4.3.2 Procedural knowledge and HOTS:

It means how to do something, methods of inquiry and criteria for using skills, algorithms, techniques, and methods (Pickard, 2007: 49). It appears as a type of knowledge and a prerequisite for higher order thinking since it includes methods of inquiry and criteria for using these skills. In addition, the ability to recite a rule or a set of procedures is "information learning"; the ability to apply a rule or procedure to a routine single – variable situation is "application".
Procedural knowledge sometimes referred to or misunderstood as a higher order thinking skill. On the contrary, neither of these capabilities (reciting and application) involve higher order thinking. Instead, applications of procedural knowledge that also involve analysis and synthesis of two or more concepts would be considered higher order thinking. Examples include:

- constructing map projections and grids,
- writing clear and concise case reports,
- calculating the fixed overhead costs for a project,
- designing spread sheets,
- drawing conclusions about the impact of social reform on the universality of social programs,
- and establishing meaningful relationships with coworkers (Huot, 1995:2).

2.4.3.3 Comprehension and HOTS:

Comprehension is a part from Bloom's taxonomy. It's considered to be one of the lower order skills, but is integral to HOTS development. While it's an important prerequisite, it is not a higher order thinking skill. Comprehension remains the process by which individuals construct meaning from information and form new "schemata" through specific activities (Crowl et al., 1997), including, but not limited to,

- generating and answering questions that demand higher order thinking about old and new ideas,
- confronting conflicting ideas and information, problems, or dilemmas,
- exploring and making discoveries,
- conducting systematic inquiries,
- summarizing, reciting, and discussing new ideas and their relationships,
- relating new understandings to other concepts,
- applying new ideas and information in basic problem-solving activities, or
- reflecting and verbalizing about cognitive processes involved in comprehension.

2.4.3.4 Creativity and HOTS:

Basically, creativity do not refer to higher order thinking explicitly, it cannot be unmeshed from the process. It is necessary for generating new ideas and solutions for problems that go beyond previously learned concepts and rules. Its place in the network of higher order thinking skills was well articulated in Pasteur's observation that "chance favors only the prepared mind" because "only a trained mind can make
connection between unrelated events, recognize meaning in a serendipitous event”, and produce a solution that is both novel and suitable (cited in Crowl et al., 1997: 192-193).

**Common characteristics of creativity are listed below:**

Some educators confirm that there are some well-known characteristics of creativity, they will be listed below.

- Creativity involves selecting the relevant aspects of a problem and putting pieces together into a coherent system that integrates the new information with what a person already knows (Stenberg and Davidson, 1995). In a basic sense, it involves a series of decision – making choices between "two or more competing alternatives of action", each having "several pros and cons associated with it".
- Creativity involves discovering and solving problems. Innovative approaches are used to accurately evaluate short coming, and actions are taken to remedy those weaknesses.
- Creativity overlaps with other characteristics, such as "intelligence, academic ability, dependability, adaptiveness, and independence' and can 'evolve within each of the seven intelligences".
- It requires many of the same conditions for learning as other higher order thinking skills. The learning processes are enhanced by supportive environments and deteriorate with fears, insecurities, and low – self esteem. It deteriorates with extrinsic motivation, restraint on choice, and the pressure of outside evaluation (Crowl et al., 1997:169 – 196).

**2.4.3.5 Intelligence and HOTS:**

What is meant by intelligence is not the general ability of learning. It refers to seven types of abilities or intelligences including linguistic – verbal, logical – mathematical, spatial, musical, bodily – kinesthetic, interpersonal, and intrapersonal abilities. Each person has some of them, but not all. Actually, it's possible for one to develop any of the types through training, education, and life experience. In this regard, Gardner (1983) asserts that each person is able to develop each intelligence and that some of the intelligences will be more developed than others. Thus, each
person can develop his / her intelligences through education especially when there is training at early ages. Therefore, intelligence is:

- No longer limited to the idea of a single ability or global capacity to learn, adapt, and think rationally;
- Inclusive in its general and specific abilities to embrace general knowledge, comprehension, thinking, and problem solving;
- Multidimensional in mental processes involving convergent and divergent thinking; multilevel, including linguistic – verbal, logical – mathematical, spatial, musical, bodily – kinesthetic, interpersonal, and intrapersonal abilities that influence one's approaches to problem solving and thinking (Kauchak and Eggen, 1998; Kirby and Kuykendall, 1991).

The relation between intelligences and higher order thinking skills is interactive. That is, to practice any higher order thinking skills, an individual is in need of more than one intelligence. For example, producing a speech to be addressed to a certain audience is a synthesis cognitive skill where a speaker is in need of utilizing logical, verbal, linguistic, interpersonal, intrapersonal and bodily abilities.

2.4.3.6 Critical thinking and HOTS:

After reviewing some definitions of what critical thinking is, it appears that this term "critical thinking" and HOTS are interrelated to some extent. Both require high intellectual processes and cultivation of one's mind so that one could be an active respondent to information not just memorize it.

According to Jones (1989:13), many educators believe that critical thinking is the single most important cognitive skill. He defines it as "Reflective and reasonable thinking that is focused on deciding what to believe or do". To him, it involves:

1. ability to define and clarify such things as problems, issues, conclusions, reasons, assumptions,
2. ability to judge the credibility, relevance and consistency of information, and
3. ability to infer or to solve problems and draw reasonable conclusion.

Thus, core critical thinking skills are listed in Table (2.3) below:
Table (2.3)

Core Critical Thinking Skills

<table>
<thead>
<tr>
<th>Skill</th>
<th>Experts' consensus description</th>
<th>Sub skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation</td>
<td>&quot;To comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, beliefs, rules, procedures, or criteria&quot;.</td>
<td>Categorize&lt;br&gt;Decode&lt;br&gt;significance.&lt;br&gt;Clarity meaning.</td>
</tr>
<tr>
<td>Analysis</td>
<td>&quot;To judge the intended and actual inferential relationships among statements, questions, concepts, descriptions, or other forms of representation intended to express beliefs, judgments, experiences, reasons, information, or options.&quot;</td>
<td>Examine ideas.&lt;br&gt;Identify arguments.&lt;br&gt;Identify reasons and claims.</td>
</tr>
<tr>
<td>Inference</td>
<td>&quot;To identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses, to consider relevant information and to deduce the consequences following from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, or other forms of representation&quot;.</td>
<td>Query evidence.&lt;br&gt;Conjecture alternatives.&lt;br&gt;Draw conclusions using inductive or deductive reasoning.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>&quot;To assess the credibility of statements or other representations that are accounts or descriptions of a person's perception, experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions, or other forms of representation&quot;.</td>
<td>Assess credibility of claims.&lt;br&gt;Assess quality of arguments that were made using inductive or deductive reasoning.</td>
</tr>
<tr>
<td>Explanation</td>
<td>&quot;To state and to justify that reasoning in terms of the evidential, conceptual, methodological, and contextual considerations upon which one's results were based; and to present one's reasoning in the form of arguments&quot;.</td>
<td>State results.&lt;br&gt;Justify procedures.&lt;br&gt;Present arguments.</td>
</tr>
<tr>
<td>Self – Regulation</td>
<td>&quot;Self – consciously to monitor one's cognitive activities, the elements used in those activities, and the results deduced, particularly by applying skills in analysis, and evaluation to one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results&quot;.</td>
<td>Self – monitor.&lt;br&gt;Self – correct.</td>
</tr>
</tbody>
</table>


2.4.4 Strategies of HOTS:

Readers usually use HOTS strategies to improve their abilities in thinking. Thus, good readers use higher order thinking strategies to think about, and control their reading before, during, and after reading a selection. In addition, students who do not use
HOTS are usually low achievers in reading (Marier, 2000). Although there are many strategies of HOTS, following is a brief discussion about four of these strategies.

2.4.4.1 Questioning in reading activities:

Questioning as a strategy can develop levels of thinking skills for deeper learning and more understanding. It helps students to prepare for reading and to understand while reading (Hendricks et al., 1996). Questioning can be facilitated with the Directed Reading – Thinking Activities Approach (DRTA) described by Haggard (1985, as cited in Hendricks et al, 1996), whereby the teacher reads a text with students, stops at intervals, and asks questions. Students discuss their answers in a whole–class activity in order to have a better understanding of what they are reading. A Question – Answer Relationship (QAR) technique proposed by Raphael (1984) has been linked to improved students’ reading comprehension after reading (Sorrell, 1990 as cited in Kelly, 1999; Spivey, 2000). Thus, by using the student generated questioning strategy, text segments are integrated and thereby improve reading comprehension (Oczkus, 2003:24).

2.4.4.2 Inferring

Inferring is to some extent related to reading between lines. Students need to use their own knowledge along with information from the text to draw their own conclusions (Serafini, 2004). Through it, students will be able to draw conclusions, make predictions, identify underlying themes, use information to create meaning from the text and use pictures to create meaning (Harvey and Goudvis, 2000:33 – 40). Besides, students can be taught to use illustrations, graphs, and titles from the text to make inferences.

2.4.4.3 Summarizing

This process requires from students awareness of what is important to be paraphrased and summarized. Alder (2001) states that the process of summarization requires the reader to determine what is important while reading and to paraphrase the information in the readers own words. Accordingly, teacher modeling and student practice of the summarization process has proven its effectiveness in improving students' ability to summarize text and text comprehension as well. Students can be taught to identify main ideas, connect the main ideas, eliminate redundant and unnecessary information,
and remember what they read with the summarization strategy (Abu Nejmeh, 2011: 9).

### 2.4.4.5 Prediction

Prediction as a strategy for improving comprehension "helps the reader set a purpose for their reading" (Mcknown and Barnett, 2007:17). Additionally, Pesa and Somers (2007:31) expand that before reading, prediction can "activate prior knowledge, set a purpose for reading, and engage the reader from the outset". Introducing the title of the reading, pictures associated with its content, and key words can prompt prediction (Mcknown and Barnett, 2007). During reading, Pesa and Somers (2007) assert that prediction can help students monitor their comprehension and continued interest. Block and Israel (2005 as cited in Mcknown and Barnett, 2007:18) agree that "good readers use their experiences and knowledge to make predictions and formulate ideas as they read". Further, students can compare their predictions with information in the actual text (Mcknown and Barnett, 2007). The importance of students revising their predictions when necessary is highlighted by Teele (2004, as cited in Mcknown and Barnett, 2007), who links this to improved reading comprehension.

Teachers who read aloud in class can guide students' predictions with questions. Oczkus (2003) emphasizes that "this strategy also allows for more student interaction, which increases student interest and improves their understanding of the text". After reading, this strategy can "help students to interpret, analyze, and deepen their understanding" (Pesa and Somers, 2007:32).

### 2.4.5 Why thinking in schools?

What educators need to ask is: of what value is emphasizing thinking in schools especially at the elementary level? Beyth – Marom et al. (1987:216) underscore the need to enhance the teaching of thinking in schools when they state that "Thinking skills are necessary tools in a society characterized by rapid change, many alternatives of actions, and numerous individual and collective choices and decisions". As societies move from receiving information to processing information there is the need for schools to increase the students' capability to acquire, analyze, and apply complex information and be able to solve problems effectively (Tucker, 1988). In addition, Beyer (1995:28) quoting the third president of the United States wrote, "A democracy
cannot survive unthinking citizens”. Teaching thinking prepares students to participate fully in a democratic society.

Accordingly, in a democratic and ever changing world citizens need to have the ability to make meaningful judgments about issues and information which are personal, social, economic, and political in nature (Owu – Ewie, 2008:43). Further, Beyer (1988) gives four reasons for the development of school – wide instructional programs to improve student thinking. First, a greater number of students lack the proficiency needed to engage in higher order thinking. Second, the present state of affairs today and in the future (rapid explosion of information) requires citizens who possess the skills to make thoughtful decisions. This can be achieved through education. Third, the enhancement of thinking in schools is a response to the complaints about deficiencies in students' thinking. Fourth, research in teaching, learning skills, and cognitive science has indicated that inappropriate teaching methods are used to teach thinking.

Thus, training learners to be good thinkers is fruitful to the individual and the society as well. It improves students' academic performance and achievement. Facione (1988:11) points out that "There is significant correlation between critical thinking and reading comprehension”. He also notes that thinking is a liberating force in education and a powerful resource in one's personal and civic life. Moreover, Fisher (1998) from a philosophical point of view argues that the quality of our lives depends on the quality of our thinking. Fisher; therefore, claims that we teach thinking because of the pleasure gained from intellectual stimulus and challenges, it motivates and engages learners, and it promotes moral qualities and virtues. Fisher adds that teaching children thinking is a fulfillment of human nature, develops the virtues of seeking truth, honesty and respect for others, and strengthens the basic foundations of democracy.

2.4.6 Approaches to teaching thinking:

Through the complex nature of thinking that demands great efforts in promoting it among learners, the schools, teachers, parents, and teacher institutions should help nurture thinking skills among learners to enhance their thinking in the learning process. Kirby and Kuykendall (1991) note that in spite of the general acceptance that thinking skills should be taught in schools, there is no consensus on the means.
Coles (1993) says that there "is no single approach to teaching thinking. The contention has been on whether teaching thinking should be eradicated from or infused in the curriculum". According to Swartz and Parks (1994), the argument has centered on three main principles: direct / explicit teaching of thinking skills, infusing thinking skills into classroom teaching, and integrating thinking into content instruction. The researcher thinks that all of the three approaches are useful. To illustrate, explicit teaching of thinking skills helps learners acquire systematic knowledge of thinking strategies. Besides, infusing thinking skills into classroom teaching is necessary as it activates students' role in teaching thinking skills and deepens their knowledge. So, intentionally or not intentionally, they transmit practicing thinking habits and strategies to students. Finally, integrating thinking into content instruction acts as a resource for both teachers and students which provide them with means of practicing thinking.

2.4.6.1 Separate thinking courses:

Those who argue for the teaching of thinking as any subject on the school curriculum prefer a direct instruction in thinking where skills or strategies that enhance thinking can be taught. This school of thought argues that all thinking is evaluated by some standards of some specific subjects (McPeck, 1981) and that each subject has its different logic (Nickerson, 1988). Hamer and Csapo (1999) refer to this as domain-specific. McPeck argues that the best way to teach thinking is through a given discipline. He is of the view that thinking cannot be properly generalized to all subject areas because one skill cannot be applied generally across other subject areas. McPeck's view implies that it is not enough for learners to learn the content of a discipline but must also learn to think in that subject. Therefore, teachers need to identify the needed skills (reasoning) that are appropriate for teaching those skills.

Teachers who teach thinking using this ideology go in for thinking programs which adopt a "skill approach"; analyze the process of thinking into skills and strategies, and provide training and practice for learners to transfer (Nisbet, 1993). Thus, this approach gives guided practice in applying skills and techniques (Coles, 1993).

On contrary, Coles notes that such approach will bring tension between teaching thinking and dealing with the direct topics. Joyce (1985) thinks this may make the teaching of thinking disappear gradually from the curriculum.
In the researcher's point of view, this approach has the advantage of giving an in-depth study of thinking which helps promote these skills in the learning process. On the other hand, this approach may be a waste of time through the repetition of the introductory courses in thinking in all disciplines.

2.4.6.2 Infusion approach:

This approach involves the teaching of thinking as part of the subjects in the curriculum. Thinking is not seen as independent of the various disciplines in the school; accordingly, the proponents of this ideology believe that thinking is virtually in all disciplines. It is referred to as domain – general by Haner and Csapo (1999). Additionally, Bransford et al. (1987) see this approach as portraying thinking as something which develops along human development.

Infusion approach argues for a "thinking curriculum" which promotes thinking by means of "problem solving approach" with emphasis on application and integration (Nisbet,1993). According to Swarts and Parks (1994), this approach of teaching thinking is based on the natural fusion of information. Further, the infusion approach acknowledges the importance of cognitive operations in the context subject matter in the instruction process and also students learn subject matter while still focusing on cognitive procedure to develop new insights, connections, hypotheses, conclusions, or generalization (Beyer,1997). Specifically, Ennis (1985) sees that this approach avoids repetition of introductory principles in each subject and encourages the application of cognitive skills to other disciplines. All in all, if care is not taken in applying this approach, little emphasis will be given to thinking especially in the hands of the inexperienced teachers.

2.4.6.3 Immersion Approach:

This approach comes as alternative to the infusion approach. Ennis (1985) defines immersion approach as a thought – provoking content instruction in which there is no direct teaching of complex thinking. Beyer (1997) says that in this approach of blending thinking and subject matter, there is concentration and emphasis on developing subject matter insights, knowledge, and understanding. Thinking in this approach is not explicitly taught but students think through the subject matter. Brandt (1988) in an interview with Arthur Costa, the editor of Developing Minds, asserted from Costa that teaching content alone and thinking students will learn to think gives
disappointing results and the same will happen if thinking skills are taught in isolation. According to Costa, the best approach is to blend the two approaches by selecting content for its relationship to thought processes; further, the proponents of this approach "believe it is the challenge or struggle to carry out thinking and repeated opportunities to exercise it that lead to more skilled thinking (Beyer,1997). Moreover, one characteristic of this approach is the attention paid to the subject matter and the chance where students think deeply.

There is an argument about the categorization of this approach. Paul et al. (1989 favor the Socratic dialogue approach which they call "dialectical teaching". Thus, it is like the eclectic approach which bridges the tension between the two approaches but the believers of the two approaches seem to criticize it. Nickerson (1988:34) believes that for effective teaching of thinking, the two main approaches must be combined to some degree. Besides, he notes that:

> It is important to treat the skills, strategies, attitudes, and other targeted aspects of thinking in such a way that students come to understand their independence from specific domains and their applicability to many… it seems equally important to demonstrate their application in meaningful contexts so students witness their genuine usefulness.

To support his view, he says that if the teaching of thinking is to be useful to learners in a variety of context, then students should be made aware of the generality of its applicability which is true independently of the context of the teaching. All in all, these approaches tend to be good in general but their effectiveness in schools depends primarily on the classroom teacher.

### 2.4.7 Enhancing thinking skills of learners:

Attention of how to teach thinking to learners should be devoted due to its importance. There are a few articles which have made meaningful suggestions on how to enhance thinking skills of learners. In fact, our learners need someone who urges them to think; someone who really plays an essential role in developing the thinking skills of learners. Accordingly, the teachers, parents, the learners, and teacher institutions are playing a significant role in enhancing such skills of learners.
2.4.7.1 Role of teachers

The success of any program relies heavily on the teachers. The centre for critical thinking (1996) suggests that teachers should let their students be aware of what they are in for the first day they attend classes, teachers should speak less in class, develop specific strategies for cultivating thinking, use concrete examples in class, regularly question students, and break class down frequently into small groups to work on specific tasks. Additionally, the centre adds that teachers should think aloud in front of the students and present concepts in context of their use. Thus, this may be a very useful way of how to teach students to think without noting that. Besides, Cotton (2001) suggests that teachers should use various instructional approaches to enhance thinking skills. He, for example, says that the use of probing questions, redirection on and reinforcement increases students' content knowledge and enhance the development of thinking skills. Moreover, he says that teachers should use higher order questions in the classroom and also have enough waiting time for students to respond to a question. Thus, teachers should know that students have the capacity to think and learn if they are trained enough by their teachers; therefore, it is the responsibility of teachers to expand and strengthen students' thinking by urging them to use their background knowledge in their current situations.

