

## CHAPTER THREE

### RESEARCH METHODOLOGY

The main purpose of this study is to examine the overarching approaches to second language reading instruction as reflected in the Yemeni EST 3rd grade secondary school reading curriculum. Moreover, the study investigates how the English Language for Science and Technology (EST) reading curriculum prepares the senior level (3rd grade) of Yemeni secondary school students for reading in English at the tertiary level. As such, this Chapter discusses the research methodology of current study in terms of the research design, research questions and their rationales, research context, sample of the study, method of data collection, method of data analysis, reliability procedures, and finally, the interpretation techniques of the findings.

### 3.1 RESEARCH DESIGN

In the research process, selecting the most relevant method is very important because it helps the researcher to use the most appropriate instruments, collect valid data, and interpret the data in line with the research questions. In other words, it is the role of the researchers to explain the overall strategy of how the research questions would be answered; in research methodology this procedure is known as the “*research design*”. The research design is recognized as the principal plan, which identifies the procedures and methods for collecting and analysing the required information (Saunders et al., 2007).

Pertinent literature in research methodology has identified different research methods. But they differ according to the purpose; i.e. *exploratory studies*, *descriptive studies*, and *explanatory studies*. As it is attested by Saunders et al. (2007), the exploratory studies are “A valuable means of finding out what is happening; to seek new insights; to ask questions and to assess phenomena in a new light” (p. 133). On the other hand, the descriptive studies are “Undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation” (Sekaran, 2003, p.121); while the explanatory studies are usually guided by initial hypothesis, which explain the cause and effect relationships among variables. Compared to the descriptive studies, the explanatory studies attempt to “explain the reasons for the phenomenon that the descriptive study only observed” (Cooper & Schindler, 2003, p.20) and is usually guided by initial hypothesis. Since the current study does not focus on examining a previously generated hypothesis or on examining cause-effect relationships among variables, it was found more rationale to be explorative in nature.

The present study is a qualitative exploratory case study which applies content analysis procedures.

### 3.1.1 Qualitative Research

Qualitative research refers to “a systematic, inductive, subjective approach used to understand, interpret, describe life experiences and give them meaning as well as develop a theory on a phenomenon” (Burns & Grove 2003, p. 356). Qualitative research is typically represented with words rather than statistical procedures and numerical figures; nonetheless, a small part of the data in this study were analysed by using particular formulas and hence, the results were shown in tables containing frequencies, percentages and explanatory Figures.

In qualitative research design, the researchers tend to use different methods such as participant observation or case studies which result in a narrative and descriptive account of a setting (Parkinson & Drislane, 2011). The qualitative research design was selected in the current study due to the curious of the researcher to understand the meaning of the phenomenon under study (Merriam, 2009), that is, how EST reading curriculum prepares secondary school level for academic reading at the tertiary level.

### 3.1.2 Explorative Study

The exploratory research design is the best design to provide and discover new ideas and knowledge about the phenomenon under study (Burns & Grove 2003; 2001; Creswell, 1994). According to Yin (2003) “A ‘what’ question is a justifiable rationale for conducting an exploratory study” (p. 6), thus, selecting the qualitative explorative study to be the research design of current study will lead to answer the seven “what”

research questions successfully and to understand what has been happening in the context of the current study.

In this study, the researcher selected the exploratory case study to discover new ideas and insights and to add to the knowledge of the phenomenon of study, which is exploring the connection between EST 3rd grade secondary school reading curriculum to the reading comprehension problems at the university level. Gaining such insights and knowledge will help the research to offer recommendations for reformulating the current Yemeni EST reading curriculum to meet the English language demands at the tertiary levels.

### 3.1.3 Case Study

Merriam (2009) stated that a case study refers to "an in-depth description and analysis of a bounded system" (p.40); a bounded system refers to a single unit which is related to the phenomena of study. Case studies mostly focus on a single person, unit, program or institution. In terms of a research process, a case study is an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2008). The findings of case studies are usually rich, thick description of the phenomenon under study (Merriam, 2009). In present study, the researcher selected a case study in order to gain an in-depth knowledge and comprehensive description about the Yemeni EST 3rd grade reading curriculum.

### 3.1.4 Content Analysis

Content analysis method is one of today's most extensively employed analytical tools (Allen & Reser, 1990). Content analysis is a research method that is applied to some written materials in order to recognize their specific characteristics (Ary et al., 2006). According to Weber (1990), this content analysis method allows the researcher to discover and describe the most noticeable characteristics of a phenomenon. The main objective of using this method of analysis in current study is to explore the aims and objectives of the study and to get deep information and understanding of the phenomena of interest.

Previous studies, which examined English as a second or a foreign language curriculum, used content analysis (Rahim, 2014; Heilmann & Korte, 2010; Sidek, 2010; Hassen, 2009; Xiohong, 2009). For example, Heilmann & Korte, (2010) applied quantitative and qualitative content analysis. They used the software tool "WordSmith" for the quantitative part of the analysis. They first found the frequency analysis based on the absolute numbers of the items of interest in the curricula, which was the 'quantitative' part of the analysis; and then, they provided a more 'qualitative' approach with the analysis by providing description and context information qualitatively. Xiohong, (2009) used qualitative data analysis to analyse the data collected through interviews through coding procedures. In addition, Hassen (2009) used qualitative content analysis to analyse crescent English course for secondary school in Yemen and the findings presented in terms of the frequencies and percentages. And Rahim (2014) and Sidek (2010) used qualitative content analysis to analyse the Malaysian Form three and Form five, respectively, EFL reading curriculum and presented the findings in terms of percentages. Following Hassen

(2009), the current study uses qualitative content analysis to analyse the EST 3rd grade secondary school reading curriculum and the findings presented in terms of the frequencies and percentages.