To support this idea, Collins (1993) states that in enhancing critical and creative thinking (higher order thinking skills), the teacher must be a model. He must practice the thinking skills in the teaching process. Accordingly, he must provide opportunities for students to select activities from a range of appropriate choices, seek imaginative, appropriate, and ethical solutions to problems, exhibit genuine interest, curiosity and commitment to learning (Owu – Ewie, 2008:71).

Further, Collins suggests that teachers can enhance critical and creative thinking by involving students in role plays / simulations, using "structured controversy", encouraging students to recognize contradictions, asking divergent questions, asking students to analyze the content of materials / texts, and asking students to defend their assertions with reason. Thus, teachers ought to eradicate negative attitudes about thinking from students' minds and replace it with a positive one that may help nurture the creative thinking in learners' minds. Harris (1998) lists the following as positive attitudes that teachers should promote in their students: curiosity, constructive
discontent, the belief that problems can be solved, the ability to suspend judgment and criticism, see good in the bad, problems lead to improvement, and a problem can be solved.

In the teaching process, teachers should structure learning tasks around problem solving, decision making, or conceptualizing which show students opportunities on how to use thinking skill (Beyer, 1987). Specifically, in this process, students are to show their view points, provide evidence, and take correct decisions in the light of their arguments. This makes students feel self confident to some extent and be able to respond to challenges to different points of views put forward; identify and examine the underlying assumptions and examine their consistency. Though this is a student–centered process that offers the teacher the opportunity to interpret the process to see how students are using the important thinking skills they have learnt in the execution of a problem or task (Beyer, 1987).

To conclude, teachers have an essential role in enhancing students' thinking skills by asking questions that do not have direct answers, encourage them to feel free when asking additional questions, and encourage them to express their opinions in addition to showing respect when listening to others' points of view.

2.4.7.2 Role of parents:

Another reason behind enhancing thinking skills is the parental involvement. It is crucial to mention that the environment which the child is born in plays a pivotal role in developing the child's personality. In addition, parents should have positive attitudes to enhance thinking skills among learners. Specifically, parents, at home, should engage their kids in giving reasons for their choices and actions and give them the freedom to express their points of view in a way that they feel responsible for such actions. Besides, Lopes (1995) in talking about how to help kids grow creatively, suggests that parents should relax controls which diminish self – confidence, it is not always critical to have the correct answer to a problem, inspire perseverance, provide creative atmosphere, and offer but not to pressure kids. Thus, encouragement from parents promotes kids' interest in thinking.
2.4.7.3 Role of school:

In addition to the parental role in enhancing thinking skills, the school has also a major role to play in enhancing these skills among learners but according to Perkins (1990), schools do not serve this interest very well. He adds that schools should promote the intrinsic motivation of learners; additionally, schools need to appreciate teaching and learning of thinking skills by awarding prizes to teachers and students engaged in thinking skills activities. By doing so, the school provides an ecosystem that nurtures, supports, and honors skillful thinking (Beyer,1988). The school also should provide staff development as teaching thinking skills do not come readily to all teachers. Beyer (1988) is of the opinion that considerable staff development has to be undertaken to carry a thinking skills program from curriculum guide into effective student learning. Thus, providing continuous staff development help schools to be aware of the modern trends in teaching skills and applying them in the teaching process.

2.4.7.4 Teacher training institutions:

Enhancing thinking in learners by incorporating the teaching of thinking skills in the teacher education curriculum is the role that should be played by teacher institutions. Cotton (2001) for example affirms that training teachers to teach thinking skills (critical and creative thinking) leads to student achievement gains. He adds that teacher training is the key factor to most successful thinking programs.

Moreover, Crump, Schlichter, and Palk (1988) have identified that there is positive relationship between teacher training and student achievement. According to Beyer (1988), to develop proficiency in the strategies and skills used in the teaching of thinking skills, a teacher training program must include the following elements: provide education through lectures, reading, and discussion in the theories and research upon which they are based, demonstrate constantly how these strategies work, offer repeated practice and observation in the use of these strategies and skills, and provide coaching. The teaching of thinking skills in schools will be enhanced when there are qualified teachers to handle them effectively in the classroom; further, Stuart (1999:24) in a comparative analysis study in primary teacher education identified that tutors do not use appropriate methods that enhance thinking skills. She states "It is quite rare for tutors to get professional development designed to help
them. Most stumble into and train in the way they were trained – sometimes using their university notes of fifteen years ago”.

To improve the performance of learners on thinking skills tests, pre – service teachers institutions must improve teacher training. Hence, teacher training institutions must teach cognitive skills to pre – service teachers before training them to teach thinking skills in the classroom (Ashton, 1988). Finally, teacher institutions need to incorporate thinking skills into all aspects of teacher preparation and train future teachers to be models of effective thinking strategies (Walsh & Paul, 1988).

2.4.7.5 The role of learners:

Learners play the major role in the thinking process. They have to show positive attitudes in class especially where discussions are the most dominant activity. Thus, they have to cultivate their minds towards creative and critical thinking. Accordingly, Wilks (1995) suggests the following as some of the things learners should do in a discussion group to enhance thinking skills: not to yell or call out, concentrate on what others are saying, be tolerant, and say what they think and feel freely. Learners must ask questions for clarification, listen attentively, make sound judgment, think before they respond to a question or comment, weigh the implications of what they say, give reasons for what they say or do, learn to practice thinking skills learnt, and learn to take risks. Harris (1998) suggests that learners should do away with negative attitudes that block how they will use the creative and critical thinking they have learnt. These negative attitudes according to Harris include using expressions like "Oh no, a problem!, it can't be done, I can do it, but I am not creative or critical thinker, I might fail". Therefore, learners should develop positive attitudes like curiosity, see the good in the bad and believe that most of the problems can be solved. Harris adds the following as good attitudes: perseverance, flexibility, imagination, and knowing that mistakes are unavoidable.

2.4.8 Factors that inhibit thinking:

Throughout the researcher's experience in schools, she noticed that the teaching of thinking skills is not well treated or rather neglected. This may be ascribed to many reasons such as the lack of experience among the teachers themselves to teach these skills, the overload curriculum, or that the time allotted does not allow for more questions. Specifically, Bayer (1988) for example, identifies five factors that inhibit
the teaching of thinking skills in schools. These factors include inappropriate teaching methods employed by teachers, ineffective testing procedures used by both teachers and testing companies which fail to support and reinforce the development of thinking skills among learners, and serve overload of skills in the curriculum. The others are lack of consensus among educators on which thinking operations are essential and worth teaching, and the inability of teachers, test makers, material developers, and curriculum designers to identify the essential thinking operations to select for teaching.

Additionally, Owu – Ewie (2008:78) asserts that educational policies negatively influence the teaching of thinking skills in schools. Thus, most educational policies emphasize standards and teachers accountability; accordingly, there is an increased prevalence of standards, high – stake testing, and outcome assessment (Ward &Mc cotter, 2004). This implies that the main focus is on testing rather than helping students to be creative thinkers in the learning process. Furthermore, the culture of the school does not support the teaching of thinking in schools. Leat (1999:293) comments on saying: "The school culture may offer some encouragement [to teaching of thinking skills] but it is often not wholly supportive, given other pressures". In addition to the above, schools kill the intrinsic motivation by engaging in practices like emphasis on heavy grading, minimal informative feedback, lack of choice of activities, and constant scrutiny of work (Perkins, 1990). Thus, it appears that schools do not encourage the teaching of thinking skills; therefore, they must change this view into another positive one that enhances and supports the thinking skills.

Gardner’s theory, which regards intelligence as having seven dimensions, has been receiving recent attention related to teaching (Kauchak & Eggen, 1998). Schools are shifting curricula and teaching methods to accommodate the diverse abilities and talents of students (Crowl et al., 1997). Teachers may have a greater impact by creating lessons that “use the various types of intelligence in classroom activities” (p. 187).

### 2.4.9 Theories related to learning and higher order thinking skills

Thinking is mental processes which leads individual to clear obscurities, settle confusion, answer questions, define problems, describe items, recall information, analyze, combine and synthesize, evaluate and judge, make decisions and assign
goals. Each one has his / her own thinking strategies; how to approach a problem, how to analyze a matter or how to combine ideas to produce something new. Moreover, the differences in thinking strategies are ascribed to age, level of education, experience, and culture. Research has produced many theories which defined thinking development; thus, some of the outstanding names in the field are Piaget, Bruner, Bloom, and Gange.

2.4.9.1 Piaget

According to Piaget, the developmental stages are the key to cognitive development. School – age and adolescent children develop operational thinking and the logical and systematic manipulation of symbols. As adolescents move into adulthood, they develop skills such as logical use of symbols related to abstract concepts, scientific reasoning, and hypothesis testing. These skills are the foundations for problem solving, self – reflection, and critical reasoning (Crowl et al., 1997; Miles, 1992).

2.4.9.2 Bruner

According to Bruner, learning processes involve active inquiry and discovery, inductive reasoning, and intrinsic motivation. Stages of cognitive development are not linear; they may occur simultaneously. Bruner introduced the "spiral curriculum" in which learners return to previously covered topics within the context of new information learned. Both Piaget and Bruner focus on active learning, active inquiry and discovery, inductive reasoning, intrinsic motivation, and linkage of previously learned concepts and information to new learning. Stages include enactive (hands – on participation), iconic (visual representations), and symbolic (symbols, including math and science symbols) (Crowl et al., 1997).

2.4.9.3 Bloom

In each of Bloom's three taxonomies (cognitive, affective, and psychomotor), lower levels provide a base for higher levels of learning (Bloom, 1956; Kauchak and Eggen, 1998). Comprehension and application form linkages to higher order skills; here, the learner uses meaningful information such as abstractions, formulas, equations, or algorithms in new application in new situations. Higher order skills include analysis, synthesis, and evaluation and require mastery of previous levels, such as applying routine rules to familiar or novel problems (McDavitt, 1993). It
involves breaking down complex material into parts, detecting relationships, combining new and familiar information creatively within limits set by the context, and combining and using all previous levels in evaluating or making judgment. There also appears to be some interaction across taxonomies.

2.4.9.4 Gange

According to Gange, intellectual skills begin with establishing a hierarchy according to skill complexity. Within this structure, discriminations are prerequisites for concrete and defined concepts, simple rules, complex higher order rules, and then problem solving. Cognitive strategies may be simple or complex (Gange, 1985; Briggs and Wager, 1981; Gange, Briggs, and Wager, 1988). Attitudes and motor skills, related varieties of learning, may involve lower as well as higher order thinking – spanning from a simple application of a tool to a complex systems analysis and evaluation. Bloom (1956) and Gange and Briggs (1974) allow for greater possibilities of teaching complex skills to younger learners and the possibility that learners can be "young" at any age, starting at lower levels and connecting to higher levels of thinking.

In conclusion, what is common among the theories is that thinking and learning are developmental processes that move from low to high. The highest cognitive skill cannot be achieved without recalling needed information, comprehending, analyzing, evaluating, and creating.

2.5 English for Palestine Grade Eight

2.5.1 An Overview of English for Palestine Grade 8

English for Palestine 8 is the eighth level of a complete English series. Level 8 complements and extends the work in level 6 and 7. As such, level 8 maintains the continuity of the course and offers many new features to stimulate and challenge teachers and students: for example, there is emphasis on vocabulary building, on comparing and contrasting points of grammar and on developing reading skills.

As in previous levels, the course has a double strand of communicative activities and skills work. The skills of reading, writing, listening and speaking are integrated throughout the course, and there is now more emphasis on combining the skills in sequences of activities. New vocabulary and grammatical structures are carefully controlled and are introduced in the context of the language skills. The students are
guided through graded writing activities to encourage them to write independently. The writing element of the syllabus in level 8 focuses on learning how to write clearly and concisely in English (ETB, 2007: 4).

2.5.2 Reading objectives in English for Palestine Grade 8:

The general objectives of teaching reading in English for Palestine Grade 8 have been stated by the Palestinian ministry of higher education as follows:

- Answer factual, inferential, judgment or evaluation questions.
- Read familiar material with correct pronunciation and intonation.
- Recognize proform referents.
- Generate questions about a reading text.
- Summarize a reading text.
- Make predictions about a reading text.
- Make inferences about a reading text.
- Develop awareness of synonyms and antonyms.
- Develop awareness of semantic fields (word mapping).
- Identify the main idea of a reading text.
- Identify supporting details.
- Distinguish main idea from supporting details.
- Recognize rhetorical markers and their functions.
- Comprehend visual survival material.
- Deduce meaning of unfamiliar words from context.
- Skim for gist or general impression of text or graphics.
- Distinguish fact from opinion.
- Infer mood and author's attitudes or tone.
- Understand different types of letters.
- Scan for specific information from texts and realia (ads, menu, schedule, calendar, flight information, tickets, etc.).
- Interpret information presented in diagrammatic display.
- Relate text to personal experience, opinion, or evaluation.
- Analyze components of text such as setting, theme, character, etc.
- Extract and synthesize information from different sources (ELC, 1999: 31).
It is obvious that the majority of these objectives are related directly to HOTS; hence, the researcher relied on them to some extent to build her own criteria as they include all the necessary reading skills needed for 8th graders.

2.5.3 Components of English for Palestine Grade 8

2.5.3.1 Student's Book:

The student's book uses many of the teaching techniques of previous levels, but develops and expands them in line with the students' age and abilities. The use of standard rubrics makes it easy for the teacher to recognize the purpose of each activity and to teach it effectively.

2.5.3.2 Work Book:

It provides exercises and activities that help students to practice and consolidate what they have learned from the student's book. Thus, the work book has activities for further practice of new vocabulary or new grammar in the student's book. This is indicated with reference on the student's book page and in the teacher's notes for the lesson.

2.5.3.3 Cassette:

It provides both listening material and a useful pronunciation model (ETB, 2007: 5).

2.5.4 Format of units in English for Palestine Grade 8:

There are 18 units in the student book, they include 16 main teaching units which contain 6 lessons each. Each pair of lessons is on two pages. Lessons 1 and 2, 5 and 6 are designed to be covered in one class period each. On contrary, lesson 3 and 4 are designed to be covered within two periods. Each of the main teaching units is designed for a total of eight class periods.

Furthermore, there are two revision units, unit 8 and unit 18, each designed to take four lessons. This gives the teachers the chance to review the language and vocabulary of the previous units. Where possible, the teacher should identify language items or skills that are still causing difficulties and help the students with them. The word list at the end of the student's book differs from lists in earlier grades. It contains new vocabulary for active learning in unit – by – unit alphabetical order. Stress also is marked and parts of speech are noted.
2.6 Summary:

In conclusion, this section presented the theoretical framework of the study in order to give a clear overview about the topics related to textbook evaluation, HOTS, reading comprehension skill, and English for Palestine grade 8 textbook. Next is the second section of this chapter that covers previous studies and commentary.
Section II
Previous Studies

2.7 Introduction

2.8 Studies Related to Evaluating EFL/ESL Textbooks

2.9 Studies Related to Evaluating English for Palestine textbooks

2.10 Studies Related to Evaluating HOTS in Textbooks

2.11 Studies Related to Evaluating HOTS in English Textbooks

2.12 Commentary on the previous studies

2.13 Summary
Section II

Previous Studies

2.7 Introduction

The researcher, in this particular section, provides some studies relevant to the current one. These studies, to the researcher's best knowledge, have been carried out on evaluating the series of English for Palestine in its general characteristics and the textbook as a whole. Consequently, none of the studies examined a specific skill; especially higher order thinking skills. Therefore, the current study will be the first to deal with the HOTS only. Thus, it evaluates the HOTS in the reading exercises of English for Palestine-Grade 8.

Accordingly, this section reviews twenty-eight studies so that the researcher could benefit from their procedures, tools, findings and recommendations if found. Furthermore, the studies are categorized into four main domains. The first domain reviews ten studies related to evaluating EFL/ESL textbooks. The second domain reviews eight studies related to evaluating English for Palestine textbooks. The third domain is only confined to three studies related to evaluating HOTS in textbooks other than language; specifically, geography, social studies, and science textbooks. The last domain reviews seven studies related to evaluating HOTS in English textbooks through reading skill investigation. The studies in all these domains are sequenced thematically.

2.8 Studies related to evaluating EFL/ESL textbooks:

Kamile and Karliova (2009) in their study examined and evaluated the selected English language course books from the view point of vocabulary selection and teaching techniques they employ; further, the five course books chosen by the researchers were all for adults and young adults to learn and teach English as a foreign language. To achieve this goal, content analysis was employed in the study. Findings of the study revealed that all selected course books integrated lexis into their syllabuses, giving emphasis to word knowledge by means of separated headings and additional sub – headings, such as vocabulary, word building, word formation, easily confused words, keyword transformation, near – synonyms and synonyms. In addition, all of the course books have colorful layouts supporting vocabulary
acquisition and comprehension through pictures, graphic designs, drawings, diagrams and cartoons except for grammar in context 2 which has also some pictures and drawings, but all are in black – and – white format and fewer in number, which makes the Student's Book somehow dull and less attractive than the rest of the course books.

Similar to the previous study, Nemati (2009) in his study evaluated English pre – university textbook of Karnataka state if India with respect to general criterion as well as vocabulary teaching. To achieve this, the researcher used two types of evaluation. First, a questionnaire was made with reference to some critical features extracted from different material evaluation checklist in addition to, a part related to different strategies of vocabulary teaching. Moreover, the prepared questionnaire was completed by 26 pre – university teachers from 12 randomly selected governmental and nongovernmental schools. In the second phase, to analyze vocabulary of the book systematically, some texts of the book were randomly selected, submitted to vocabulary profile to see if they are sequenced from the most frequently used words to less used one.

The results of data from the questionnaire revealed that except for some shortcomings that exist in the book, the book is generally accepted by %70 of the teachers; furthermore, the results of vocabulary analysis showed that it is better to change and do some modification in the sequence of presenting the text. That is texts with more frequent vocabularies and the easier ones come first and texts with much more difficult vocabularies should appear at the end of the book.

Hashemi (2011) conducted a study in which he evaluated the three English language textbooks that were used at high schools in Iran from the high school English teachers' point of view. For the study purpose, a 46 – item questionnaire was developed about the five sections of the textbooks (vocabulary, reading, grammar, language function, and pronunciation practice), their physical make – up, and practical concerns. Additionally, fifty high school teachers with more than five years of teaching experience were asked to reflect on the questionnaire by checking one of the four options included. Results of the study indicated that the textbooks are not acceptable from the teachers' point of view concerning their five sections, their physical make – up, and some practical concerns.
In an attempt to determine the extent to which First Grade English Textbook conformed to the common universal characteristics of EFL/ESL textbooks, Soori. et al (2011) in their research used detailed analysis focusing specifically on the use of a checklist developed by the researchers. Findings showed that only 63% percent of the book conformed to the universal characteristics of textbooks. Moreover, implications suggest that textbook developers, by using appropriate checklist, can include more universal features in their EFL/ESL textbooks which, at the same time, are tailored and adapted to the needs of the learners. To conclude, the researchers say that examining all aspects of EFL/ESL textbooks and comparing them against an assessment tool such as an evaluation checklist ensures that significant factors will not be missed.

In addition, Tok (2010) in his study aimed at investigating the advantages and disadvantages of one type of TEFL materials, English language textbook "Spot On", used in state primary schools in Turkey. The sample of the study consisted of 46 English teachers chosen randomly from state primary schools in Malatya and Adiyaman city centers. To achieve the study intent, a five–liker type scale was used for evaluation; additionally, the course book was evaluated in term of layout and design, activities and tasks, language type, subject, content and skills and whole aspect. The results of the study revealed that "Spot On" textbook actually did not stand up reasonably well to a systematic in-depth analysis and that the negative attributes far out– weighed the positive characteristics.

Dealing with the same issue, Ezici (2006) in his research tried to assess the effectiveness of an intermediate textbook titled "New Bridge To Success 3" which was prepared by Ministry of National Education as an instructional material for the ninth grade high school students from the perspective of the teachers and students. Thus, the researcher used both quantitative and qualitative data that were obtained through student questionnaires administrated to 336 students and interviews with eight teachers. Additionally, data collected through interviews were transcribed, content–analyzed and grouped according to all criteria used in the study for the evaluation of the particular textbook.

Results of the study showed that both teachers and students felt negative about the most of the characteristics of the textbook. It was also found that reading passages
needed to be simplified in terms of both vocabulary load and structures. Furthermore, the majority of students and all teachers mentioned that the level of the textbook was not appropriate for the particular age group. The results also indicated that the materials failed to consider learning style preferences of the visual, auditory, and kinesthetic learner. On the other hand, one of the strengths of the textbook was the artwork's being – up to date and helpful for the students to understand the lesson.

Another study was conducted by Litz (2001) for the purpose of evaluating and analyzing a textbook (English First hand #2) that was being used by all of the high – beginner English classes in the university's EFL Program at the Sung Kyun Kwan University. Thus, a research project needed to be initiated in order to determine the overall pedagogical value and suitability of this book towards this important component of the university language program. Additionally, the study relied on the active participation of all eight of the intermediate English course instructors as well as the five hundred students who were enrolled in the program. To achieve the study purpose, a series of textbook evaluation questionnaires were created and provided to the instructors and students at the conclusion of the first year of the course. Both the students and teacher evaluation survey questionnaires were based on the specific concerns and priorities of Sung Kyun Kwan University.

In addition, the questionnaires contained questions that pertained to the practical considerations, layout and design, range and balance of the activities, skills appropriateness and integration, social and cultural considerations, subject content, and language types represented in the textbook. Findings of the study demonstrated that the textbook stood up reasonably well to a systematic in – depth analysis and that the positive attributes far out – weighed the negative characteristics. Despite a few reservations and shortcomings (lack of an ESP focus), the teachers felt that the textbook was relatively compatible with the university's language – learning aims and suitable for small, homogeneous, co-ed classes of senior Korean students. Moreover, the teachers felt that the textbook actually raised their students' interest in further language study. To conclude, " English First hand #2" can be neither whole – heartedly recommended nor unreservedly utilized in this particular teaching and learning situation. Nevertheless, it still can be an effective textbook in the hands of a good teacher and instructors should not be discouraged from using it with the appropriate learner audience.
Close to the previous studies' aims, Seda (2007) in his study explored English teachers' attitudes towards the evaluation of the textbook "New Bridge To Success for 9th Grade New Beginners"(NBS). The study investigated teachers' perceptions concerning main characteristics of a model ELT textbook designed for high school students in Ankara. The participants of the study were 60 English teachers from 13 different Anatolian High Schools in Ankara during 2006. Furthermore, two sets of data were used for the study, first: a questionnaire was distributed to 60 English teachers and interviews were completed with 12 of the teachers who returned the questionnaire. Moreover, the textbook NBS was used as the core material for analyzing the data in terms of determining the correspondence and discrepancies between the teachers' reports and the actual features of the textbook.

Findings showed that teachers' evaluations depicted agreement and disagreement considering the features of the textbook. The findings also showed that the researcher's own observations of the textbook elements correspond to the teachers' evaluation. On the other hand, there are a number of aspects wherein the participants' responses reflect discrepancies when compared with the analysis of the textbook by the researcher.

Moving to the Arab context, Al – Yousef (2007) conducted a study in which the Third Grade Intermediate English Course Book (CB) in Saudi Arabia, 'Say It in English', Riyadh was evaluated by the researcher. To achieve the goal of the study, the researcher used a retrospective mixed – methodology research design (both quantitative and qualitative) which includes interviews / document analysis (Micro – analysis) and questionnaires (Macro – analysis) with different populations: students, teachers, supervisors, and policy makers. Furthermore, the quantitative analysis was conducted with a total sample of 184 students, teachers, and supervisors who participated in textbook evaluation tool, both online and via paper – and – pencil.

Results of the study revealed that both the teachers – supervisors and the students perceived the CB as moderately adequate; additionally, both the quantitative and the qualitative findings have shown that the content and the visuals of the textbook were among the categories that gained the most support, while gradation and recycling and supplementary material were the most poorly rated categories.
Similarly, Alamri (2008) in his study examined the quality of the sixth grade English language textbook for Saudi boys' schools which was introduced at the elementary stage by the ministry of education in 2004. To achieve this, a survey questionnaire was used to elicit the perspectives of 93 English language teachers and 11 supervisors in Riyadh Educational Zone about the textbook in question. In addition, the questionnaire consisted of 64 grouped under 12 main categories: the general appearance, design and illustration, accompanying materials, objectives, topic appropriateness, learning components, socio-cultural contexts, skills development, teachability, flexibility, teaching methods, and practice and testing. The findings were generally in favor of the textbook except for the teaching methods and some other sub-items. Out of 64 items in the questionnaire, only 13 items had arithmetic means less than 2.50. Specifically, the category that had the lowest mean was the one on teaching methods. The findings also revealed that there were no significant difference between the means of the two populations of the study (teachers and supervisors) except on the flexibility of the textbook and the different natures of their jobs might be the reason behind that difference.

2.9 Studies related to evaluating English for Palestine:

Fattash (2010) in his research aimed at addressing the congruity of the new Palestinian English language school curriculum, which has been recently introduced, with the requirements and aspects of the most recent language teaching method (the communicative approach) aimed at investigating the teachers' views of the various skills embodied in the content of this curriculum, and attempted to find out whether the requirements and aspects of the communicative curriculum were taken into consideration. For the study purpose, a questionnaire was prepared, administrated, and distributed among hundred and twenty seven English language teachers representing the total population of teachers in Nablus Districts. The study revealed a number of encouraging results such as the reading materials in the new curriculum are interesting and appealing to the new generation and the reading component is relevant to the students' cultural background. It also revealed a big number of findings that need to be seriously looked into in the process of future evaluation of the curriculum.
In an attempt to identify the existing and required life skills latent in the content of English for Palestine – grade six textbook, Hamdona (2007) designed a content analysis card that sought to collect data relevant to the study; besides, these data involved making a survey for the textbook so as to analyze the activities that match the five domains set by the study. Findings of the study showed variation in the frequencies of the five main domains and in each domain as well. Specifically, communication life skills domain got the highest score of 36.39%. The next score was personal / social life skills domain, leadership life skills domain was in the third position, the fourth was decision making / problem solving life skills and finally the lowest score was critical thinking.

To conclude, recommendations were drawn to make balance in distributing the five domains in life skills in the content of the textbook. The researcher also recommended reviewing the existing material associated with the international models for classifying life skills; he added that workshops should be held in order to discuss strengths and weaknesses of the textbook to support strong points and remedy weakness.

Following the same purpose of evaluating English for Palestine textbooks, Masri (2003) conducted an evaluative study to evaluate the first graders' new English for Palestine textbook from teachers' perspectives in the Northern Districts of Palestine. Thus, a questionnaire was developed for the purpose of the study; it included fifty five items distributed to the five domains of the study. Furthermore, all the teachers in the Northern Governorates who teach English for Palestine Grade one were the population of the study. One finding of the study revealed that the score of evaluating first graders' English for Palestine from teachers' point of view was (75.81%). Moreover, the finding of the five domains indicated that the physical appearance outlook of the textbook domain was (79.9%), level of education for the students domain was (79%), structures and grammar domain was (74%), methods, aids (teacher book) domain was (73.2%), and book content domain was (72.2%). It was also found that there were significant differences in the degree of evaluation of the Palestinian English textbook for the basic first grade gender variable in favor of males. Additionally, there were significant differences in the degree of evaluation due to educational level in favor of M.A degree holders and there were also significant differences in the degree of evaluation due to experience in favor of those who are
less than five years of experience. In the light of the findings, recommendations were suggested such as giving EFL teachers training programs and workshops to concentrate on the new methods and aids. Finally, teachers should keep focusing on modern and up to – date techniques and, other studies should be conducted to evaluate the upper grades and reward the superior teachers who perform very well in their work.

Additionally, in order to evaluate the effectiveness and suitability of English for Palestine Iv content, Mahmoud (2007) in his study used several evaluative criteria such as a questionnaire that contained important items through which a person can judge the suitability of a good TEFL or ESL textbook. The researcher used the characteristics of a good textbook in order to see whether the textbook mentioned above is suitable or not.

Moreover, the questionnaire was given to 60 English language teachers who teach the fourth graders from Jenin and Qabatia districts. Finally, the researcher noticed that these textbooks are suitable and he strongly recommended using them in private as well as in governmental schools.

Similar efforts were initiated by Al Mazloum (2007) in which he aimed at evaluating the content of English for Palestine, grade ten textbook in the light of the standards for foreign language learning. To achieve that goal, an analysis card that sought to collect data relevant to process the study was designed by the researcher. Results revealed a variance in the frequencies of the standards; the researcher points out that there should be more balance in the distribution of these standards among the units. The findings also showed good employment for topics in the textbook and various topics were introduced throughout the twelve units.

Similarly, Aqel (2009) evaluated the Palestinian 11th grade textbook from teachers' perspective. Thus, the study examined the role of the district, gender, qualification and years of experience variables among teachers on the degree of the evaluation of the new Palestinian English textbook for the eleventh grade in southern Nablus and Salfit districts. For the intent of the study, an evaluation scale was developed on the basis of language teaching and learning criteria that determined the specifications of good quality textbook.
Moreover, the sample of the study consisted of 60 male and female teachers who teach English for the 11th grade in southern Nablus and Salfit districts. The researcher also adopted a 47-item questionnaire to evaluate the textbook which includes four main domains: book general shape, book objectives, book content, and teaching aids. Findings of the study demonstrated that the degree of evaluation of English for Palestine 11th grade textbook in southern Nablus and Salfit districts was moderate; additionally, there were significant differences in book general shape domain between Salfit and southern Nablus districts in favor of Salfit. There were also differences in teaching aids between male and female teachers in favor of females. However, there were no significant differences in the degree of evaluation of the textbook due to qualification or experience variables. In the light of the results, the researcher recommended that the 11th – English textbooks be revised frequently. Moreover, they should be provided with a variety of literary forms, such as poems and essays. Finally, the units of the textbook should be reduced so that teachers can cover the material efficiently and in time.

Concerning the evaluation of culture, Al Ja'bari (2010) described and investigated how culture is presented in Palestinian high school English textbooks English for Palestine (EFP). Accordingly, three instruments were used, a questionnaire for teachers, a questionnaire for students, and a textbook evaluation guide to evaluate the cultural content. Results of the study showed that although the importance of culture in the EFL class is recognized in the guidelines for English for Palestine, this recognition does not seem to be well reflected in the textbooks and teachers' practices which means that there is a gap between the ministry guidelines for the syllabus and the real application.

Similar initiations were provided by El Shawa (2011) in which she evaluated the cultural content of English for Palestine secondary stage (Grade 11 and 12) textbooks in order to find out to what extent the content of these textbooks reflect the Palestinian and the Non Palestinian culture. To collect the needed data, the researcher used one main tool which was a content analysis card. Based on the analysis of data, the following were the most important conclusions:

- More than half of the entire activities included in the two textbooks analyzed are culturally oriented.
• There is a focus on introducing the Non-Palestinian cultures more than the Palestinian culture.
• A focus on introducing the Products of the Non-Palestinian cultures more than the Palestinian culture is evident.
• Practices of both the Palestinian and the Non-Palestinian cultures are introduced with, almost, equal reference. However, the opposite is true for the perspectives.
• Within the Non-Palestinian subdivision the focus on the Target cultures: products, practices, perspectives comes first.
• Wealthy presentation of various countries and cultures from different parts of the world; thus providing a sense of intercultural learning is obvious.
• Very limited opportunities for comparing cultures is evident.
• Absence of authentic texts for either Palestinian or Non-Palestinian countries.
• There is no special focus on providing Palestinian youth with phrases and suitable expressions to talk about and introduce their Palestinian Issue to the world via English. Absence of Islamic topics was detected as well. In the light of the results, the researcher recommended giving coherent directives in terms of guidance on the teaching of culture; further, designing teacher training programs that equip teachers with cultural teaching knowledge and related cultural activities was also suggested. Finally, active use of authentic materials along with preparing an enrichment material that include Islamic and Palestinian Issues was recommended.

2.10 Studies related to evaluating HOTS and reading comprehension in textbooks:

Injeong. et al (2009) in their study examined whether questions embedded in geography textbooks address three components of spatial thinking: concepts of space, tools of representation, and processes of reasoning. Moreover, a three – dimensional taxonomy of spatial thinking was developed and used to evaluation questions in four high school level geography textbooks. Results indicated that textbook questions focus on low – level spatial concepts more frequent than high – level spatial concepts; few questions require students to create various kinds of spatial representations and textbook questions only rarely encourage higher – order cognitive skills. All in all, the
study provided insights on the design and use of textbook questions to foster learning to think spatially.

Additionally, in order to determine, according to Bloom's taxonomy, the levels of questioning generated by third–grade social studies textbooks, Risner (2000) in his research examined the extent to which each selected textbook emphasized higher levels of questioning, i.e. above knowledge level and compared the textbooks' frequency ratings of knowledge – and above – knowledge – level questioning. Specifically, the two series selected for the study were "communities: Harcourt Brace Social Studies" and "Communities: Macmillan – McGraw Social Studies"; further, lesson plans and accompanying questions for in–class use were obtained for classification. In addition, the textbooks offered opportunities for applying and evaluating information in higher order question – and – answer classroom recitation previously omitted in textbook publications. Findings of the study suggested that elementary students exposed to the most recent editions of social studies textbooks will have opportunities, as encouraged by questions included in teachers' editions, to understand, apply, synthesize, and evaluate critically social studies concepts.

For the same purpose, the same researcher Risner, et al (1991) in their study attempted to determine the level of questioning according to Bloom's taxonomy, generated by test items that accompany selected fifth–grade science textbooks. Thus, to achieve the intent of the study, an analysis of the tests provided by three of the most commonly used elementary science textbooks was completed. Additionally, the analysis examined the extent to which each series emphasized the higher levels of questioning and what significant differences existed between the old and new publications in the number of knowledge – level and above – knowledge – level test items included in end – of – chapter tests. Accordingly, one hundred items from end – of – chapter tests were analyzed from each edition (old and new) of the textbooks series (200 per series), which represented a total sample consisting of 600 items. Moreover, the 600 items were randomly selected and categorized by the researcher and one experienced classroom teacher, according to the six major categories included in Bloom's taxonomy: knowledge, comprehension, application, analysis, synthesis, and evaluation. Results of the study revealed that higher order thinking skills are not elicited by end – of – chapter tests that accompany science textbooks. Thus, the lack of emphasis on application, analysis, synthesis, and evaluation levels of questioning
indicated a gap between the stated goals of elementary science textbooks and actual published material.

2.11 Studies related to evaluating HOTS and reading comprehension in English textbooks:

Rivas (1999) in her study presented an analysis of the reading components in a representative sample of ELT course books for intermediate level and above. Thus, it examined the way those course books reflect current theories on foreign language reading in their treatment of the reading skill. Based on the instructional implications of interactive models of reading, the analysis focused on the attempts to develop both lower- level processing skills and higher- level comprehension and reasoning skills in EFL learners. It was concluded that the course books seem to reflect current interactive views on reading, although they differ in the number and type of activities included, and were deficient in various ways. This implied that EFL teachers need to supplement deficient reading activities to help learners become efficient readers.

For evaluating the higher thinking skills according to Bloom's taxonomy, Alul (2000) in his study evaluated the instructional questions in the Eighth Grade English Textbooks used in Palestine during the academic year 1999-2000 via Bloom's taxonomy to find out to which degree it developed higher thinking skills. It is worth noting that the name of the target book is Petra 'Jordanian curriculum' which used to be taught in the West Bank before applying English for Palestine series in 2001. More specifically, questions presented in the textbook, work book and the stories were analyzed and compared according to Bloom's taxonomy method. For the study purpose, an analysis sheet was prepared. Furthermore, key words were used as criteria in the classification of the questions according to the requested taxonomy. Additionally, lower and higher level question groups were calculated, frequencies and percentages were tabulated and represented by bar graphs to facilitate the analysis of the results. Results of the study revealed that there was still a preponderance of lower level questions in the studied textbooks. Finally, the researcher recommended that more studies be conducted on English Petra textbooks for the other grades. She also recommended that the Palestinian curriculum designers improve their questioning techniques in the new Palestinian curricula.
Similarly, based on the revised Bloom's taxonomy, Lan and Chern (2010) conducted a study in which they aimed at investigating the cognitive process levels and knowledge types measured on the English reading comprehension tests of college entrance examinations administrated from 2002 to 2006 in Taiwan. Thus, a descriptive analysis was conducted to examine the similarities and differences of the content and cognitive skills intended to be assessed between the two tests, hoping to serve as a reference for English teachers while helping learners develop the needed cognitive skills in reading and test preparation. Results showed that for both tests, four major levels in the revised Bloom's taxonomy (remember, understand, apply, and analyze) along with eight sub-levels, and three types of knowledge (factual, conceptual, and procedural) along with three sub types were identified, with a total of five major question types and nine subtypes of questions. Additionally, items on remember factual knowledge and understand factual knowledge, which belong to lower cognitive levels, were the majority in the two tests, and few items were found at higher levels of (apply) and (analyze). Further, the major differences between the SAET and the DERT were the frequency, occurrence, and distribution of items testing different cognitive sub-skills and knowledge sub types. Finally, it was found that executing/apply items were more favored in the SAET, whereas the DERT has more items on inferring (a sub type under understand category).