Generally, curriculum documents are comprised all of the governmental policy documents, curriculum strategies and guidelines, textbooks, course syllabi, syllabi for national examinations, teaching plans prepared by teachers, tests, and so on (Akhtar, 2004). Therefore, in this study, documents such as the Yemeni English for Science and Technology (EST) 3rd grade secondary school course book, work book, teacher's book, as well as the transcripts collected from classroom observation were reviewed. Previous studies have been examined the Yemeni EFL secondary school curriculum from various perspectives. For example, Hassen (2009) utilized content analysis method to analyse the content of 10th, 11th and 12th Crescent English Courses for Yemen in relation to the English courses that are needed for the Yemeni EFL learners in secondary schools. Xiohong, (2009) used content analysis to provide supplementary information for the study. Sidek (2010) used the content analysis to analyse the overarching approaches reflected in the Malaysian Form Five EFL reading curriculum as well as to find out who that curriculum prepares the Malaysian learners for reading comprehension at university level. Similarly to Sidek (2010), the current study used content analysis to achieve its main objectives which are: 1) To determine the overarching approaches to second language (L2) reading instruction reflected in the Yemeni EST 3rd grade secondary school reading curriculum, 2) To find out how well this curriculum prepares the Yemeni students for reading in English at the university level. In order to achieve the objectives of current study, the data were collected through document review and classroom observation.

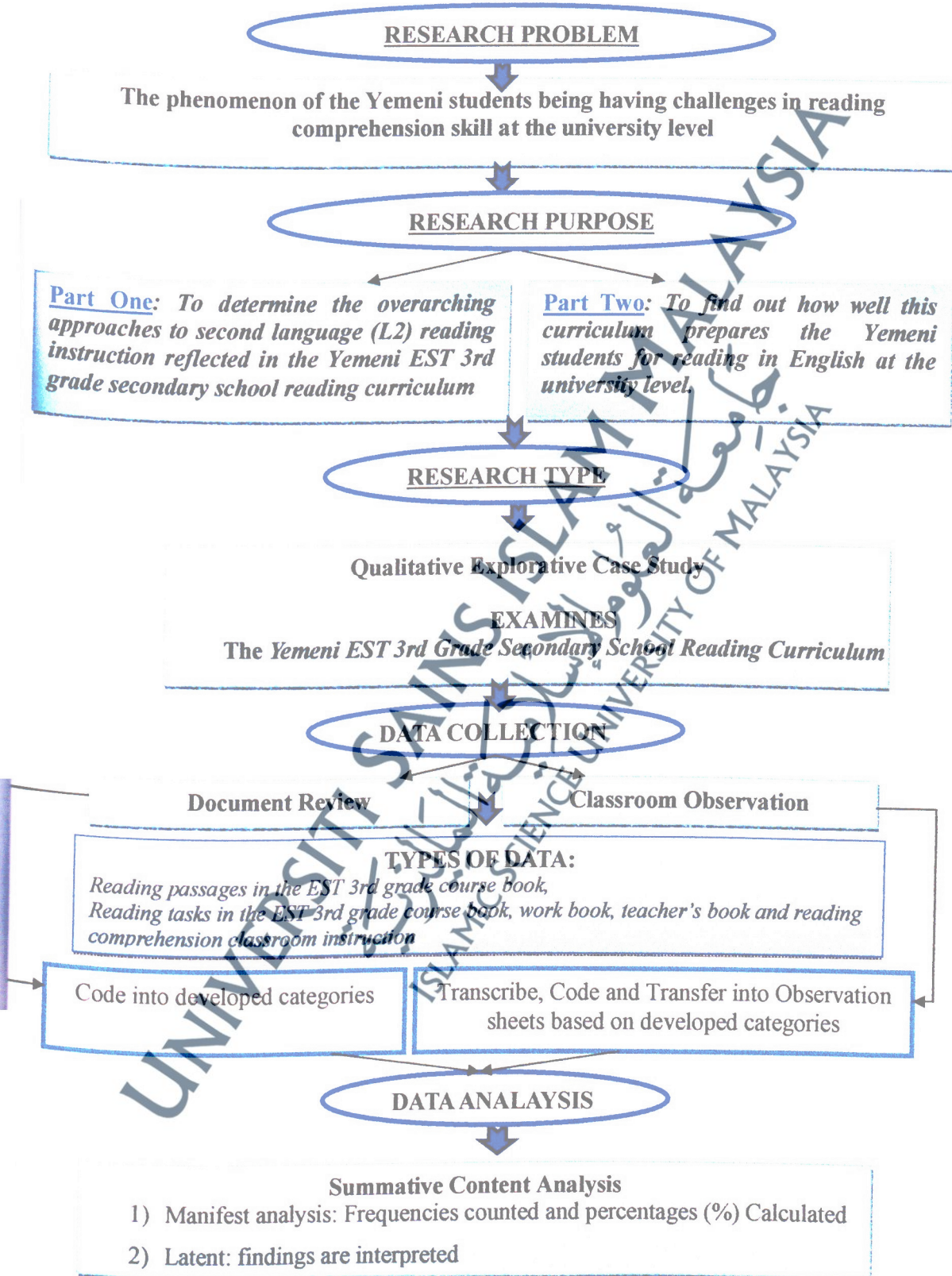
Most of the variables that were examined in the present study have already been the focus of attention in EFL/ESL literature. As some examples, one may refer to investigating readability by Miller (2011) and Rottensteiner (2010). ). Moreover, some studies examined the effect of types of reading tasks (Azzan, 2001), types of reading text (Wolpert & Vacca-Rizopoulos, 2012; Yoshida, 2012; Park, 2010; Alavi & Abdollahzadeh, 2008; Yali & Jiliang, 2007), and length of passages (Sahin & Alsancak, 2011; Beach, 2008; Chujo & Utiyama, 2005; Mehrpour & Riazi, 2004) on reading comprehension. In addition to investigating the level of cognitive demand associated with particular reading tasks (Gao, 2006; Chun, 1997), the learner role (Leat & Reid, 2010; Hung, 2006; Foorman & Torgesen, 2001; Vaughn, 1976), the teacher role (Krishnan et al., 2009; Vaughn, 1976), and the teacher-learner discourse on the students' reading comprehension performance (Bernaus et al., 2009; Douglass & Guikema, 2008; Anton, 1999; Hall, 1995). Figure 3.1 below illustrates the research design of the present study.

In line with the previous EFL curriculum analysis studies, the present research used content analysis approach in order to review, examine and answer the seven research questions related to the Yemeni secondary EST 3rd grade reading curriculum. The current study uses the frequencies and percentages to interpret the content. Counting the frequency and percentages is referred to as a manifest content analysis (Kondracki & Wellman, 2002) while using the frequency and percentage to interpret the content is referred to as latent analysis (Holsti, 1969). Thus, the current study is a qualitative summative content analysis study analyses both the manifest and the latent content of the selected documents.

Figure 3.1 briefly explains that this study is a qualitative explorative case study that used content analysis as an approach to analyse the Yemeni EST 3rd grade secondary reading curriculum. More detailed about the data collection and analysis procedures are provided later in this chapter.



FIGURE 3.1: Research Design of Study



The seven research questions that guided the present study reflected the aspects of EST 3rd grade secondary school curriculum as well as classroom instructional approaches, which were reviewed in Chapter Two. The rationale for developing these research questions as well as the methodology of data collection in order to provide answers for the research questions are explained in details as following.

## 3.2 RATIONAL OF RESEARCH QUESTIONS

### 3.2.1 Research Questions for PART ONE:

This section is introducing Research questions 1, 2, and 3. It is worth to mention here that elements: SLA and L2 reading theories and instructional approaches, learner role and teacher role are examined in research Questions 1, 2 and 3 in terms of the alignment of the curriculum to its label as a communicative based curriculum. The importance of the curriculum coherence has been attracted the researches for long time (e.g., McMahon & Thakore, 2006; Biggs, 2003; Obanya, 2002; Anderson, 2002). Obanya (2002) named the curriculum essentials as the achieved curriculum, designed curriculum, the implemented curriculum; however he insisted that a perfect coherence must be found between them. In order to avoid and solve problems in the teaching/learning platform, consistency and coherence must be planned across the entire curriculum (Biggs, 1999). Thus, coherent curriculum is crucial to achieve the goals and objectives for the curriculum which are stated in the beginning level of designing a curriculum. It has been acknowledged that curriculum writers emphasize the significance importance of curricular coherence (Howard, 2007). As every curriculum is based on particular theoretical orientation about language teaching and learning (Richards and Rodgers, 2001; Basturkman 1999) thus the consistency among

curriculum components can be inferred by examining the alignment of the theoretical orientation in the designed curriculum to the implemented and achieved curriculum. While the Yemeni curriculum of interest in this study was labelled as CLT curriculum, so the SLA and L2 reading theories and instructional approaches as well as the teacher and learner role should represent the CLT features.

### 3.2.1.1 Research Question (1)

*What second language acquisition (SLA) and second language (L2) reading theories and instructional approaches are reflected in the Yemeni EST 3rd grade secondary school reading curriculum documents and classroom instruction?*

Designing any pedagogical curriculum is based on different theories and approaches guide the curriculum to achieve the targeted academic outcomes, as it is attested by (Cunningham et al. 2007; Richards and Rodgers, 2001; Basturkman 1999; Hansen, 1995). Thus, as the Yemeni EST 3rd grade reading curriculum was labelled as CLT curriculum, it should be designed and developed based on theories and approaches represent the communicative approach. Therefore, investigating and understanding the reflected theories of SLA and L2 reading theories and instructional approaches in the EST 3rd grade reading curriculum is crucial. The obtained results from this question will hopefully guide educators, teachers, and curriculum developers to revise or reformulate the EST 3rd grade curriculum in general and the EST 3rd grade reading curriculum in particular.