In the study of Rahman (2004) the reading syllabus and reading materials used at the intermediate level in Bangladesh were examined. Thus, the study discussed the recent developments in reading pedagogy. It also presented an evaluation of teaching the different sub skills of reading and then through an empirical study examined whether both higher or lower order sub skills were covered in the reading syllabus, and taught properly in the country. Moreover, the methods for empirical investigation in the study included students’ and teachers’ questionnaire survey, students and teachers’ interview, classroom observation and administering reading tests; further, reading components of the syllabus and the reading materials were also evaluated. Results showed that students have problems in most of the sub skills of reading, and it also showed that the approaches to teaching and learning reading skills are still backdated; additionally, the observation showed that the syllabus, materials and tests were not bad, but these emphasized only the lower order skills; the higher skills, on the other hand, were totally neglected.
Additionally, the series of New Interchange textbooks were analyzed by Ming (2011) in his study from the viewpoint of Bloom's taxonomy. Accordingly, he investigated the learning objectives of the textbooks used in private colleges in China, and compared the differences between textbooks written by Chinese and foreign specialists, in order to give suggestions about which kind of textbooks were more suitable for Chinese English learners especially English majors, the textbooks written by Chinese scholars or those written by foreign specialists. To achieve the intent of the study, the researcher used Bloom's taxonomy for analyzing the textbooks and made an open-ended questionnaires to find out what students think about the books. Further, the data in the study were the series of Cambridge International English course textbooks for communication course and integrated skills of English for comprehensive course. Findings of the study revealed the following:

- These textbooks are heavily based on communication language learning to help students talk more in class and advance their creative thinking.
- The integrated skills of English were suitable for freshman or junior students to improve their basics.
- Knowledge and comprehension-based parts were the most important tasks and exercises (57.5%), and this placed the book at the low level of Bloom's taxonomy.
- The assignment of pair work/group work and the discussion tasks, which ranked high as comprehension/application of Bloom's taxonomy, occupy very little in the units; therefore, teachers have to enhance the level introducing creative/analysis-based assignments.

The reading skills development books of Mary Land Community College developmental/remedial programs were the focus of Charles (1980) in his study in which the researcher sought to determine the number of questions per taxonomy category; whether there was a significant difference between observed and expected frequency; and whether there was a significant difference among the categories. The study involved a survey of community college developmental reading programs, which revealed that 185 different skill were being used, and the selection of a sample of 555 questions from these books for analysis. Of the questions, 145 fell into the
knowledge category of Bloom's Taxonomy, 400 into the comprehension category, 2 into the application category, and none in the categories of analysis, synthesis, and evaluation. In this regard, this concentration of questions in the two lowest levels of thinking indicated that very little stimulation of the higher thinking processes was offered via the questions used in the reading skills development books used in the community colleges. Generally speaking, the authors and publishers of these books, and the educators that use them need to become more concerned about the higher level thinking development of students, estimate the intellectual capabilities of these students at a higher level, and consider that reading material on a higher level may build reading motivation.

Finally, concerning the Palestinian context, Ali's (2010) aimed at evaluating the reading texts and exercises in student book (SB) and (WB) of English for Palestine – Grade 9 in order to find out to what extent the reading exercises match the suggested criteria. It also aimed at identifying the areas of weaknesses in these reading texts and exercises. For the study purpose, the researcher collected the needed data through a content analysis card and a structured interview.

The researcher interviewed fifteen 9th grade English language teachers in order to find out their views about the reading texts and exercises. The findings of the study showed the following conclusions:

1. The reading texts in the textbook employed a wide variety of topics as well as values and good manners. On the other hand, no authentic reading texts were found in this textbook and extensive reading was not included. Four reading texts were found to be related to the Palestinian culture and reality and they were the most interesting to students.

2. Regarding the text vocabulary, in all the reading texts, colors were used to highlight new vocabulary and the number of new vocabulary was suitable for 9th graders.

3. Almost all the visuals accompanying the reading texts were relevant, attractive, colorful and clear to the 9th graders.

4. Concerning the text layout, all the reading texts have sufficient margins on sides and spaces between lines and are divided into paragraphs.
5. With respect to the reading exercises in SB & WB, all the instructions were clear, a great variety in questions was found within each reading text but throughout the textbook, the same types of questions were repeated. By contrast, there was no employment of exercises that require students to infer the author's attitude, distinguish between fact and opinion, recognize pronoun references, find meanings of new vocabulary in contexts, relate the text to their personal experience and to work out answers in pairs and groups. These skills were neglected in both the SB and WB.

6. Most of the results obtained from the interviews supported all the results obtained from the content analysis card.

Based on the study findings, the researcher recommended modifying the reading exercises by preparing an enrichment material that cover all the neglected skills. Also, it was recommended to conduct other studies similar to this study or in other skills like writing, speaking or listening in other textbooks of English for Palestine Series.

2.12 Commentary on the previous studies:

By reviewing the above mentioned studies, the researcher's background has been expanded especially on choosing the suitable tools that researchers followed when conducting evaluative studies.

Most importantly, as few studies evaluated the HOTS separated from other skills in general studies in the world and in the Palestinian studies, this study tended to evaluate the HOTS in reading exercises in the Palestinian English textbook. Therefore, the researcher sees that the current study will be more different from other studies.

Besides, the researcher came out with her own criteria after revising different sources; specifically, the previous studies. Accordingly, she reviewed twenty-eight studies. Ten of the studies were related to evaluating EFL / ESL textbooks in general, eight studies were related to evaluating English for Palestine textbooks, three studies were related to evaluating HOTS in general books, and finally, seven studies were related to evaluating HOTS in the English textbooks through the reading skill investigation. Finally, unlike other researchers, the researcher herself built her own criteria for evaluation in terms of international standard criteria. It is worth mentioning that in
terms of the used instrument, most of the reviewed studies used the content analysis card in addition to the interview. This was a strong motive that led the researcher to use the content analysis card to conduct the present study.


Concerning the results of the study, most of them showed negative results such as Hashemis's study (2011) which indicated that the textbooks are not acceptable from the teachers' point of view considering their five sections, their physical make – up, and some practical concerns. Tok (2010) revealed that "Spot On" textbook actually did not stand up reasonably well to a systematic in – depth analysis. In Ezici’s study (2006), results showed that both teachers and students felt negative about the characteristics of the textbook and that the reading passages needed to be simplified in terms of both vocabulary and structure. Al Ja'bari (2010) showed that there is a gap between the ministry guidelines for the syllabus and reality. In addition, Alul (2000), Lan & Chern (2010), Rahman (2004), and Ming (2011) in their studies affirmed that there was still a preponderance of lower level questions over HOTS.

On the contrary, some studies assured that the textbooks are well designed and fulfill the textbook evaluation criteria such as Al – Mazloum (2007), Mahmoud (2007), Al – Yousef (2007), the findings of these studies proved that the textbooks analyzed were suitable and highly recommended for use in the classroom.

2.13Summary:

The main focus of this chapter is reviewing the related literature of evaluation, reading, and HOTS. In addition, previous studies were reviewed and commented on.
Chapter Three
Methodology

3.1 Introduction

3.2 Research Design

3.3 Instrumentation

3.4 Procedures of the study

3.5 Summary
Chapter Three
Methodology

3.1 Introduction

The practical aspects of this study will be described in the current chapter. This includes the techniques of collecting and describing the data through employing the suitable tool to fulfill the intent of the study. Generally speaking, this chapter provides an illustration for the method decided to be used, the tools of the study that involve constructing a content analysis card and a structured interview, examining its validity and reliability and the procedures that were used to carry out the study.

3.2 Research method

The researcher, in order to conduct the study, adopted the descriptive analytical method of research. The descriptive method means "any research that describes a setting or events in numerical terms" (Brown and Rodgers, 2002: 118).

Hence, the researcher adopted this type of research as the study seeks to evaluate to what extent the HOTS are available in Grade 8 textbook.

3.3 Instrumentation

Content analysis is used as the research instrument for this study. Hsieh and Shannon (2005: 1278) define content analysis as "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns".

Along with this definition, content analysis is considered to be "an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analytic rules and step by step models, without rash quantification" (Mayring, 2000: 2). Out of these definitions, Patton (2002: 453) says that content analysis is "any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings". It is obvious, from these definitions that qualitative content analysis emphasizes an integrated view of speech/texts and their specific contexts. Qualitative content analysis goes beyond merely counting words or extracting objective content from texts to examine meanings, themes, and patterns that may be manifested or latent.
in a particular text. It allows researchers to understand social reality in a subjective but scientific manner (Weber: 1990).

In this regard, Ali (2010: 88-89) states that content analysis is an appropriate research method to use when manipulating large quantities of textual information to systematically identify certain characteristics or properties. Consequently, to achieve the study purpose, a content analysis card was used to collect, describe and analyze data regarding the availability of HOTS in reading exercises of English for Palestine-Grade 8 in the light of the suggested checklist in the analysis card.

3.5.3 Constructing the content analysis card

Having reviewed the available literature including books, previous studies, and related articles, the researcher constructed her own criteria. This is because only some of the criteria in the checklist that were reviewed suit the purpose of the study.

3.5.4 Description of the content analysis card:

3.5.4.1 Purpose of the analysis:

The analysis, in this evaluative study, aims at investigating the extent to which the HOTS are available in the reading exercises in SB and WB of English for Palestine-Grade 8.

3.5.4.2 Documentation:

The analysis includes all the reading exercises of all (18) units of the SB and the WB as well.

3.5.4.3 Category of the analysis:

The whole number of the reading comprehension exercises in the SB is 278 that is distributed among the 18 units of the target textbook. Out of these exercises, only 77 are related to the higher order thinking skills which have the percentage of 27.69. On the other hand, the whole number of the reading exercises in the WB is 260. Only 27 out of them are related to the higher order thinking skills, this has the percentage of 10.38.

3.5.4.4 Elements of the analysis:

The research reviewed variant sources to build the criteria for evaluation, these criteria are the elements of the analysis card.
3.5.4.5 Limitation of the analysis:

1- The analysis covers all the reading exercises of the reading texts in SB and WB as well.
2- The teacher's book isn't included in the analysis.
3- The analysis focuses mainly on the reading skill not on other skills.

Besides, the content analysis card was shown to experts so that the researcher could benefit from their comments and suggestions for further modifications. (Appendix 1)

3.5.5 Validity of the content analysis card:

To ensure the validity of the content analysis card, it was shown to some experts from different institutions. The majority of the referees (9) were from the Islamic University of Gaza, two of them were from Al-Qattan Centre, one of the referees was from Gaza University and the remaining one was an English supervisor in UNRWA.

The list of the criteria was checked to examine:

1- The comprehensiveness of the dimensions needed for the analysis,
2- The relevance of the items to the general dimensions, and
3- The clarity and linguistic correctness of the criteria.

After showing the content analysis card to experts and in the light of their suggestions, some of the items included in the checklist were omitted due to having nearly the same meaning. All in all, the referees assured the suitability of the criteria included in the checklist for evaluating the availability of HOTS in the reading exercises of English for Palestine – Grade 8. After confirming the final version of the checklist, the number of items became (26) distributed into three categories i.e.; analysis, synthesis, and evaluation as shown in table (3.1). (Appendix 2)
Table (3.1)
The number of items in each domain of the analysis card

<table>
<thead>
<tr>
<th>No.</th>
<th>Domains</th>
<th>No of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Analysis</td>
<td>13</td>
</tr>
<tr>
<td>2.</td>
<td>Synthesis</td>
<td>9</td>
</tr>
<tr>
<td>3.</td>
<td>Evaluation</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>26</td>
</tr>
</tbody>
</table>

Illustration of the items used in the content analysis card:

**Analysis:** It refers to the ability to break down material into its component parts so that its organizational structure may be understood. This may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved. Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material. An illustration of each item will be shown below in table (3.2)

Table (3.2) Illustration of the analysis items

<table>
<thead>
<tr>
<th>Items under investigation related to the analysis skill</th>
<th>Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Distinguish facts from opinions.</td>
<td>Students should distinguish between natural, scientific, historical, geographical facts and author's opinion.</td>
</tr>
<tr>
<td>2- Categorize information in text.</td>
<td>Students should find the relations that may distinguish certain pieces of information from others and separate them in categories according to the relation in between.</td>
</tr>
<tr>
<td>Items under investigation related to the analysis skill</td>
<td>Illustration</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>3- Compare items in text.</td>
<td>Students should find similarities or differences between items in the text.</td>
</tr>
<tr>
<td>4-Guess meaning of words in context.</td>
<td>Students should find clues in the text to get the meaning of unfamiliar words.</td>
</tr>
<tr>
<td>5-Read between lines.</td>
<td>Students should explore the hidden message of the texts which is not read in the printed lines.</td>
</tr>
<tr>
<td>6-Recognize causes and effects.</td>
<td>Students should find the causes or the effects of certain events, phenomena, situations or action,</td>
</tr>
<tr>
<td>7-Explain the information introduced.</td>
<td>Students should illustrate information in the text, simplify, and give examples.</td>
</tr>
<tr>
<td>8-Recognize clues and evidence.</td>
<td>Students should examine the text or the pictures accompanied to find clues that may lead to certain decision or to more understanding of the text.</td>
</tr>
<tr>
<td>9-Elicit rules and principles.</td>
<td>Students should find permanent relations between specific concepts.</td>
</tr>
<tr>
<td>10-Infer the mood, attitudes, or tones of the author.</td>
<td>Students should elicit the message the author wants to convey.</td>
</tr>
<tr>
<td>11- Distinguish main ideas from the supporting ones.</td>
<td>Students should differentiate main ideas and the ideas in relevance that illustrate them.</td>
</tr>
<tr>
<td>12- Order items according to their importance.</td>
<td>Students should distinguish between what is important and less important or un important and scale them according to their importance.</td>
</tr>
<tr>
<td>13- Break down the text into its main components.</td>
<td>Students should recognize the components of the text, the role of each item and introduce it in separation.</td>
</tr>
</tbody>
</table>
**Synthesis:** It refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech), a plan of operations (research proposal), or a set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns or structures. Table (3.3) will introduce a brief illustration to each item of the synthesis skill.

<table>
<thead>
<tr>
<th><strong>Items under investigation related to the synthesis skill</strong></th>
<th><strong>Illustration</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Rearrange information related to the text.</td>
<td>Students may reconstruct the text in a different form or rearrange jumbled ideas to match the form of the original texts.</td>
</tr>
<tr>
<td>2- Summarize texts.</td>
<td>Students should concise the most important components of the text to communicate the message in brief using their own words.</td>
</tr>
<tr>
<td>3- Write or retell the material of the text using his own words.</td>
<td>Students paraphrase the text in their own words.</td>
</tr>
<tr>
<td>4- Predict events or solutions related to the text.</td>
<td>Students should think of or suggest solutions related to posed situations in the text.</td>
</tr>
<tr>
<td>5- Discuss to persuade.</td>
<td>Students should argue, debate or explain ideas related to the text to persuade others with their beliefs.</td>
</tr>
<tr>
<td>6- Hypothesis data.</td>
<td>Students should suppose or imagine unavailable ideas in the text.</td>
</tr>
<tr>
<td>7- Generate information related to the text.</td>
<td>Students should think and produce ideas that may add something new to explain or support the text.</td>
</tr>
<tr>
<td>8- Combine his own information with the information in the text.</td>
<td>Students should interact with the text through adding their information to the information in the text to compose an integrated image of the target material.</td>
</tr>
<tr>
<td>9- Connect knowledge from different sources.</td>
<td>Students search for information related to the text from other texts, or pictures in the book or any other resources.</td>
</tr>
</tbody>
</table>
**Evaluation:** It is concerned with the ability to judge the value of material (statement, novel, poem, research report) for a given purpose. The judgments are to be based on definite criteria. These may be internal criteria (organization) or external criteria (relevance to the purpose) and the student may determine the criteria or be given them. Learning outcomes in this area are highest in the cognitive hierarchy because they contain elements of all the other categories, plus conscious value judgments based on clearly defined criteria. A brief demonstration will be provided concerning the items of the evaluation skill in table (3.4)

**Table (3.4)**

<table>
<thead>
<tr>
<th>Items under investigation related to the evaluation skill</th>
<th>Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Express his/ her opinions towards situations in the target text.</td>
<td>Students should decide whether to agree or disagree with a certain opinion or situation basing their opinions on logical bases.</td>
</tr>
<tr>
<td>2- Conclude themes of texts.</td>
<td>Students should explore what the text is mostly about.</td>
</tr>
<tr>
<td>3- Recognize subjectivity and objectivity.</td>
<td>Students should explore whether the information stated in the texts are facts free from bias misleading or opinions aims at influencing readers' feeling and thoughts.</td>
</tr>
<tr>
<td>4- Make choices based on reasoned argument.</td>
<td>Decide whether something is false or true, relevant or irrelevant, balanced or exaggerated.</td>
</tr>
</tbody>
</table>
3.5.6 Performing the analysis:

In order to apply the analysis, the researcher contacted another researcher to carry out the content analysis card with her. She provided the other researcher with the criteria she prepared for evaluating the availability of HOTS in reading exercises and discussed with her how to conduct the analysis. In addition, the second researcher was asked to start analysis for units 1 – 5 from the SB and the WB to check her understanding. After assuring the researcher's involvement, she was asked to complete the analysis for all the 18 units. Besides, the analysis was conducted through counting the frequencies of each item in both SB and WB.

3.5.7 Reliability of the analysis card:

The concept of reliability can be viewed in internal or external terms. Brown and Rodgers (2002: 241) define internal reliability as "the degree to which we can expect consistent results if the data for the study were re-analyzed by another researcher". On the other hand, they define external reliability as "the degree to which we can expect consistent results if the study was repeated". Thus, to achieve this, another researcher was involved in the process of analyzing the textbook in order to examine the reliability of the analysis card. Additionally, the researcher and her colleague analyzed the first five units twice at two weeks in between. The purpose was to find out to which degree correlation exists through time and through persons. To check the reliability, she used Holsti Correlation to determine the reliability as mentioned below (Holsti, O.R.88: 140-142):

\[
R = \frac{2M}{N1 + N2}
\]

(R) refers to the consistency; (M) refers to the number of the analysis agreed upon by the analyzers; (N1 and N2) refer to the elements of the analysis. Correlation between the two researchers is shown below in table (3.5)
The results in the above mentioned table show that there is a strong correlation which enables the researcher to process the data collected.

3.3.7 Reliability through persons

To test the level of consistency through persons, the findings of the analysis of the reading exercises of the first five units of SB and WB in *English for Palestine grade 8* done by the two researchers was examined by Holstí equation.