### 3.2.1.2 Research Question (2)

*What learner roles are reflected in the Yemeni EST 3rd grade secondary school reading curriculum documents and reading classroom instruction?*

This question focuses on examining the types of learning tasks set for learners in terms of learner involvement activities such as individual or pair/group work activities as in the CLT approach. As the Yemeni curriculum was labelled as CLT curriculum, thus the learner role should reflect the CLT characteristics. CLT approach to language teaching is based on learner-centred classroom in which the learners are active participants and the learning tasks are designed to be practiced in pairs or small groups (Richards and Rodgers, 2001). Richards and Rodgers (2001) categorized the role of the learners in terms of conducting learning tasks *individually* as it is performed in GTM and ALM or *pairs/groups* as it is in CLT approaches. However, past studies examined the learner role due to its chief importance in promoting the learning process in teaching-learning context (Leat & Reid, 2010; Hung, 2006; Foorman & Torgesen, 2001; Vaughn, 1976). As a logic conclusion, eliciting the roles of the learners in current study required analysing the reading tasks, which are assigned to the learners, in selected documents and during reading comprehension lessons.

### 3.2.1.3 Research Question (3)

*What teacher roles are reflected in the Yemeni EST 3rd grade secondary school reading curriculum documents and classroom implementations?*

Past studies intended to define the role of the teacher in ELT context and language teachers' performance in teaching EFL (Zuheer, 2013; Al-Qatwani, 2010; Alsofi, 2009; Richards & Rodgers, 2001; 1986; Littlewood, 1981). Alsofi (2009)

claimed that the main problems of teaching English in Yemen due to the teachers' disability to teach a communicative syllabus. The role of the teacher in the classroom affects the learner role in nature (Choudhury, 2011). Consequently, the teacher must be clear about their role in the classroom to avoid chasm between their perceptions of their roles and what they actually practice in the classroom (Choudhury, 2011). Teacher role in ELT implies what the teachers are supposed to do in the classroom. In any teaching-learning situation, the teacher performance in the classroom is of vital importance (Zuheer, 2013; Al-Qatwani, 2010; Choudhury, 2011). The applied procedures, as it was explained in Chapter One, refer to classroom activities and performances that are based on the curriculum instructional design that the teachers follow; therefore, the teacher role was examined in terms of the procedure element.

Since it has been emphasized that CLT is an approach to language teaching based on learner-centred classroom in which the teachers' role is symbolized as facilitator, monitor, supporter and participant (Richards & Rodgers, 2001), preparing the EST 3rd grade Yemeni secondary school students for reading at tertiary level somehow depends on the teachers' classroom practical activities and the used instructional approaches. Moreover, Richards and Rodgers (2001) categorized the role of the teacher as either a facilitator/catalyst or director/instructor. Teacher role as catalyst refers to the teacher acts as a consultant, classroom manager, advisor, and/or observer for student's learning, as well as a co-communicator with the learners. Thus, this type of teacher role creates a learner-centred classroom as it is in the communicative language teaching instructional approaches.

On the other hand, the teacher role as an instructor/director is reflected in the traditional instructional approaches such as grammar translation method and audio lingual method. For a teacher-centred classroom or IRE pattern, the teacher focusses on teaching the grammatical and phonological rules through different practices such as repetition, drills and memorization (Littlewood, 1981). In the Initiation-Response-Evaluation (IRE) pattern, the 'I' refers to the teacher *Initiates* the lesson, the task or ask a question, 'R' refers to the student *Responds* to the teacher, and 'E' refers to the teacher *Evaluates* the student's answer and providing feedback (Ozemir, 2009). Thus, the typical IRE reading classroom instruction is characterized with the teacher initiates a lesson and asks some questions to the students, and then the students answer the teacher's questions followed by the teacher's evaluation for the correctness of the students' answers or providing feedback (Bloome et al., 2004).

Thus, finding answer for research question 3 will provide the researcher with clear picture of teacher role that is reflected in the different theories and approaches of SLA and L2 reading theories in the selected curriculum documents and the teacher actual role in reading classroom practices.

### 3.2.2 Research Questions for PART TWO:

This section is introducing Research questions 4, 5, 6 and 7.

#### 3.2.2.1 Research Question (4)

*How explicitly is the reading skill used to achieve the learning outcomes in the Yemeni EST 3rd grade secondary school curriculum documents?*

Design analysis is recommended by Richards and Rodgers (2001), they stated that “In order for an approach to lead a method it is necessary to develop a design for an instructional system” (p.24). They also stated that the learning objectives are a product of a design. Analysing the design requires analysing its entire elements, which the emphasis of reading skill is part of it. Hence, it is considered appropriate to analyse the extent to which EST 3rd grade reading skill is used and emphasized as a strategy to achieve the learning objectives of the EST 3rd grade secondary curriculum. Therefore, analysing the emphasis of reading skill in EST 3rd grade curriculum documents will provide data on the language skill that are frequently used in achieving the learning outcomes as stipulated in the EST 3rd grade curriculum.

### 3.2.2.2 Research Question (5)

*What types of reading tasks are reflected in the Yemeni EST 3rd grade of secondary school reading curriculum documents and classroom instruction?*

Reading tasks in the current study refer to the activities and reading-related statements that take place in the reading curriculum and the teaching context. In order to do the reading tasks, learners must employ different reading comprehension skills (Ueta, 2005). They employ various cognitive processes helping them to comprehend, manipulate, produce and interact with the text being read. The types of reading tasks in the documents of interest in present study were analysed because past studies found its close relation to readability and reading comprehension (e.g., Alavi & Nevisi, 2012; Scanlon & Vellutino, 1997). EFL students at academic areas are exposed to condescend and complex expository reading texts of different types (Badariah et al., 2011). Therefore they need to be able to comprehend and process the information in

texts through applying different reading comprehension skills (Rockman, 2004). Sidek (2012) indicated that EFL learners at the tertiary level are “expected to be able to analyse reading texts by identifying details and main ideas, and making inferences for implied text information” (p.9924). Major types of reading tasks are grouped into three categories: identification of main ideas (skimming), identification of details (scanning), and the drawing inferences (careful reading) (e.g., Anderson, Bachman, Perkin, & Cohen, 1991; Koda, 2005 as cited in Sidek, 2010). However, Urquhart and Weir (1998) categorized those types of reading tasks into two groups: careful reading and expeditious reading. Careful reading refers to understanding explicit information and making inferences, while expeditious reading refers to skimming and scanning. Thus, the current study examines these three types of reading tasks because they are the major tasks needed for Reading at academic level. The definitions of these types are presented below:

- **Identifying main ideas** (Skimming): refers to the way of reading in which readers quickly go through a whole text in order to find its gist (Brown, 2001; Nuttall, 1996).
- **Identifying details** (Scanning): refers to the activity in which the readers extract necessary pieces of information from a text without reading through the whole text (Ueta, 2005).
- **Drawing inferences** (Careful reading): in this type of reading task, reading rate seems to be somewhat slower than other types because of its associated with reading to full comprehension that may lead to learning. The readers often re-read and inference in order to connect information with background knowledge (Urquhart & Weir, 1998 ).

The EST 3rd grade secondary reading curriculum states that it focuses on six types of reading tasks (See Figure 3.2).

FIGURE 3.2: Extract (1) from EST Teacher's Book

**READING**

*Objectives* Crescent 6 aims to practise and consolidate the following reading skills and techniques:

- Predicting the content of a text
- Reading for gist (skimming)
- Reading a text for specific information (scanning)
- Reading for detailed understanding (intensive reading)
- Reading for enjoyment (extensive reading)
- Using the context to work out the meaning of unknown words ( see TP V2)

These reading skills should be tested in the final examination and it is therefore essential that the pupils are aware of this. They will then feel motivated to develop these skills both inside and outside the classroom.

Source: EST Teacher's Book (p. 19)

In terms of the three major important reading tasks investigated in this study and the reading tasks in the above Extract, *'predicting the content of the text'* conveys an equivalent meaning with *'making inferences category'*, *'reading for gist'* conveys an equivalent meaning with *'identifying main ideas category'*, *'reading a text for specific information'* conveys an equivalent meaning with *'identifying details category'*, while extensive and intensive reading are not practically involved in the EST reading curriculum. Past studies (Al-Tamimi, 2006) emphasized that the reading teachers in Yemen neglect and skip any reading for pleasure passages that may train the students to build up comprehension skills. Similarly, according to the researchers of present study review the content of EST curriculum documents and from reading classroom observations, the EST reading curriculum suffer from lack of any reading passages or reading tasks for the purpose of extensive and intensive reading.

Furthermore, the teachers do not use any extra texts for such above-mentioned purposes. However, the last reading task in the above Extract that stipulates: “*Using the context to work out the meaning of unknown words*” conveys an equivalent meaning with “*Other type category of reading tasks*”.

As a conclusion, in order to provide answer to research question 5, the present study analysed the different tasks that were reflected in the EST 3rd grade reading curriculum to examine how the EST reading curriculum prepares the senior level of Yemeni secondary school students for reading in English in content-based area at their tertiary level.

### 3.2.2.3 Research Question (6)

*What readability level, types and length of reading passages are reflected in the Yemeni 3rd grade of secondary school EST textbook?*

Learners reading in a foreign language seem to have deficiencies and challenges in understanding and processing the needed information (Alderson, 1984). Students who are involved in learning reading skills of English as a foreign language do not enjoy reading because they find it a challenging process (Day & Bamford, 2000). Variables affecting reading comprehension have been classified into two general categories: reader variables category and text variables category. The text variable category includes elements such as text content, text type and genre, text organization, text typographical features, and text readability (Alderson, 2000).

The Yemeni EST 3rd grade secondary school reading curriculum comprises different types of texts in the course book instead of including expository texts only. Hence, this study will examine three variables; two of which were examined by Sidek's (2010), namely, types and length of texts as well as the readability level of texts. Examining the readability level of texts is a contribution to Sidek's (2010) model of method analysis of teaching second language reading.

Since the aim of this study is to examine the overarching instructional approaches to L2 reading instruction that are reflected in the Yemeni EST 3rd grade secondary school reading curriculum, it was important to analyse the EST 3rd grade secondary school textbook in terms of types, length and readability level of texts in order to find out how the curriculum prepares the students for reading in English at the tertiary level.

### 3.2.2.3.1 Readability Level of Reading Passages

Readability refers to "How easily written materials can be read and understood" (Richards et al., 1992, p. 306). Accordingly, readability depends on many factors including the average length of sentences in a passage, and the number of new words in a passage. In brief, readability of text refers to determining the difficulty level of the text by taking the length of the sentences and the words as well as the number of unknown words into account (Izgi & Seker, 2012). Moreover, as Izgi and Seker (2012) stated that textbooks readability is considered a significant tool in the education-teaching process. Hence, the lack of readability in textbook assessment scales seems to be a noticeable deficiency. As a conclusion, the due to the truth of as one of textbooks qualities requirements, textbooks of the current study were examined in terms of the readability of reading passages.