Table (3.6) shows the level of consistency between the results of the two researchers.
Table (3.6)

<table>
<thead>
<tr>
<th></th>
<th>Analyzers</th>
<th>Number of items</th>
<th>Points of agreement</th>
<th>Points of difference</th>
<th>Correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB</td>
<td>First Analyzer</td>
<td>69</td>
<td></td>
<td></td>
<td>95.6</td>
</tr>
<tr>
<td></td>
<td>Second Analyzer</td>
<td>69</td>
<td>66</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>WB</td>
<td>First Analyzer</td>
<td>28</td>
<td>28</td>
<td>0</td>
<td>100.00</td>
</tr>
<tr>
<td></td>
<td>Second Analyzer</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results in the table above show that there is a high correlation between the two researchers, which enables the researcher to process the data collected.

3.3.8 The interview

The researcher carried out a structured interview with English language teachers who teach *English for Palestine – Grade 8*. Specifically, she consulted many experts from the field to choose the suitable questions for the purpose of the interview and to benefit from their experience. (Appendix 3)

3.3.8.1 The objective of the interview:

For the sake of validating or refuting the findings the researcher obtained from the content analysis process, she conducted a structured interview with sixteen 8th grade English language teachers in Khanyounis city. The main aim of the interview was to find out their views concerning the availability of HOTS in the reading exercises of *English for Palestine – Grade 8*. (Appendix 4)

3.3.8.2 Description of the interview:

The interview handled the following points:

1- The availability of HOTS in the reading exercises from teachers' point of view.
2- The mostly used skill of HOTS in the reading exercises in both SB and WB.
3- The least used skill of HOTS in the reading exercises in both SB and WB.
4- Whether the reading exercises enhance students' HOTS.
5- Any suggestions would be provided to enhance HOTS in the reading exercises of the target book.

3.3.8.3 Population of the interview:

It includes all 8th grade English teachers in UNRWA schools in Khanyounis city. Thus, the population consisted of (31) teachers; (18) male and (13) female teachers.

3.3.8.4 Sample of the study:

The sample of the interview includes 16 teachers; (7) male teachers and (9) female teachers. It represents 50% of the population. The sample was stratified randomly. The interview was carried out with the teachers who taught SB and WB of English for Palestine – Grade 8.

3.3.8.5 Validity of the interview:

To ensure the validity of the interview, the researcher distributed it to (13) juries from the Islamic University, Gaza university, UNRWA English Supervisors and QCERD. All agreed on the suitability of the questions in the interview card. (Appendix 5)

Moreover, the researcher distributed a defining sheet to 8th grade English language teachers. This aimed at familiarizing the English teachers of what HOTS exactly mean and to give them an idea about the items included in the analysis card. (Appendix 6)

3.3.8.6 Carrying out the interview

The researcher interviewed the sixteen members of the sample individually then she calculated points of agreement and differences statistically.

3.4 Procedures of the study:

The researcher conducted the following procedures:

- Building the criteria of the evaluation through reviewing the literature related to textbooks evaluation.
- Consulting some specialists to verify the tools.
- Modifying the analysis card according to the referees’ comments.
- Applying the analysis card with the help of another researcher.
- Getting the permission from UNRWA administrators to carry out the interview. (Appendix 7)
• Conducting the interview with 8th grade teachers of English in Khanyounis city.
• Analyzing the data in the form of frequencies and percentages and organizing it through tables.

3.5 Summary:

This chapter presented the methodology followed in this study. It described how the research was conducted, the instrumentation, and how the data were collected, recorded and analyzed. In addition, it presented how validity and reliability of the content analysis card were verified and tested for performing the study. Then the interview, its aim, description, population, sample, validity and reliability and the whole procedures of the study were discussed.
Chapter Four
The Study Findings

4.1 Introduction
4.2 Results of the content analysis card
4.3 Results of Interviews
4.4 Summary
Chapter Four

The Study Findings

4.1 Introduction

This chapter presents the findings of the study. Two statistical techniques, i.e., frequencies and percentages are used to show the final collected data results. Tables are also used to clarify and present these data. Through these forms, points of strengths and weaknesses are identified.

4.2 Results of the Content Analysis Card

1-The developed list of criteria for reading exercises:
One of the purposes of the study is to develop a list of criteria in order to evaluate the reading exercises. The suggested criteria built by the researcher can be used as a guide to allocate the areas of strengths and weaknesses in the reading exercises. Additionally, it may help those who are concerned in evaluating textbooks to better analyze and evaluate the reading exercises by examining the extent to which these criteria are applied.

2-Evaluating the reading exercises of the SB and WB:
Having developed the suggested criteria, the researcher designed a content analysis card and refereed it to analyze the reading exercises to collect the needed data concerning the three sub skills related to HOTS.

Question 1:

To what extent do the reading exercises of English for Palestine – grade 8 include analysis skill?

To answer this question, the researcher analyzed the reading exercises of English for Palestine – grade 8.

The following domain includes 13 criteria related to the reading exercises in both SB and WB. Table (4.1) shows frequencies, averages and relative weight of the sub skills belonging to analysis skill.
Table (4.1)
Frequency and percentage of the items in the analysis skill

<table>
<thead>
<tr>
<th>Items</th>
<th>SB</th>
<th>%</th>
<th>WB</th>
<th>%</th>
<th>total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Distinguish facts from opinions.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>2- Categorize information in text.</td>
<td>5</td>
<td>11.1</td>
<td>4</td>
<td>44.4</td>
<td>9</td>
<td>16.7</td>
</tr>
<tr>
<td>3- Compare items in text.</td>
<td>3</td>
<td>6.7</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.6</td>
</tr>
<tr>
<td>4- Guess meaning of words in context.</td>
<td>4</td>
<td>8.9</td>
<td>1</td>
<td>11.1</td>
<td>5</td>
<td>9.3</td>
</tr>
<tr>
<td>5- Read between lines.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>6- Recognize causes and effects.</td>
<td>19</td>
<td>42.2</td>
<td>3</td>
<td>33.3</td>
<td>22</td>
<td>40.7</td>
</tr>
<tr>
<td>7- Explain the information introduced.</td>
<td>2</td>
<td>4.4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.7</td>
</tr>
<tr>
<td>8- Recognize clues and evidence.</td>
<td>7</td>
<td>15.6</td>
<td>1</td>
<td>11.1</td>
<td>8</td>
<td>14.8</td>
</tr>
<tr>
<td>9- Elicit rules and principles.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>10- Infer the mood, attitudes, or tones of the author.</td>
<td>2</td>
<td>4.4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.7</td>
</tr>
<tr>
<td>11- Distinguish main ideas from the supporting ones.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>12- Order items according to their importance.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>13. To break down the text into its main component.</td>
<td>3</td>
<td>6.7</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Successively, the above table shows that very high percentages are scored for the items 'recognize causes and effects' which got the highest percentage among the other items % 42.2 with a frequency of 19, 'recognize clues and evidence' got % 15.6, 'categorize information in text' got % 11.1, 'guess meaning of words in context' 8.9 and so on. With noticing that these results are attributed to the SB only, whereas the majority of the criteria are not available in the exercises of the WB as illustrated in the table.

More emphasis will be paid to these criteria in the following chapter.
Question 2

To what extent do the reading exercises of English for Palestine – grade 8 include synthesis skill?

To answer this question, the researcher analyzed the reading exercises of English for Palestine – grade 8. The following table includes frequencies, averages and relative weight of the sub skills belonging to Synthesis skill.

**Table (4.2)**

The frequency and percentage of the items in the synthesis skill

<table>
<thead>
<tr>
<th>Items</th>
<th>SB</th>
<th>%</th>
<th>WB</th>
<th>%</th>
<th>total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rearrange information related to the text.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5.3</td>
<td>1</td>
<td>2.3</td>
</tr>
<tr>
<td>2 Summarize texts.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5.3</td>
<td>1</td>
<td>2.3</td>
</tr>
<tr>
<td>3. Write or retell the material of the text using his own words.</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10.5</td>
<td>2</td>
<td>4.7</td>
</tr>
<tr>
<td>4. Predict events or solutions related to the text.</td>
<td>9</td>
<td>36</td>
<td>0</td>
<td>0.0</td>
<td>9</td>
<td>20.9</td>
</tr>
<tr>
<td>5. Discuss to persuade.</td>
<td>4</td>
<td>16</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
<td>9.3</td>
</tr>
<tr>
<td>6. Hypothesis data.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>7. Generate information related to the text.</td>
<td>2</td>
<td>8</td>
<td>9</td>
<td>47.4</td>
<td>11</td>
<td>25.6</td>
</tr>
<tr>
<td>8. Combine his own information with the information in the text.</td>
<td>8</td>
<td>32</td>
<td>3</td>
<td>15.8</td>
<td>11</td>
<td>25.6</td>
</tr>
<tr>
<td>9. Connect knowledge from different sources.</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td>10.5</td>
<td>4</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Table (4.2) shows the percentage and frequency of each item of synthesis skill. It is obvious that, in the exercises of the SB, the item "predict events or solutions related to the text" got the highest frequency of 9 times and the percentage % 36. This indicates that the reading exercises are enriched to some extent with predicting events. After that, the item "combine his own information with the information in the text" comes to occupy a percentage of 32 with a frequency of 8. On contrary, the exercises of the WB are not enriched enough with synthesis activities except for the item "generate information related to the text" which got % 47.4 with a frequency of 8.
Question 3

To what extent do the reading exercises of English for Palestine – grade 8 include evaluation skill?

To answer this question, the researcher analyzed the reading exercises of English for Palestine – grade 8.

The following table includes the frequencies, the averages and the relative weight of the sub skills belonging to the Evaluation skill.

**Table (4.3)**

The frequency and percentage of the items in the evaluation skill

<table>
<thead>
<tr>
<th>Items</th>
<th>SB</th>
<th>%</th>
<th>WB</th>
<th>%</th>
<th>total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Express his/her opinions towards situations in the target text.</td>
<td>5</td>
<td>71.4</td>
<td></td>
<td>0</td>
<td>5</td>
<td>71.4</td>
</tr>
<tr>
<td>2- Conclude themes of texts.</td>
<td>2</td>
<td>28.6</td>
<td></td>
<td>0</td>
<td>2</td>
<td>28.6</td>
</tr>
<tr>
<td>3- Recognize subjectivity and objectivity.</td>
<td>0</td>
<td>0.0</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>4- Make choices based on reasoned argument.</td>
<td>0</td>
<td>0.0</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7</td>
<td>100</td>
<td></td>
<td>0</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

Table (4.3) reveals that 2 criteria out of the four ones "express his/her opinions towards situations in the target text and conclude themes of the text" are available in the reading only, while the exercises of the WB do not include any of these criteria at all. This shows that there is a sign of deficiency in this skill and the reading exercises really need to be enriched with more evaluative studies.

These are the results obtained from the content analysis card. Following is the answer to the sub question related to the interview.

**4.3 Results of Interviews**

What is 8th grade English language teachers' evaluation of the higher order thinking skills in the reading exercises of *English for Palestine Grade 8*?

To answer this question, the researcher carried out an interview with 8th grade English language teachers to check their evaluation of HOTS in the reading exercises of English for Palestine Grade 8. Next is the teachers' answers to the posed questions.
Q1: Based on your teaching experience, do you think that HOTS are well-treated in the reading exercises? Please elaborate.

Their answers to the question were the following:

12 teachers out of 16 said that HOTS are not well-treated or rather neglected, they see that most of the pre-reading and the post reading questions treat the comprehension level of thinking since the passages are meant for comprehension. Besides, the lack of HOTS in the reading exercises may be ascribed to the following three reasons:

1- Most of the passages are scientific in form, hence, it is not easy for the author nor for the teacher to ask questions that include HOTS.

2- The exercises after each reading text are not organized in a way to aid the implementation of Bloom's taxonomy.

3- They believe that the authors have not followed a certain method of questioning.

Additionally, they see that the reading exercises focus primarily on the lower skills such as knowledge, comprehension and application. Therefore, these exercises do not satisfy competent students because they need more questions that promote their thinking abilities.

The remaining four teachers proved that HOTS are covered fully and the exercises are above students' mentalities. In addition, students cannot guess the meaning of some vocabularies because they are too many and they, as teachers, find difficulty in dealing with such exercises since they have to finish the whole textbook within a very limited time. Another teacher said that HOTS are there and they are also above students' mentalities; therefore, teachers deleted these exercises and replaced them with the support material done by the UNRWA since it suits students' abilities and levels.
Q2: Based on your teaching experience, which of the HOTS are mostly used in the reading exercises *English for Palestine grade 8*?

Their answers to the question were the following:

14 teachers out of 16 emphasized that the analysis skill is the mostly used and more presented than the other two skills because according to Bloom's taxonomy *synthesis* and *evaluation* are the highest skills. Accordingly, analysis skill is introduced through guessing the meaning of some words and recognizing the causes of some events. Regarding the synthesis skill, it includes the ability to write, make summaries, and sometimes construct a comprehensive idea of the text. As a result, this skill comes after analysis.

On the contrary, two teachers have different opinions. One of them said that evaluation is the mostly used while the other said that synthesis then analysis skill is the mostly used in the exercises.

Q3: Based on your teaching experience, Which of the HOTS are less concentrated on? Why?

Their answers to the question were the following:

15 teachers out of 16 asserted that evaluation exercises are excluded or rather neglected (do not exist). This is due to the fact that students' minds are still limited. Thus, they cannot judge things appropriately or give opinions toward situations; therefore, the curriculum designers may exclude such activities because they know that the evaluation skill is the highest one in Bloom's taxonomy and students can just answer the simple and direct questions. Furthermore, students do not have the ability to express opinions or judge things because their exposure to the language is poor. They do not practice it except in classrooms and in fact the curriculum, especially Grade 8, is so long and more complex than other textbooks in the prep stage.

On the other hand, just one teacher said that analysis skill is less concentrated on without giving any explanation.
Q4: Based on your teaching experience, Do you think that the reading exercises improve students' HOTS? Why?

Their answers to the question were the following:

Ten teachers said that the reading exercises do not improve students' HOTS since the majority of the questions focus primarily on comprehension level, so they resort to the support material which contains some exercises that enhance HOTS to some extent done by the UNRWA. Others said that the exercises do not improve students' HOTS due to the lack of the three skills (analysis, synthesis, and evaluation). In addition, some of those teachers said that they, as teachers, add additional exercises for toppers to satisfy their desire in learning.

On the contrary, six teachers have proved that the reading exercises promote students' HOTS, not so much, but from time to time; specifically, in the analysis skill which is the most used and focused on. It improves students' ability in reading critically and guessing the meaning through context. Still they need more focus on the other two skills. Others stated that reading exercises improve students' HOTS a little bit but not so much because the main focus is how to make students succeed not to think deeply of the introduced information. Besides, these exercises are meant for the high achievers in order to benefit from it. Regarding low achievers, they can just learn the lower skills represented in comprehension and application.

Q5: What suggestions would you provide to enhance HOTS in the reading exercises in the target textbook?

Their answers to the question were the following:

Eight teachers said that it would be better if these textbooks are provided by more questions that include HOTS which suit students' level and environment. In addition, providing students with a suitable and variant passages; e.g., stories, social problems, daily situations, and some useful scientific passages. Moreover, following a certain technique of asking the questions such as Bloom's taxonomy taking into account the gradation from simple to complex questions and keeping in mind students' needs. Thus, HOTS should be varied and short; i.e., each question should contain one specific idea. Specifically, HOTS should be covered and suit students' attitudes, interests, desires, and levels.
Two teachers suggested conducting remedial and enrichment material that cover these three skills.

Three teachers suggested that English teachers should have more training courses on how to deal with these skills and how to improve students' abilities to apply HOTS in their life.

Other two teachers suggested that more time should be given to students to be able to practice these skills.

One teacher said that it is better to change this textbook totally and replace it by another one which suits students' abilities.

The above answers were obtained from various teachers who teach 8th grade in Khanyounis city only. Besides, these answers were the teachers' views concerning the reading exercises in the target book.

4.4 Summary:

This chapter answered the questions of the study by presenting the findings of the used instruments (the content analysis card and the structured interview). Concerning these findings, it can be said that the reading exercises in English for Palestine Grade 8 need to be enriched with HOTS especially the evaluation skill which has the least share in the reading activities if compared with the other two skills (analysis and evaluation). This does not mean that these two skills are treated properly throughout the SB and WB, but it directs the attention of emphasizing this skill (evaluation) due to its eminent deficiency. Based on these findings, a detailed discussion will be provided in the next chapter.
Chapter Five

Discussion, conclusion and recommendations

5.1 Introduction

5.2 Discussion of the results of the content analysis card

5.3 Discussion of the results of interviews

5.4 Recommendations:

5.5 Implementation for further studies
Chapter Five

Discussions, Conclusion, and Recommendations

5.1 Introduction:

This chapter intends to introduce the findings of the study, interpret, discuss and match them to the findings of the previous studies. In addition, implication and recommendations depending on the study findings will be presented at the end of this section.

5.2 Discussion of the results of the content analysis card

*Next is the answers and discussions of the sub questions of the study:*

- *Answer and discussion of the first sub question:*

  To what extent do the reading exercises in English for Palestine grade 8 include analysis skill?

  The results of checking the availability of the analysis skill in the reading exercises in *English for Palestine grade 8 (SB)* came as the following:

  Only eight items out of the thirteen of the analysis sub skills are available while the other five sub skills are absolutely neglected to the extent of zero percentage.

  The following is the discussion of the available items in the SB

  "*Categorize information in a text*"

  This skill requires students to group the information each according to its origin or class. It got % 11.1 with a frequency of 5 times in relation to the total number of all the analysis items which are 45.
Description of the activity: students are going to classify each word according to the category it belongs to namely (proteins – fats – carbohydrates).

2-Compare items in a text.

In this type of exercises, students are asked to compare between two things mentioned in the text. It got % 6.7 with a frequency of 3 times in relation to the total number of all the analysis items which is 45.

Example: Unit 7 – Lesson 3 an 4 – Ex:5 – P.45

Description of the activity: students have to read the text in order to compare between Scott and Amundsen to find out the similarities between them; in addition, they have to find out the differences between the weather in Palestine and the weather in the Antarctic.

3-Guessing meaning of words in context

This sub skill requires students to guess what the words mean in the target text. It got % 8.9 in relation to the total number of the analysis items which is 45 with a frequency of 4 times.
4-Recognizing causes and effects

This means that students are required to explore causes behind occurrence of certain matters mentioned in the text. It got % 42.2 with a frequency of 19. This indicates that this item has the highest rate of frequency if compared with the other items which indicate analysis skill. The findings concerning this item match the results of the interview with eighth grade English language teachers which was conducted in this study, in that, teachers assured that causes and effects questions have the highest frequency in English for Palestine grade 8.

Example: Unit 10 – Lesson 3 and 4 – Ex:4 – P.61

Description of the activity: students should read the text then find the causes of Deema and Maria's beliefs about their uniforms, why Bill needs different clothes and why Abdul-Salam is wearing that type of clothes.
5-Explain the information introduced.