### 3.2.2.3.2 Type of Reading Passages

The type of the text is one of the important elements for reading comprehension (Yamada, 2002). There are many researchers who stated that the types of text should be examined to find out about advanced L2 reading (Brantmeier, 2005; Alderson, 2000). The two main types of texts that have been widely examined are the expository and narrative texts (Park, 2010). The narrative texts, which are designed mainly for entertainment, have the simple structure of a story (Brown, 2011). Expository texts include different structures (Pyle, 2013) such as:

- Cause-effect: for example scientific texts,
- Chronological/sequence: for example recipe steps, history book, biographies,
- Compare/contrast: for example political speech, pros and cons, advantage-disadvantage topics,
- Description/categorization: for example newspaper article, and finally,
- Problem-Solution: for example medical information (Brown, 2011).

Since reading in EST content areas uses expository (informational) texts (Fetters et al., 2011; Veveiros, 2010; Ephraim, 2009; Fludernik, 2000;), the major portion of the texts in EST 3rd grade secondary school pupil's book are supposed to be expository in order to guarantee the students' preparation for reading the expository texts in the content area at tertiary level. Therefore, in order to find out the types of EST 3rd grade secondary school reading texts that the learners are trained with at the senior secondary school level, it was important to analyse the types of reading passages found in the textbook in terms of genre; i.e. either *narrative* or *expository*.

### 3.2.2.3.3 Length of Reading Passages

As a factor that contributes to the difficulty level of the passages, length of passages was recognized by researchers as an important issue. This is because, the longer the passages, the more difficult they will be (Mehrpour & Riazi, 2004). On the other hand, other researchers compared the reading comprehension performance of learners in relation to original and simplified text. The results did not show any significant differences in the comprehension ability of the subjects (Strother & Ulijn, 1987). As such, they concluded that text difficulty tends to disappear as the readers are becoming advanced readers. There are some past studies, which were found that the participants performed better on the original long text (Jalilehvand, 2012), while there are other studies that found students performed better on the simplified text (Wang, 2011). Thus, one may conclude that the effect of length of passages on reading comprehension is not conclusive, yet the conclusive thing is the long texts of content area (Beck et al., 1991). Therefore, in order the students to be able to comprehend and access informational texts in content based area they need to be exposed to process texts and to be trained at grade level in their English curriculum especially at the last year of secondary school. Hence, it was important to analyse the reading texts found in the textbook of EST 3rd grade secondary school in terms of length of texts to find out whether the texts in terms of their length are at the students' grade-level of senior secondary school.

### 3.2.2.4 Research Question (7)

*What level of cognitive demand of reading tasks is reflected in the Yemeni EST*

*3rd grade secondary school curriculum documents and classroom instruction?*

The level of L2 reading comprehension mastery depends on factors such as types of text, text difficulty, and task demand (Phakiti, 2006). The level of cognitive demand of the reading task has been investigated in previous studies (Biswal et al., 2010; Chun, 1997; Gao, 2006; Leslie, 1976). In content area, reading tasks have been shown to be a critical issue and require high level of reading comprehension (Anderson & Pearson, 1984). To achieve a good level of text comprehension, learners need to be trained with appropriate level of reading comprehension skills at secondary school level so that they will be able to process information for academic success at the tertiary level (Moore et al., 1999). In other words, teaching learners at secondary school level with the essential cognitive skills is considered vital for the learner success at tertiary level (Crano & Johnson, 1991). Consequently, the cognitive demand level of the reading tasks in the Yemeni EST 3rd grade course book, workbook and classroom practices were analysed to find out whether the types of reading tasks of 3rd grade secondary school students, are matched to those at the tertiary level.

According to Marzano's (2000) and Marzano et al.'s (1988) taxonomy, two levels of cognitive processes are utilized in line with the task's cognitive demand; i.e. higher-level and lower-level of cognitive demand. Higher-level of cognitive demand tasks require skills such as organizing, applying, analysing, synthesizing, generating, summarizing, and evaluating information. This means that learners who were already equipped with tasks with higher-level of cognitive demand will be able to process academic language tasks efficiently (Dutro & Moran, 2003). On the other hand, tasks with lower-level of cognitive demand require skills such as focusing, recalling information, and information gathering skills. Since a secondary school level is

considered as the gateway to higher education, all secondary school curricula have to endeavour to train students so that they will be able to pursue their higher studies in content area successfully. Moreover, it is needed to improve their abilities to process information using both higher and lower order cognitive skills (Sidek, 2010). Thus, this research question aims at finding out the mastery level of EST 3rd grade secondary school students in terms of information processing skills that they were prepared for.

A combination of Marzano et al.'s (1988) and Marzano's (2000) Core Thinking Skills Taxonomy is presented in Table 3.1 below in a hierarchical order from lower-level to higher-level of cognitive demand as categorized by Sidek's (2010).