Explaining the information introduced is an important sub skill that requires students to activate their minds and to interact with the received information to explain it, not to be recipients only. It received % 4.4 with a frequency of 2 times. The following is an example of an exercise that asks students to explain the information in the text.

Unit 5 – lesson 3 and 4 – Ex:1 – P. 32

Description of the exercise: students have to examine the picture to introduce explanation of the available information to someone who does not know it.

6- Recognize clues and evidence

Referring to this item, students are to examine certain points in the text in order to find clues that may lead to more understanding of the text. It got % 15.6 with a frequency of 7 times. It could be said this item comes after the item "recognize causes
and effects” which has the highest number of frequency in the analysis items in comparison with the other remaining items.

example: Unit 6 – Lesson 3 and 4 – Ex:2a – P.38

Description of the activity: students have to examine the title to find the relation between it and the picture and to guess where might the text be from and who might it be for using the clues in the pictures.
7-Infering the mood, attitudes, or tones of the author

regarding the item 'infer the mood, attitudes, or tones of the author' it got the percentage of % 4.4 with a frequency of 2 times. This means that the number of the questions that urge students to think about what the writers want to convey or their attitudes are very rare. Thus, the SB needs more varied questions that prompt students to elicit or infer the author's beliefs and attitudes.

Example: Unit 17 – Lesson 3 and 4 – Ex:3 – P.102

Description of the activity: students are supposed to read the title of the text carefully in order to infer the writer's answer to the question "Will the oceans live or die?". This question matches the criteria of inferring the mood, attitudes, or tones of the author.
8- Break down the text into its main component.

This sub skill requires students to analyze the text into its components to highlight specific ideas. It got % 6.7 with a frequency of 3 times. This item is exemplified in only three units throughout the SB which are (Unit 7 – Lesson 3 and 4 – Ex:4 – P.45, Unit 11 – Lesson 3 and 4 – Ex:4 – P.67, and Unit 14 – Lesson 3 and 4 – Ex:3 – P.85). The following is an example that requires students to break down the text into its main components:

**Example: Unit 11 – Lesson 3 & 4 – Ex:4 – P.67**

![Make notes from what you have read.](image)

**Description of the activity:** students are supposed to read the text thoroughly, find out the main pieces of information that compose the whole body of the text and list them in the box as separate items.

**Findings of the work book:**

After analyzing the reading exercises of the WB and checking the availability of HOTS in these exercises, it was found:

Regarding the analysis skill: Only four items related to this skill are mentioned with complete ignorance of the other items. For more clarification, the item "*categorize information in texts*" got the percentage % 44.4 with a frequency of 4 times in relation to the total number of the analysis skill exercises.
Example: Unit 5 – Lesson 3 and 4 – Ex: 4 – P. 29

![Diagram](image)

**Description of the activity:** students should refer back to exercise number 3 and then complete the network each with its suitable words. It is a matter of categorizing items under their collection.

**Guess meaning of words in context**

This sub skill refers to the reader's ability to find clues in the text that help guessing meaning of words through context, it got % 11.1 with a frequency of 1 time. This implies that there is a lack of this item throughout the reading exercise in the WB. The only example of this item is mentioned below:

**Unit 12 – Lesson 3 and 4 – Ex: 2 – P. 68**

![Text](image)

**Description of the activity:** students should read the different meanings of the same word then read the sentences followed. At this time, they have to guess the contextualized meaning of words according to context.
Recognize causes and effects

With regards to this item, it received the percentage % 33.3 with a frequency of a 3. This shows that there is a lack of this item in the exercises of the WB if compared with that of SB which is enriched with these questions more than others.

Example: Unit 18–Ex: 3 a and c – P. 103

Description of the activity: students should read the passage, then give causes of the required question by referring back to the target text.

Recognize clues and evidence

Concerning the item 'recognize clues and evidence', it got % 11.1 with a frequency of 1 time which shows that the WB must include more and more questions that embody this item. The following is an example which embodies this item.
Description of the activity: In this exercise, students should read the diary then decide who wrote it through certain clues found in the diary itself.
Commentary:

Concerning the exercises of the SB: It is worth noting that the other items of the analysis skill which are: "distinguishing facts from opinions, eliciting rules and principles, distinguishing main ideas from the supporting ones, reading between lines, and ordering items according to their importance" are NOT included at all. This result goes with that of Ali's study who affirmed that there is no employment of exercises that require students to infer the author's attitudes, distinguish facts from opinions, recognize pronoun reference, find meanings of new words in context, and relate texts to their personal experiences. Thus, the lack of these items is a sign of weakness in the reading exercises referring to analysis which is a higher order thinking skill. It is clear that five analysis sub skills out of the thirteen are not included throughout the reading exercises of the SB. It means that % 38.4 of the items which are supposed to be included as representatives of analysis skill is missing. This is considered as a high rate of deficiency in the reading comprehension exercises in SB. Thus, more enriching exercises are needed to fill this gap in the reading exercises concerning analysis skill. In spite of this deficiency, the reading exercises in English for Palestine Grade 8 are, to some extent, good but an effort from the curricula designers should be exerted to provide exercises that cover the missing part of the reading exercises related to the analysis skill. This result also matches the result of Rahman's study (2004) who concluded that the material and the reading exercises are not bad but more emphasis should be given to the higher order thinking skills.

The findings of the WB revealed that: 9 items out of the 13 were absolutely neglected, they are: distinguish facts from opinions, compare items in text, read between lines, explain the information introduced, elicit rules and principles, infer the mood, attitudes, or tones of the author, distinguish main ideas from the supporting ones, order items according to their importance, and break down the text into its main components. This supports the idea that the reading exercises of the WB need more enriching exercises that would cover the items of the analysis skill (especially the missing ones) to give students the chance to practice HOTS more properly.
Answer and discussion of the second sub question:

To what extent do the reading exercises in English for Palestine grade 8 include synthesis skill?

The following are the findings:

Nine items are included under this higher order skill, out of them, only five items are utilized while the other four are totally neglected. Here is the demonstration of the items that exist in the reading comprehension exercises of SB:

1- Predict events or solutions related to the text

In regard to requiring students to make predictions about the reading texts, it got the highest percentage of 36 with a frequency of 9 times in relation to the total number of the synthesis items which is 19. This means that this item occupies a vast space amongst the other items. In the researcher's opinion, it is an important item as it engages students in active thinking that enables them to imagine what will happen in the text and to generate ideas and solutions; in other words, to be close to the actions of the text.

The following is an example of predicting events or solutions:

Unit 6 – Lesson 1 and 2 – Ex:5 b, d, and e – P.37

5 Read and answer these questions.
   a  What does the shop assistant advise Sami to do, and why?
   b  What do you think Sami said before the police officer asks, ‘When did you lose it?’
   c  Why is Sami lucky?
   d  What must Sami do differently after this?
   e  What can Sami do after he leaves the police station?

Description of the activity: students have to read the text so that they could answer question b, they have to predict the missing part of the conversation between Sami and the policeman.

Sami: ................................................................. (missing information)

Officer: When did you lose it?
In question (d), students are required to suggest a solution for Sami in order not to lose his things again and finally, in answering question (e), What must Sami do differently after leaving the police station? Students are expected to predict actions that Sami may do after he leaves the police station.

2- Discuss to persuade

This item requires students to discuss issues related to the text when there is an argument. It had the percentage % 16 with a frequency of 4 times which implies that there is a place to practice such an item in the reading comprehension exercises. This sub skill occurred in the following example:

Unit 13 – Lesson 3 and 4 – Ex:1 a, b – P.78

Description of the activity: students are required to give or at least discuss with their teacher why their families have such names and how it is related to their ancestors. They also are going to say why their parents chose their given names and the reasons behind this.

3- Generate information related to the text

It is like the brainstorming process where students have to produce ideas that are directly linked to the text. It got % 8 with a frequency of 2 times. This item is exemplified in only two units throughout the reading exercises of the SB which are (unit 13 – lesson 3 and 4 – ex: 6 – p.79 and in unit 16 – lesson 3 and 4 – ex:3 – p.97) consider the following example:
**Description of the activity:** students are required to produce more questions that are related to the information introduced in front of them following the same model given to them in the exercise itself.

4 - **Combine his own information with the information in the text**

It is good to make relation between what is newly learnt to students' previous knowledge. This item requires students to connect between their pre – requisite and the information in the text. It got % 32 with a frequency of 8 time, which implies that it is used frequently throughout the reading comprehension exercises.

**Example: Unit 1 – Lesson 3 and 4 – Ex:5 – P.9**
**Description of the activity:** In question (5), students should say what is good and what is bad about both: the television and the mobile phone by combining their own information with the advantages and disadvantages of them. Then they should use the information found in the exercise and add their own ideas to make new sentences. They may also resort to the ideas in exercise 4 and adding their ideas to it to make a new idea.

5- **Connect knowledge from different sources**

This requires students to make a whole idea from many or different sources. It got % 8 with a frequency of 2 times. The following is an example from the SB.

Unit 1 lesson 3 and 4 Ex:1 P.8

![Lessons 3 and 4 Reading and speaking](image)

**Description of the activity:**

Students have to connect knowledge got from the pictures of the T.V screen on page 8 and from the map on the inside cover of the book and recall information from their schemata to carry out the activity.

As it is previously mentioned, this item has the frequency of 2 which means that this item is not available throughout the reading exercises of the SB.

Once again this result matches that of Ali (2010) who said that there is no employment of exercises that urge students to relate the information in the text to their own experiences or their own knowledge.

**Findings of the WB:**

To some extent, the exercises of the WB are more enriched with the synthesis skill if compared with the analysis one. Specifically, 6 sub skills out of 9 ones are included in the WB. Below is a detailed discussion of these items:
1- Rearrange information related to the text

In regard to this sub skill, it received % 5.3 with a frequency of once. It is exemplified in only one unit throughout the reading exercises of WB.

Unit 1 – Lesson 3 & 4 – Ex: 1 – P. 56

Description of the activity: students should rearrange the adjectives according to the right order in the suitable place.

2- Summarize text

Referring to the item "summarize text", students are to read the text then summarize the most important events in it. It got the percentage 5.3 with a frequency of 1. The only example of this item is introduced through the following:
Description of the activity: students are required to go back to their SB in order to make a summary of the important events that took place in the target text. Specifically, students have definite statements in the exercise and they have to complete them by referring to their SB, then write the complete summary.

3- Generate information related to the text

Regarding this skill, students have to produce more information related to the text, it got % 47.4 with a frequency of 9. This indicates that this sub skill occupies the biggest share among other sub skills of the synthesis skill.
Description of the activity: students, in this exercise, have to read the shopping list of Mariam, then produce and write more questions and answers as illustrated in the question itself.

4- Combine his own information with the information in the text”

concerning this item, it got % 15.8 with a frequency of 3. This implies that these questions which require students to combine their information with that of the text are found only three times throughout the reading exercises of the WB. The researcher sees that more questions regarding this particular sub skill should be added as it creates an atmosphere that is full of challenge and encouragement among students.
Example: Unit 17 – Lesson 3 and 4 – Ex: 3 – P. 99

Write two paragraphs about yourself. Use the sentence parts and put the verbs in the correct forms – -ing or infinitive.

a. My likes and dislikes
   / like (watch) / on TV / also enjoy (play) / in my free time / However, / not like (...) ... very much
   I like

b. My future hopes and plans
   / want (continue) at school until / Then, when / leave school, / hope (...) Then, one day in the future, / would really like (...)
   I want

Description of the activity: students are to write two paragraphs about themselves "what they like and do not like"; most importantly, they will relate their own information with the information provided in the WB.

5- Connect knowledge from different sources

This sub skill requires students to gather information from different sources to present a new whole. It got % 10.5 with a frequency of 2. It is exemplified in only two units throughout the WB which are (unit 9, part 1, ex:1, p. 50 and unit 13, lesson 1 and 2, ex:2, p. 72). The following is an example from:

Unit 13 – Lesson 1 & 2 – Ex: 2a – P. 72

Take Rose Hill’s part. State personal details from the computer screen. (For the full date of birth, note that all the girls are 14.)

a. Complete Rose’s first answer.
   I need personal details for some of the girls in Grade 8, Ms Hill. The first name on my list is Cortez.

   Her full _______ is _____________ and her date _______________. Her ______ number is ____________, and her full _____________.

   Her first name on my list is Cortez.
**Description of the activity:** students should read personal details given at the top of the page, then they have to form the details from the bubble to present the information as a whole.

**Commentary on this skill with regard to the SB:**

out of the nine criteria developed to evaluate the reading exercises of the SB, only 5 are mentioned throughout the units of the SB whereas the other 4 criteria which are: rearrange information related to the text, summarize texts, write or retell the material of the text using his own words, and hypothesis data were not mentioned at all. As synthesis is one of the higher order thinking skills, most of the studies reviewed earlier in this study such as that of Rivas (1999), revealed that the course books she evaluated did not seem to provide enough opportunities for the development of higher-level skills. In addition, they were deficient in various ways; especially, HOTS.

**The exercises of the WB,** on the other hand, do not include three items. These are predicting events or solutions related to the text, discuss to persuade, and hypothesize data. Although the exercises of the WB include some sub skills of the synthesis skill, they are not enough and they are not well distributed throughout the units of the WB. Besides, more questions should be provided to fill the gap of this skill.

**Answer and discussion of the third sub question:**

To what extent do the reading exercises in English for Palestine grade 8 include evaluation skill?

*The following are the findings:*

Only two items out of the four that belong to the evaluation skill are utilized throughout the whole reading comprehension exercises of the SB. Here are examples of the exercises available in the student's book:

1-Express his / her opinions towards situations in the target text

This item requires students to judge things according to their points of view. It got the highest percentage which is % 71.4 with a frequency of 5 times in relation to the total number of the evaluation skill exercises which are seven items.
Example: Unit 8 – Lesson 3 and 4 – Ex: 5– P. 51

5 Read each letter again. Say whether you agree or disagree.

Description of the activity: students are supposed to read what is written in each letter and express their opinions towards the ideas included.

2- Conclude themes of texts

Students are required to read the text and to get the main idea about which the text revolves. It got % 28.6 with frequency of 2 times in relation to the total number of the evaluation items.

This sub skill is available only in two units throughout the SB which are (unit 3, lesson 3 and 4, ex:2, p.20 and unit 12,lesson 3 and 4, ex:2,p.72)

This item is exemplified through the following:
Description of the activity: students should read the text carefully, then choose the best title for it according to their understanding. Thus, they conclude the theme of the text through examining it carefully.

Commentary:

Regarding the exercises of the SB: It is noticeable, from the above mentioned findings, that only two items out of the four ones related to the evaluation skill are covered. This result indicates a poor coverage of the evaluation skill in the reading exercises. This goes with Injeong et al (2009) who stated that text book's questions focus on low level concepts more frequently than higher level. It also goes with the findings of the interviews with the 8th grade English language teachers who assured (the majority of them) the idea that the evaluation skill is the least concentrated on throughout the reading exercises of both the SB and WB.
Consequently, more evaluative questions should be provided so that students would have the opportunity to express their opinions, feelings, and attitudes which pave the way to them to be creative and innovative thinkers.

Furthermore, in the WB, none of the exercises have treated this skill. This reveals that the exercises need more varied questions that enable students to express their opinions, feelings, and attitudes toward different situations in addition to enabling them to judge, investigate texts to explore fairness or bias. It is the top skill of Bloom's Taxonomy.

**Commentary on the results**

The researcher can conclude that HOTS, by and large, are not well covered, and this is not different from the majority of the results of the previous studies. To illustrate, there is a significant agreement among those studies that HOTS are not covered, not well treated, or well distributed. To exemplify; Rivas (1999), Alul(2000), Charles (1980), Ali (2010) and others agree on the deficiency in exercises that develop higher order thinking skills in textbooks.

5.3 Discussion of the results of interviews

**Answer and discussion of the fourth sub question:**

**What is 8th grade English language teachers' evaluation of the higher order thinking skills in the reading exercises of English for Palestine grade 8?**

**Answer and discussion of the first question of the interview:**

Based on your teaching experience, Do you think that HOTS are well-treated in the reading exercises? Please elaborate.

12 teachers out of 16 said that HOTS are not well-treated or rather neglected. They see that most of the pre-reading and the post reading questions treat the comprehension level of thinking or knowledge, comprehension and application (LOTS). The teachers ascribed the lack of HOTS in the reading exercises to the following three reasons:

- The passages are designed for comprehension.
• They think that most of the passages are scientific in form; hence, it is not easy for the author nor for the teacher to ask questions that include HOTS.

• The exercises after each reading text are not organized in a way that aid the implementation of Bloom's taxonomy.

• They believe that the authors have not graded the questions from low to high level.

Additionally, they posed the idea that reading exercises do not satisfy competent students who need challenging questions to promote their thinking abilities because they primarily focus on the lower skills such as knowledge, comprehension, and application.

On the other hand, four of the teachers declared that HOTS are fully covered and the exercises are above students' mental abilities. That is, students cannot guess the meaning of some vocabularies.

The result of the first question assures that % 75 of the target sample believe that HOTS are not available. On the other hand, % 25 think that HOTS are available but they are higher than the students' mental abilities. This means that the question whether the HOTS are well-treated in the reading exercises is answered negatively. That is, the HOTS are not well treated in the reading exercises of English for Palestine 8.

This result agrees with the results of analyzing the reading exercises of grade 8 English for Palestine textbook in the present study and Ali' study (2010) which analyzed the reading exercises of English for Palestine 9 and announced that HOTS were not well treated. She claimed:

there was no employment of exercises that require students to infer the author's attitude, distinguish between fact and opinion, recognize pronoun references, find meanings of new vocabulary in contexts, relate the text to their personal experience and to work out answers in pairs and groups. These skills are neglected in both the SB & WB.

Also it agrees with Hashemi's (2011) results who indicated that the textbooks are not acceptable from the teachers points of view.
Answer and discussion of the second question of the interview:

Based on your teaching experience, which of the HOTS are mostly used in the reading exercises?

14 teachers out of 16 (% 87.5) emphasized that the analysis skill is the most used and more presented than the other two skills. The analysis skill is introduced through guessing the meaning of some words and recognizing the causes of some events. Regarding the synthesis skill, it tests the ability to write, make summaries, and sometimes construct a comprehensive idea of the text. This skill comes after the analysis skill.

On the contrary, two teachers i.e. % 12.5 have different opinions. One of them said that evaluation is the most used while the other said that synthesis and analysis skills are the mostly used successively in the exercises.

The result of this question agrees with the result of analyzing reading exercises of English for Palestine grade 8 text book in the present study. That is, both found that analysis skill took the lion's share among the other HOTS.

Answer and discussion of the third question of the interview:

Based on your teaching experience, which of the HOTS are less concentrated on? Why?

15 teachers out of 16; that is % 93.75 asserted that evaluation exercises are excluded or rather neglected (do not exist). According to their opinions, this is due to the fact that students' minds are still limited. Thus, they cannot judge things appropriately or give opinions toward situations; therefore, the curriculum designers may exclude such activities because they know that the evaluation skill is the highest one in Bloom's taxonomy and students can just answer the simple and direct questions. Further, students do not have the ability to express opinions or judge things because their exposure to the language is poor. They do not practice it except in classrooms and in fact the curriculum, especially Grade 8, is so long and more complex than other textbooks in the prep stage. On the other hand, just one teacher (% 6.25) said that the analysis skill is less concentrated on without giving any explanation.
This result agrees with the results of previous studies such as Charles (1980) which concluded that 145 reading questions fell into the knowledge category of Bloom's Taxonomy, 400 into the comprehension category, 2 into the application category, and none of categories of analysis, synthesis, or evaluation were available. However, the researcher does not agree with the reasons of the lack of the other levels of HOTS; synthesis and evaluation, members of the target sample suggested. She believes that HOTS should be practiced as early as possible even in kindergartens. It is a matter of evaluation skill when a teacher in a kindergarten tells a fairy tale and asks students which character they love or hate more and why. Moreover, grade 8 students are 14 to 15 years old. Consequently, they are responsible in front of Allah to pray, to fast, to read Qur'an and think in its verses to learn lessons and to recognize Allah's wisdom. So, it could not be said that they are with limited minds to the extent that they cannot practice HOTS. They can do but the type of HOTS questions should match their level of thinking and their level of knowledge.

**Answer and discussion of the fourth question of the interview**

**Based on your teaching experience, do you think that the reading exercises improve students' HOTS? Why?**

Ten of the teachers (% 62.5) said that the reading exercises do not improve students' HOTS since the majority of the questions focus primarily on the comprehension level, and neglect the three skills (analysis, synthesis, and evaluation). In addition, some of those teachers said that they, as teachers, add additional exercises for toppers to satisfy their desire in learning or resort to the enrichment material prepared by UNRWA.

On the other hand, six teachers % 37.5 claimed that few of the reading exercises which promote students' HOTS are available; specifically, the analysis skill which is mostly used and focused. They think that the analysis exercises improve students' ability in reading critically, guessing meaning through context. However, they stated that still there is an urgent need to focus more on the other two skills; synthesis and evaluation. Some of those who think that the reading exercises in the target book lead to very little improvement in students' HOTS attribute this deficiency to the notion that the main focus of the reading exercises is exam oriented. That is, the purpose of the exercises is to enable students to pass exams not to think deeply of the
information introduced. Besides, the reading exercises are meant for low achievers who can just practice the lower skills represented in recalling, comprehension and application, not for high achievers. This result agrees with that of Injeong. et al (2009) who indicated that textbook questions focus on low – level spatial concepts more frequently than high – level spatial concepts; few questions require students to create various kinds of spatial representations; and textbook questions only rarely encourage higher – order cognitive skills. Generally, the study provided insights on the design and use of textbook questions to foster learning to think spatially.

Answer and discussion of the fifth question of the interview

What suggestions would you provide to enhance HOTS in the reading exercises in the target textbook?

Eight teachers i.e. % 50 said that it would be better if this textbook would be provided by more questions that include HOTS to suit students' level and environment. In addition, to provide students with a suitable and variant passages; e. g., stories, social problems, daily situations, and some useful scientific passages. Moreover, following a certain technique of asking the questions such as Bloom's taxonomy taking into account the gradation from simple to complex questions and to keep in mind students' needs. Thus, HOTS should be varied and short; i.e., each question should contain one specific idea. Specifically, HOTS should be covered and suit students' attitudes, interests, desires, and levels.

Two of the teachers i.e. % 12.5 suggested providing remedial and enrichment material that covers these three skills.

Three of the teachers i.e. % 18.75 suggested that English teachers should have more training courses in how to deal with these skills and how to improve students' abilities to apply HOTS in their life.

Two of the teachers; that is % 12.5 suggested that more time should be given to be able to practice these skills.

One teacher (% 6.25) said that it will be better if this textbook would be changed totally and replaced by another which suits students' abilities.
This agrees with Ming's study (2011) which confirmed that the assignments of pair work/group work and the discussion tasks, which ranked high as comprehension/application of Bloom's taxonomy, occupy very little in the units; therefore, teachers have to enhance the level introducing creative/analysis-based assignments. Further, he recommended that teachers should provide enrichment material to support HOTS activities.

*Answer of the fifth sub question:*

**What is a suggested framework that can be introduced for effective development of higher order thinking in *English for Palestine grade 8* textbook?**

In an attempt to answer this question, the researcher has suggested the following framework which consists of four steps to be followed by teachers when teaching HOTS. Examples of HOTS exercises are also provided.

*Objectives of the framework*

This framework puts forward a vision of a four-step procedure that may provide teachers with the practical form to be followed while training their students to practice HOTS. Moreover, it provides more reading exercises related to higher order thinking skills as an enrichment material to units (3,6,7,10,14) from the target book.
Step one:

Determine the learning objectives

A teacher should determine the learning objectives of the whole reading comprehension course and the objectives of each specific class as well. Objectives act as the base which defines the behaviors students should exhibit in class. Concerning the objectives of practicing higher order thinking skills, they should be constructed in the form of analysis, synthesis, and evaluation. To illustrate, analysis exercises should include questions such as classifying, comparing, and guessing meaning.

With regards to the synthesis skill, students are to synthesize, combine, reconstruct the text in a different form, rearrange, generate questions, hypothesize, and conclude the author's message.

At the level of evaluation, students are to judge, explore bias, describe characters, define the moral lesson.

The following are forms of higher order objectives on the level of analysis:

- Students should classify (certain items) in the text.
- Students should compare ................ with ....................... (items found in the text).
- Students should find causes of ....................... (items found in the text).
- Students should find results of ....................... (items found in the text).
- Students should guess meaning of words in context.
- Students should take notes.

On the level of synthesis:

- Students should summarize the text.
- Students should retell or rewrite the text using their own words.
- Students should generate questions related to the text.
- Students should suggest alternative solutions or ends.
- Students should combine their information with that of the text.
**On the level of evaluation:**

- Students should explore bias in the text, criticize, recommend, and evaluate.
- Students should elicit the theme of the text.

The above mentioned objectives should be introduced to students in form of action verbs or behavioral verbs. Consider the following examples:

- Compare wedding party in 'Palestine' to wedding party in 'Scotland'.
- Paraphrase the text in your own words.
- Express your opinion towards the following situation….

It is worth noting that well designed objectives lead to achieving the desired behavioral response.

**Step two:**

Students should be familiarized with the meaning of the behavioral verbs; for example, when students are expected to answer or respond to the following questions:

- Compare between the advantages and disadvantages of both mobile and telephone (Unit 1), they should be trained how to do systematic comparisons, and how to assign similarities and differences between them.
- When students are asked to guess the meaning of words in context, they should be trained to find clues in the text which help them to elicit the meaning.
An example of that is the following:

The word "instrument" in Unit 2, P. 12. To explore the meaning of this word, students should find clues that may lead to the meaning. They should look at the sentence before, the sentence after, and relate all to the whole text. At the same time the teacher guides students through the following questions about the sentence before:
Which music are they listening to? (tablaha)

After this, the teacher asks students to investigate the sentences after; for instance, he says: Look at the words al'oud and guitar. What are these?

Students may give different meanings, the teacher then picks the most appropriate one and writes on the board: tablah, 'oud, and guitar are musical *instruments*.

At this time, students get the meaning through exploring the relation among those items (tablaha, 'oud, and guitar). All of the words are related to music. So they are musical instruments (*these activities belong to the analysis skill*).

**Step 3**

*Reflecting*: students are asked to describe the thinking steps they go through to get the meaning of the target word or any thinking process they lead. Real practice and reflecting are necessary to build the students' ability to think critically. Accordingly, the whole process is a matter of interaction between the teacher and the students in one hand and students and the text in the other.

The role of the teacher as a guide is strong and clear in this early stage of practicing higher order thinking skills. Nevertheless, it faints gradually when students are used to doing it on their own.

**Step four**

*Feedback*: continuous feedback should be introduced by the teacher to the students after every activity on the cognitive level along with the psychological level. This is to assess the information they have got to motivate them making more efforts. In addition, feedback is based on a teacher's assessment of students' performance which enables him to know the level of achieving objectives.

It is necessary to mention that teaching reading comprehension should pass in three phases pre reading activities which focus on activating students' schemata to interact with the text, examining the title and the accompanied pictures to predict events related to the text in addition to the other two phases which are while and post reading in which each has its specific steps.
Practical example of HOTS activities:

In an effort to illustrate the application of this framework on English for Palestine Grade – 8, the researcher chose some units (3,6,7,10,14) and has suggested the following activities to develop HOTS. Before this, an example about the story "the tortoise and the hare" is provided as a model for teachers to follow when applying the suggested activities from the target book.

Procedures:

Procedural activities should be carried out in question-answer form. Questions can be used to support the gradual thinking process which passes from lower to higher level. For example, a teacher can go gradually from asking about direct facts in the story moving to analyzing, synthesizing, and evaluating. It is worth noting that each question should have a specific and clear objective and should lead to another one.

The Tortoise and the Hare

Once upon a time there was a hare who used to boast how he could run faster than anyone else. One day when he was teasing a tortoise for its slowness, the tortoise answered back: “Who do you think you are? There’s no denying you’re swift, but even you can be beaten!” The hare squealed with laughter.

The hare replied, “Beaten in a race? By who? Not you, surely! I bet there’s nobody in the world that can win against me, I’m so speedy. Now, why don’t you try?”
The tortoise accepted the challenge. A course was planned, and the next day at dawn they stood at the starting line. The hare yawned sleepily as the meek tortoise trudged slowly off. When the hare saw how painfully slow his rival was, he decided to have a quick nap. “Take your time!” he said. “I’ll sleep for sometime then I will win the race in a minute.

The hare woke up and gazed round, looking for the tortoise. But the creature was only a short distance away, having barely covered a third of the course. Breathing a sigh of relief, the hare decided he might as well have breakfast too, and off he went to munch some cabbages he had noticed in a nearby field. But the heavy meal and the hot sun makes him tired and sleepy. With a careless glance at the tortoise, he fell fast asleep again and was soon snoring happily. The sun started to sink, below the horizon, and the tortoise, who had been plodding towards the winning post since morning, was scarcely a yard from the finish. At that very point, the hare woke with a jolt. He could see the tortoise a speck in the distance and away he dashed. He leapt and bounded at a great rate, his tongue lolling, and gasping for breath. Just a little more and he’d be first at the finish. But the hare’s last leap was just too late, for the tortoise had beaten him to the winning post. Poor hare! Tired and in disgrace, he slumped down beside the tortoise who was silently smiling at him. “Slowly does it every time!” he said.
<table>
<thead>
<tr>
<th><strong>Timing</strong></th>
<th><strong>Question</strong></th>
<th><strong>Objective</strong></th>
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<tbody>
<tr>
<td><strong>Pre-reading</strong></td>
<td>What is the story about?</td>
<td>To elicit the main idea. (Synthesis)</td>
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<td></td>
<td>Which of the two animals can run faster?</td>
<td>Utilizing schemata to interact with the text.</td>
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<tr>
<td><strong>While reading</strong></td>
<td>Who are the main characters?</td>
<td>To recognize facts in the text.</td>
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<td></td>
<td>Why did the hare teas the tortoise?</td>
<td>Define a cause (analysis)</td>
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<td></td>
<td>What did they agree about?</td>
<td>To recognize facts in the text.</td>
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<td></td>
<td>Who do you think will win the race? Why?</td>
<td>To predict events (synthesis).</td>
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<tr>
<td></td>
<td>How many times did the hare stop?</td>
<td>To recognize facts in the text.</td>
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<tr>
<td></td>
<td>How many times did the tortoise stop to rest?</td>
<td>To recognize facts in the text.</td>
</tr>
<tr>
<td></td>
<td>Who won the race?</td>
<td>To recognize facts in the text.</td>
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<td></td>
<td>Was the result expected? Why?</td>
<td>To guess events and give reasons (prediction and analysis)</td>
</tr>
<tr>
<td><strong>Post reading</strong></td>
<td>match the following traits with the characters and say why?</td>
<td>To judge or give opinions about the characters and then justify their traits</td>
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</table>
(analysis, evaluation, and synthesis') |
<table>
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<tbody>
<tr>
<td><strong>hare</strong></td>
<td><strong>Why</strong></td>
</tr>
<tr>
<td>Proud</td>
<td></td>
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<tr>
<td>Playful</td>
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<tr>
<td>Careless</td>
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<tr>
<td><strong>Tortoise</strong></td>
<td><strong>Why</strong></td>
</tr>
<tr>
<td>Wise</td>
<td></td>
</tr>
<tr>
<td>Insistent</td>
<td></td>
</tr>
<tr>
<td>Hard worker</td>
<td></td>
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</tbody>
</table>
| Suggest an alternative end to the story. | To suggest possible end.  
( Synthesis) |
| Rearrange the following items according to the sequence of the story. | To rearrange events in the text.  
( Synthesis) |
| summarize story in your own words. |  
( Synthesis) |
The following suggested activities are from *English for Palestine Grade 8*  
*Unit (3)*

**Lessons 3 and 4**

**Vocabulary and reading**

1. Look at the diagram and answer these questions.
   a. What is at the centre of the solar system?
   b. How many planets are there in orbit around it?
   c. Which planet's name is not shown? What is its name?

   ![Diagram of the solar system]

2. Read the text and choose the best title.
   - Our solar system and the universe
   - Mars, our second home
   - The story of humans in space

---

The solar system is our small part of the universe. We have the sun at its centre, and there are eight planets in orbit around it. The third one from the sun is very special. It is our only home, and we call it Earth.

Our journey into space began long ago. In 1957, the Soviet Union launched the first satellite into orbit. This was Sputnik 1. Four years later, the first spacecraft with a human followed. This was the Soviet astronaut, Yuri Gagarin.

Scientists then started using satellites in new communications systems. In 1960, an American satellite sent back the first weather pictures. In 1962, another started sending TV pictures around our planet. These were the first of thousands of satellites like Arab Sat 1 that the world now uses.

The Soviet Union and the USA began racing deeper into space. In 1969, Apollo 11 carried the Americans Neil Armstrong and Edwin Aldrin to their famous walk on the moon. Since then, spacecraft have sent back pictures and information from all over the solar system – even far-away Neptune.

More recently, the world has learned to work together and share the huge costs of space exploration. There have already been several small Soviet and American space stations. Now, sixteen countries are together building a huge new international space station (ISS).

We have already done a lot in space, but this is only the start. ISS will soon become a wonderful place for scientists to study Earth and to launch missions farther into space. Scientists are also planning for people to live on the moon and on Mars. Many say that it is possible to get valuable metals and other minerals from the moon. Others believe that humans can slowly produce an atmosphere like Earth's on Mars. From this, oceans and forests may develop. And so we humans might in the future have a second home far from Earth.

---

| Length: 108m  |
| Width: 88m   |
| Orbit: 400km above Earth |
| Speed: 28,000kph |
| Astronauts: as many as 7 |
On the level of the analysis skill, questions may be as the following:

Why should nations work together in space exploration? (learners have to find reasons).

Decide whether the following sentences are facts or opinions. Write (F) for facts and (O) for opinions:

- Earth is the only home for man. (  )
- Living on the moon or March is fantastic. (  )
- Yuri Gargarin was the first man to travel to the moon. (  )
- Man will soon develop an atmosphere like the earth on the moon. (  )

On the level of synthesis:

What would happen if man lived on the moon.

(learners have to hypothesize, generate or predict events).

On the level of evaluation:

To judge the author's attitude towards exploring the space, students should choose the correct answer from the following:

- The author is interested in exploring the space.
- The author thinks that exploring the space is a matter of wasting wealth.
- The author thinks that exploring the space is a crazy project.
Lesson 3 and 4
Reading and vocabulary

1. Compare the first picture below and the picture on the right at the start of the unit.

2. Look at the ‘page’ below and the title. Answer these questions.
   a. Where might the text be from, and who might it be for?
   b. What do you think the text will be about?

The meaning of money

Every day, people buy things with coins and banknotes – money. But what is money?
People have always needed to trade with each other, and barter is the oldest way. For example, two farmers might exchange thirty sheep for ten cows.

But one farmer might have nothing that the other wants. Then they need something that they can use instead of sheep or cows. They need money. And in Mesopotamia (modern Iraq), people were already using money – pieces of silver – by 2500 BC.

By 1600 BC the Greeks were making coins. And by 100 AD, the Romans were producing eight different sorts of coin – from valuable gold coins down to less valuable copper ones.

However, we do not have to make money from a valuable metal like gold. Money can be anything with a value that everybody accepts. Then they can all use it to pay for things.

A true story shows this clearly. In 1685, the king of France did not send any money to pay his army in Canada. While the men were waiting for their pay, they ran out of money. When this happened, the local shops closed their doors. Soon the men were getting hungry – and angry. While this was going on, their commander suddenly had an idea. Many of the men had playing cards, and the commander told the officers under him to collect the cards and cut them into pieces. They then wrote money values on them and gave them to everybody as their pay.

The army accepted them and the shops did too, so the men could buy food and eat again. Everybody was happy because the cards were like a promise. People knew they could exchange them for ‘real money’ when the king’s ships arrived.

Think about it. Those cards were just like the paper banknotes that we use today! They’re the same thing. And today, the ‘real money’ is the gold that every country’s national bank keeps. This is its promise that its banknotes have real value.
On the level of analysis:

*Guess the meaning of the following words through context:*

1- Wallet  2- describe  3- ticket

On the level of synthesis:

- What would you do if you were in Sami’s position.
- Introduce a piece of advice to Sami.
- What is the lesson learned from the story.

On the level of evaluation:

*Choose the best answer from a, b, or c:*

The girl who took the money to the police station is:

A- foolish

B– honest

C– does not like money *(Students have to judge the girl's manner).*
Unit (7)

Lessons 3 and 4
Reading and vocabulary

1. Look at map 1 and answer these questions.
   a. Is Palestine nearer the Equator or the North Pole?
   b. Does South America reach the Antarctic Circle?

2. Look at the picture and map 2 and answer these questions.
   a. What do you think the text will be about?
   b. What do you think the two dotted lines (- - -) on map 2 might show?

3. Read to find answers to 2a and b.

First to the South Pole

As 1910 ended, two famous explorers were sailing south to the Antarctic, the world’s last unknown region. The Norwegian, Roald Amundsen, and Captain Robert Scott, from Britain, were both racing to reach the South Pole first. But only one could win.