TABLE 3.1: Higher and Lower Levels of Cognitive Skills

Skill Level	Categories
Lower-Level Skills	<ol style="list-style-type: none"> <li>1. <b>Focusing skill:</b> Emphasising on selecting a particular piece of information while exclude others.</li> <li>2. <b>Information-gathering skill:</b> Obtaining information through observation and formulating questions and clarifying meanings and through inquiry.</li> <li>3. <b>Recalling/Remembering skill:</b> Reproducing pertinent information from what have been stored in the learner's long term memory.</li> </ol>
	<ol style="list-style-type: none"> <li>1. <b>Organizing skill:</b> Arrange information so that it can be understood or presented effectively through:               <ol style="list-style-type: none"> <li>a) Comparing information in relation to the similarities and differences.</li> <li>b) Classifying information into group based on their entities.</li> <li>c) Ordering information in sequence based on specific criteria and logical manner.</li> <li>d) Representing the same information in different form.</li> </ol> </li> <li>2. <b>Applying skill:</b> Utilizing pertinent prior knowledge in a new situation.</li> </ol>

<b>Higher-Level Skills</b>	<b>3. Analysing skill:</b> a) Identifying details of character or determining parts of things b) identifying relationships among items c) Identifying and extracting the main idea d) Identifying errors and correct them where possible
	<b>4. Synthesizing skill:</b> Identifying and extracting the most significant part and delete the others.
	<b>5. Generating skill:</b> a) Inferring information from beyond the text to declare what can be reasonably true. b) Predicting the outcome of the context by anticipating the upcoming events. c) Elaborating information by adding relevant information for explanation.
	<b>6. Integrating skill:</b> a) Summarizing by combining information into cohesive statement. b) Restructuring by adding new information and change existing knowledge structures.
	<b>7. Evaluating skill:</b> a) Establishing criteria by making judgement b) Verifying by prove truth of claims

### 3.3 RESEARCH CONTEXT

The current research replicated Sidek's (2010) study which was conducted based on the relationship between the Malaysian public secondary and tertiary educational system. Sidek's (2010) study examined the preparation of Malaysian secondary school students to find out whether they meet the academic English demands at the post-secondary level. But, the present study focused on the Yemeni context to find out whether the preparation of Yemeni secondary school students matches for their reading in English at the University level. Similar to Sidek's (2010) research, the present study considered the Yemeni public secondary educational system as its research context.

To achieve the major goal of the current study as well as to be able to conduct the content analysis, the EST 3rd grade curriculum was selected to perform the study. Specifically, the rationale for selecting EST 3rd grade curriculum was based on the reasoning that this year is the final year in secondary school and accordingly it represents the educational connectivity between secondary school level and the tertiary level. This stage is the gateway for the students' entrance to the tertiary level.

Hence, students' proficiency in English language at EST 3rd grade reflects the students' English language competency in the secondary school, which language skills are supposed to be used to meet the academic demands at the post-secondary level including reading in English.

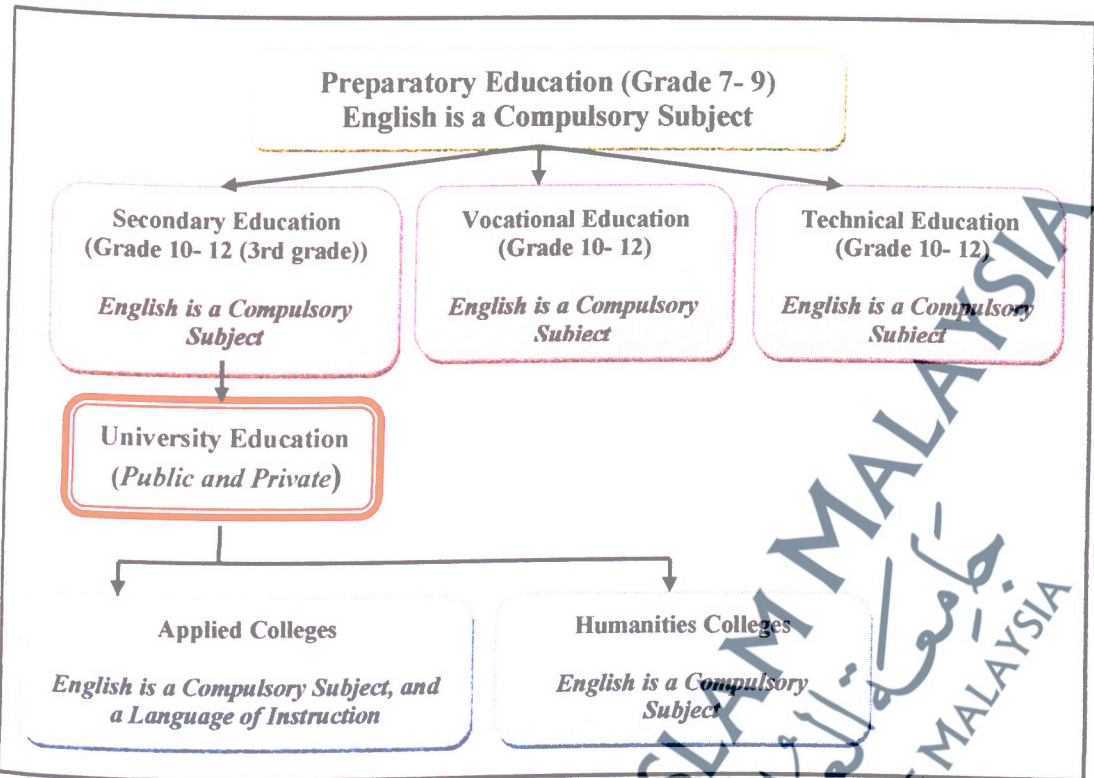
### 3.3.1 Yemeni ESL Educational Context

In the Yemeni public educational system, formal instruction of teaching English as a Foreign Language (EFL) begins in grade 7 (13 years old) of the basic education (preparatory stage) and extends until the end of this stage, grade 9 (15 years old). At the end of grade 9, the students are placed for preparatory school national examination in which English is a compulsory subject. After that, teaching EFL continues as a compulsory subject at the secondary education, which continues for three years starting from first grade (16 years old) to third grade (18 years old). At the end of the secondary education, students have to sit for secondary school national examination in which English is a compulsory subject as well. General secondary education covers three years. In the first year, students follow general EFL curriculum. After completing the first year, students are confronted with two alternatives; either to choose science track or literary track for the remaining two years of secondary school.