By early January 1911, both men had reached the Antarctic. They then built their camps in different places along the frozen coast. There they prepared for the dangerous 1,500-kilometre journey to the Pole. Soon, the days were getting shorter, colder and darker, and by the end of March the sun had disappeared. All through the dark Antarctic winter night, each team moved food to camps that they had built along their different routes.

On 18th October, Amundsen’s group left their winter camp – soon after the sun had finally appeared again. Scott started on 1st November.

Amundsen had prepared well, had good weather and travelled fast. However, Scott’s team had terrible weather, and their journey was slow. When they reached the Pole on 16th January 1912, the Norwegian flag had been there since 14th December. Amundsen had got there over a month before them, and they had lost the race.

That was terrible, and so was the journey back. There was not much food, and the storms began again. After seven more weeks, Scott’s team made their last camp on 11th March. They had no more food and no more strength. They died a few days later, just fifteen kilometres from a food camp that they had built the year before.

They did not die for nothing. The Scott and Amundsen missions were the start of a long journey of scientific study. Today, scientists live and work all around the Antarctic. There they study the ice, the atmosphere, the ocean and the wildlife. Through this, they are learning more and more about Earth’s climate and environment.
On the level of analysis & evaluation:

In line 21 "They did not die for nothing" Do you think that the author's belief is correct? Why?

*Evaluation:* Learners have to express their opinions towards the author's belief and to decide whether it is right or wrong.

*Analysis:* Learners have to recognize causes.

On the level of synthesis:

What would have happened if:

a- The teams had travelled together.

b- They had had more food. (Learners have to produce ideas or make predictions about the text).
Lessons 3 and 4
Reading and vocabulary

1 Look at the four speakers and answer these questions.
   a. What are they wearing?
   b. Why do you think they are wearing these things?

2 Read and check your answers to 1b.
   I like my uniform. It shows that I’m a member of an important group of people – the police. I’m proud that we help look after our country and its people, and so I wear the uniform proudly, too. I always keep it clean and I try hard to look smart at work. In the police, we all feel the same. We believe that people trust the police more because we dress as smartly as possible. That helps us do our job well.

Deema, from Palestine

During our long, cold winter, everything is frozen up here in the north. We have to wear warm sweaters and thick jackets and trousers if we want to go outside in the snow. But the summer’s completely different. For three short months it’s beautiful and warm, and we can dress much more comfortably in just thin cotton T-shirts and jeans or shorts.

Bill, from Canada

I don’t think about clothes all the time, but today I’m dressing as nicely as possible. I’m wearing my long, green dress and my new jacket. We’re having a big family party, you see, and I want to look my best. Everybody feels the same. We all want to try our best to dress nicely because it’s a special family day. If we don’t try our hardest, it’s like saying the family isn’t important.

Maria, from Mexico

In my work there are lots of dangers. People used to be less careful than they are now, and accidents used to happen more often than they do today. Today, we do things much more carefully, and we protect ourselves as well as we can. We always wear hard hats, heavy safety boots and thick gloves. In our hot climate, they’re very uncomfortable, but it’s better to be uncomfortable than to get hurt or to die in a horrible accident. As people say: ‘Better safe than sorry.’

Abdul-Salam, from Kuwait
On the level of analysis:

*Compare between the weather in north Canada and Palestine*

<table>
<thead>
<tr>
<th>Country</th>
<th>Winter</th>
<th>Summer</th>
</tr>
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<tbody>
<tr>
<td>Palestine</td>
<td></td>
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<tr>
<td>Canada</td>
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On the level of synthesis:

*Write a paragraph about the types of clothes*

This question belongs to the synthesis skill where students should write coherent sentences from their own, it is a productive process.

the level of evaluation:

*In paragraph "3"

"if we don’t try our hardest it's like saying the family isn't important"

Is it a fact or opinion? Express your opinion towards what is said
Lessons 3 and 4
Reading and vocabulary

1 Discuss these questions.
   a. What does the map in the text show?
   b. What famous building does the photo show?
   c. What do you already know about Islamic Spain?

2 Read to check your answers to 1a and 1b – and to find out more about Islamic Spain.

The Muslims in Al-Andalus

People often say that East is East and West is West, and that the two cannot meet. However, Spanish history tells us something different. In Spain, East and West met for almost 800 years. They sometimes fought, but there was also real contact across cultures.

The story of Islamic Spain began in 711 AD. The conquest began in that year and the Muslims took the country over very quickly.

They came with new skills and ideas, and they completely changed the land that they called Al-Andalus. They brought new crops like cotton and lemons. They also brought better ways of farming. For example, they built channels that carried river water to the crops. Al-Andalus was soon rich.

The Muslims needed a centre of government, and they set it up in Cordoba. This then quickly became a great city – as important as Baghdad. Everywhere, they built wonderful mosques and palaces and beautiful water gardens. Al-Andalus became a leader of the Islamic World. To Europeans, it became the centre of civilisation.

It became famous for its science, medicine, architecture, and its arts and crafts. It was here that Ibn Al-Khatib worked out how diseases pass from person to person. It was here that Al-Zahrawi developed many new medical operations. And it was here that Al-Idrisi drew the first scientific world map. Students in both East and West studied the work of people like these for many years, and we still remember their names today.

Spain is now a modern country with busy roads, large cities and millions of tourists on the beaches. But turn away from all this, and you will find a different Spain. Walk through the streets of old Cordoba. See the wonderful buildings and gardens of Alhambra Palace. There you will discover that ancient Al-Andalus still lives.

Did you know . . . ?
• Lots of things that we use today come from Islamic Spain – glass mirrors, for example.
• The number ‘0’ was first used there. Without zero, modern mathematics is not possible.
On the level of analysis:

Classify:

Glacier - architecture - Plain – science – Baghdad - medicine – Cordoba — cliff – Granada.

<table>
<thead>
<tr>
<th>Studies</th>
<th>Cities</th>
<th>Natural places</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On the level of synthesis:

Write two sentences about Islamic effects in Spain.

_____________________________________________________________________

On the level of evaluation:

Choose the best answer and say why?

When Muslims occupied Spain:

- They stole its wealth.
- They built a great civilization.
- They forced people to be ignorant.
5.4 Conclusion

The overall findings of this study demonstrated that higher order cognitive skills in reading comprehension exercises are not well covered, not well treated nor well distributed. There is a lack of progression from the lower cognitive skills to the higher ones. To illustrate, out of the twenty six categories adopted as criteria to evaluate higher order thinking skills, only fifteen are covered in the student book i.e. % 58 while % 42 were neglected. Moreover, in the work book only ten skills i.e. % 46 are covered while %54 are neglected.

As to the treatment of the exercises, mostly the same form of questions was introduced, For instance, all the questions related to recognize causes and effect sub skill are treated with why questions. In addition, only taking notes exercises are related to analyzing text into its components.

As to the distribution of exercises, some skills have a high rate of frequency, others have a very low rate of frequency. e.g., the sub skill 'predicting events or solutions related to the text' takes place 9 times whereas 'discuss to persuade' sub skill takes place only once. There is an agreement between the results of the interview and the results of the target book analysis. In that, both agree on the lack of higher order thinking skills in the text books and on the unbalanced distribution of them throughout the book in addition to the shortage of variety of questions.

These findings do not match the general objectives of teaching reading in English for Palestine stated by the Palestinian Ministry of Higher Education which focus on higher order thinking skills such as generating questions about a reading text, inferring, judging or evaluating questions, recognizing proform referents, summarizing a reading text, making predictions about a reading text, making inferences about a reading text, identifying the main idea of a reading text, deducing meaning of unfamiliar words from context, skimming for gist or general impression of text or graphics, distinguishing fact from opinion, inferring mood and author's attitudes or tone, interpreting information presented in diagrammatic display, relating text to personal experience, opinion, or evaluation, analyzing components of text such as setting, theme, character, and extracting and synthesizing information from different sources.
The researcher attributes this weakness to the following reasons:

- The author of the book is not aware of the necessity of providing higher order thinking skills into the reading comprehension exercises in English for Palestine stated by the Palestinian Ministry of Higher Education.
- Designing activities related to higher order thinking skills needs producing high quality of strategies which need much time and effort.
- The time allocated to teaching reading comprehension is not long enough to provide such advanced activities.

In the light of these findings, the researcher recommends the following.

5.5 Recommendations:

Based on the findings of the study, this section presents some recommendations with a view to modify the reading exercises in English for Palestine Grade 8 as follows:

1. As the present syllabus of English for Palestine Grade 8 does not include enough higher order sub skills of reading, it is recommended that the book designers should modify the reading exercises to include higher order thinking skills such as predicting, using contextual clues, guessing meaning of words through context, interpreting texts, evaluating a text critically, recognizing the author's position and bias, distinguishing between facts and opinions, understanding author's tone, mood and attitude, etc.

2. English supervisors are recommended to prepare enrichment materials that provide teachers with more exercises that cover higher order thinking skills. In addition, they should hold more workshops to train the English teachers how to develop and enhance students' thinking skills.

3. The researcher recommends that the English language teachers should provide students with more reading activities, help them with hints and clues, and train them to practice the cognitive and meta cognitive strategies while reading. In this regard, teachers should not lecture all the time, and explain everything to the students but they should encourage the students to read and find out by themselves the different layers of meanings in the texts.

4. It is recommended that the textbook should provide pair work and group work activities to improve the outcomes of reading processes. Furthermore, it is
recommended that the reading exercises should engage students in 'word attack', 'sentence attack' and 'text attack' activities. Accordingly, students should be active organizers, not passive recipients.

5.6 Implementation:

The researcher also recommends:

1. Conducting other studies related to the current one in other Palestinian English textbook series to see to what extent the reading exercises match the developed criteria in this study.

2. Carrying out other similar studies that evaluate HOTS in other skills such as speaking, writing, or listening.

3. Conducting studies on measuring to what extent the goals of teaching reading stated by the Ministry of Education have been accomplished by teachers.
References


Appendix (1)
Consultation Form of an Analysis Card

The Islamic University of Gaza
Faculty of Education
Department of English Teaching Methods
MA Program

An Invitation To Judge a Checklist

Dear Dr …………………………………………………

The researcher Ayat Seif is carrying out an M. ED thesis entitled

Evaluating the Higher Order Thinking Skills in Reading Exercises of English for Palestine Grade 8

The researcher is suggesting the following checklist as a criterion to measure the availability of higher order thinking skills referred to as (HOTS) in English for Palestine, grade 8 textbook. It is worth mentioning that the items of the checklist are based on literature related to the target evaluation, especially Bloom's taxonomy. In addition, the checklist covers the three levels of HOTS (Analysis, Synthesis, and Evaluation).

I will be so grateful if you provide me with your comments related to the effectiveness of the criteria used in this checklist.

Any modifications, additions, or omissions will be taken into consideration.

The researcher
Ayat A. Seif

Comments:

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

Referee’s name:

………………………………..
1- Items related to the analysis skill:

The reading exercises enable students to practice the down listed activities:

<table>
<thead>
<tr>
<th>NO</th>
<th>Items</th>
<th>Agree</th>
<th>Disagree</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Distinguish facts from opinions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Categorize information in text.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Compare items.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Guess meaning of words in context.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Read between lines.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Recognize causes and effects.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Identify the components of texts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Explain the information introduced.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Order items according to their importance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Recognize clues and evidence.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td>Find correlation between causes and effects.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Elicit rules and principles.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Examine the text for consistency and adequacy.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Subdivide information.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>15</td>
<td>Illustrate information.</td>
<td></td>
<td></td>
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<tr>
<td>16</td>
<td>Infer the mood, attitudes, or tones of the author.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Distinguish main ideas from the supporting ones.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2- Items related to the synthesis skill:

The reading exercises enable students to:

<table>
<thead>
<tr>
<th>No</th>
<th>Items</th>
<th>Agree</th>
<th>Disagree</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rearrange information in texts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Summarize texts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Construct new material based on the target text.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Connect knowledge in different situations.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>Substitute ideas in the text with one's own idea.</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>Write or retell the ideas of the text using his own words.</td>
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<td></td>
</tr>
<tr>
<td>7</td>
<td>Combine his own information with the information in the text.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Predict events or solutions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Discuss to persuade.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Hypothesize data.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Generate questions about the reading texts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Extract information from several sources to present the reading texts.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3- *Items related to the evaluation skill:*

The reading exercises enable students to:

<table>
<thead>
<tr>
<th>No</th>
<th>Items</th>
<th>Agree</th>
<th>Disagree</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Judge the consistency of the written material of the text.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Appraise the value of the text concerning accuracy of information and soundness of argument.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>Judge adequacy of the data which support conclusion.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Express his/her opinions towards situations in the target text.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Conclude themes of texts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Recognize subjectivity and objectivity.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Make choices based on reasoned argument.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Justify information or events.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Defend situations.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Final Version of the Criteria of Evaluation

After showing the suggested criteria to the referees, they omitted and modified some of these criteria to be more suitable than before. The final shape of the content analysis card is adopted to be like the following:

<table>
<thead>
<tr>
<th>Analysis Skill</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Categorize information in text.</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
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<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
</tr>
<tr>
<td>3- Compare items in text.</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
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<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
<td>W</td>
<td>S</td>
</tr>
<tr>
<td>5- Read between lines.</td>
<td>S</td>
<td>B</td>
<td>B</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
</tr>
<tr>
<td>12- Order items according to their importance.</td>
<td>S</td>
<td>B</td>
<td>B</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
<td>B</td>
<td>W</td>
<td>S</td>
</tr>
</tbody>
</table>
### Synthesis skill

**Items:**
1. Rearrange information related to the text.
2. Summarize texts.
3. Construct a comprehensive from of the text.
4. Write or retell the material of the text using his own words.
5. Predict events or solutions related to the text.
6. Discuss to persuade.
7. Hypothesis data.
8. Generate information related to the text.
9. Combine his own information with the information in the text.
10. Connect knowledge from different sources.

### Evaluation

**Items:**
1. Express his/ her opinions towards situations in the target text.
2. Conclude themes of text.
3. Recognize subjectivity and objectivity.
4. Make choices based on reasoned argument.
Appendix (3)
Consultation form of an interview card

The Islamic University of Gaza
Faculty of Education
Department of English Teaching Methods
MA Program

Consultation Form of an Interview Card

Dear Dr. , ………………………………….

The researcher Ayat Saif is carrying out an M.ED thesis entitled

Evaluating the Higher Order Thinking Skills in Reading Exercises of
English for Palestine Grade 8

The purpose of the interview is to check whether the higher order thinking skills are available in the reading exercises or not.

I would be so grateful if you could provide me with comments on:

1- the suitability of the questions to the purpose of the interview.
2- the comprehensiveness and clarity of the questions.

Any modifications, additions, or omissions will be taken into consideration.

Comments:

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
Referee's name:

........................................................................................................................................

Thanks in advance
1- Based on your experience in the field of education, do you think that higher order thinking skills are well – treated in the reading exercises? if yes, explain?

………………………………………………………………………………………
………………………………………………………………………………………
………………………………………………………………………………………
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2- Based on your experience in the field of education, which of the higher order thinking skills are mostly used in the reading exercises?

………………………………………………………………………………………
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………………………………………………………………………………………

3- Based on your experience in the field of education, which of the higher order thinking skills are less concentrated on? Why?

……………………………………………………………………………………
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4- Based on your experience in the field of education, which of the higher order thinking skills are more used / exploited by students (raise more motivation, enjoyment, time on task)? How?

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5- Based on your experience in the field of education, what are the skills that students are more involved in? How?

……………………………………………………………………………………
……………………………………………………………………………………
……………………………………………………………………………………

6- What further suggestions would you provide to enhance the higher order thinking skills in the reading exercises in our textbook?

……………………………………………………………………………………
……………………………………………………………………………………
Appendix (4)
The final version of the interview

After consulting the referees, they made some comments and modifications regarding the questions of the interview. In the light of their comments and suggestions, the final version of the questions were the following:

1- Based on your teaching experience, do you think that higher order thinking skills are well – treated in the reading exercises? Please elaborate.

2- Based on your teaching experience, which of the higher order thinking skills are mostly used in the reading exercises?

3- Based on your teaching experience, which of the higher order thinking skills are less concentrated on? Why?

4- Based on your teaching experience, do you think that the reading exercises improve students' higher order thinking skills? Why?

5- What suggestions would you provide to enhance higher order thinking skills in the reading exercises in the target book?
Appendix (5)
The List of Juries

1. Dr. Akram Habib  PhD. in TEFL  The Islamic University
2. Dr. EzzoAfana  PhD. in statistics  The Islamic University
3. Dr. Hassan Al Nabih  PhD. in TEFL  The Islamic University
4. Dr. Kamal Mortaja  PhD. in TEFL  The Islamic University
5. Dr. Khader Khader  PhD. in Linguistics  The Islamic University
6. Dr. MosheerAmer  PhD. in TEFL  The Islamic University
7. Dr. Nazmi Al Masri  PhD. in TEFL  The Islamic University
8. Dr. Sadeq Firwana  PhD. in TEFL  The Islamic University
9. Dr. WalidAmer  PhD. in Linguistics  The Islamic University
10. Mr. Mohammad Yousef  B.A. in English  A researcher at (QCERD)
11. Mrs. MahaBarzaq  M.A. in TEFL  A researcher at (QCERD)
12. Mrs. Suha Dawoud  M.A. Student  Supervisor at UNRWA Schools
13. Mrs. Zulfa Bard El-Deen  M.A. in TEFL  Gaza University
Appendix (6)
A Defining Sheet of What HOTS Mean

A brief guide of what higher order thinking skills (HOTS) mean:

Bloom's taxonomy is one of the most well known taxonomies in the educational field which defines the learning objectives. This taxonomy is divided into three main domains: cognitive, affective, and psychomotor domain.

The cognitive domain, which is the researcher's concern here, is subdivided into six categories which are: knowledge, comprehension, application, analysis, synthesis, and evaluation. Specifically, the first three categories are known as lower order thinking skills (LOTS), while the other remaining skills (analysis, synthesis, and evaluation) are known as higher order thinking skills (HOTS). HOTS include analysis, synthesis, and evaluation which will be discussed briefly below:

Analysis: It refers to the ability to break down a concept into parts. This process may include the identification of the parts and the analysis of the relationships between parts. A learner may distinguish facts from opinions, categorize information in the text, guess meaning of words in context, read between lines, recognize causes and effects, order items according to their importance, and/or infer the mood, attitudes, or tones of the author.

Synthesis: It refers to the ability to form something new. This process may involve the production of a unique composition (theme or speech), a plan or an original abstract idea.

Learners should rearrange events in the text, write the ideas of the text using their own words, predict events or solutions, and/or connect the information in the text with their own information.

On the level of Evaluation, learners should judge the value of some material and justify the judgment based on criteria. As a result, learners are expected to express opinions toward situations in the target text, conclude themes of texts, recognize subjectivity and objectivity, and/or make choices based on reasoned argument.
Appendix (7)

Permission for applying the interview

Evaluating the Higher Order Thinking Skills in Reading Exercises of English for Palestine Grade 8