Consequently, at each track students study ESP courses for EFL (National Information System, 2010).

There are also special secondary schools for Vocational and Technical education (see Figure 3.2) like Veterinary Training School, Health Manpower Training Institute, and Agricultural secondary school, where EFL teaching is considered as one of the school subjects and is taught as a foreign language (Hassen, 2009). These special secondary schools are administered by the Ministry of Technical Education and Vocational Training, while the general secondary school is supervised by the Ministry of Education (Al-Hattami, 2012). The academic year at the two stages (basic and secondary education) is consisted of two semesters, which each semester continues for almost 15 weeks. The educational system is not a co-education one, public schools are entirely separated based on gender (Al-Hattami, 2012). Figure 3.2 represents EFL as a compulsory school subject in the Yemeni Educational System.

**FIGURE 3.3:** Requirements of EFL in the Yemeni Educational System



The Yemeni graduate students have one year obligatory gap between the secondary national examination and college entrance test (Al-Ahdal, 2010). The college entrance tests, which are administered between August and September each year, are composed of a combination of different subtests. These subtests are English, Physics, Chemistry, Biology, and Mathematics. These tests are prepared by expert Yemeni professors at the related departments in the Colleges of Education. For example, the English department prepares the English test and the physics department prepares the physics test. The English subtest is consisted of 20–30 multiple-choice items of three or four alternatives, which covers three main parts; i.e. reading comprehension, grammar, and vocabulary. The scores of the college entrance tests are

processed with high school grade average to make significant decisions about the students' potential to succeed in their college studies (Al-Hattami, 2012).

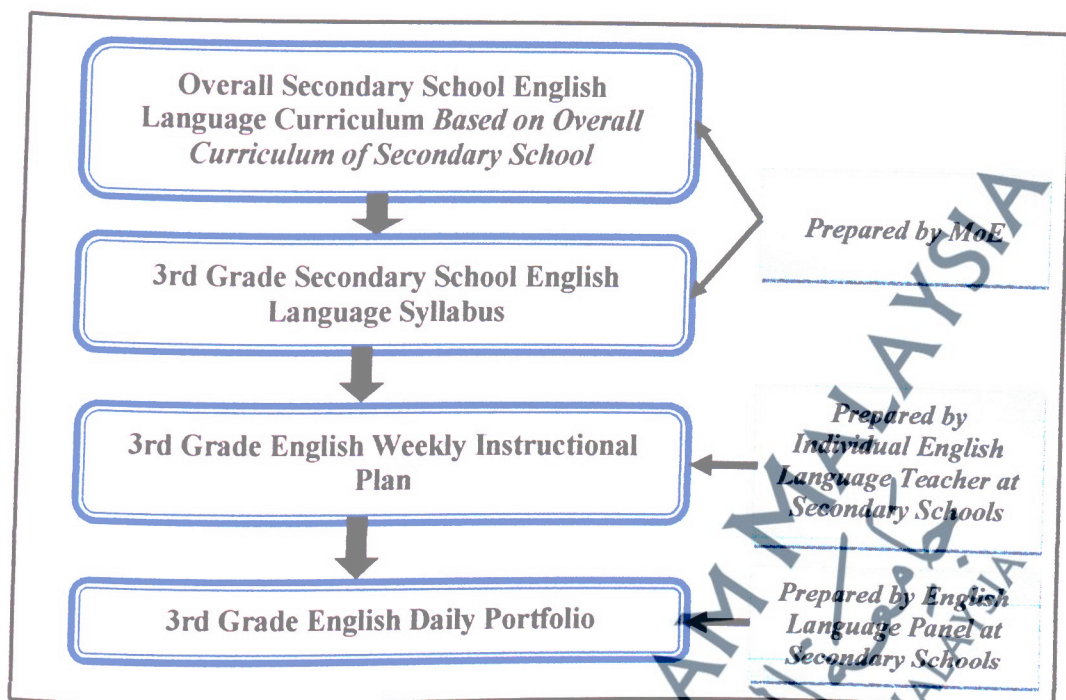
### 3.3.2 The Yemeni Secondary EFL Educational Framework

Teaching EFL at secondary education is a continuous procedure which has previously started for three years at basic education. However, secondary education covers three years as well, in which general English is taught as an EFL subject during the first year while as an ESP subject at the last two years. The Ministry of Education (MoE) is in charge of general secondary education. Thus, the curriculum documents of all the subjects being taught in secondary education including English are designed, formulated, and adopted by MoE.

### 3.3.3 The Yemeni Secondary 3rd Grade EFL/EST Educational Framework

From the above review of the Yemeni secondary EFL educational framework, it can be concluded that the Yemeni English language educational framework is consisted of four hierarchical levels. Two levels are prepared at ministerial context, while the other two are prepared at the school context. The four hierarchical levels of EST grade secondary school, as part of the overall curriculum for all subjects of secondary school, are as followings: 1) The overall English language curriculum for all three secondary school levels (grade 10 to grade 12), 2) The detailed English language curriculum (Syllabus) of 3rd grade secondary school (grade 12), 3) the 3rd grade weekly instructional plan based on the provided syllabus, and 4) the 3rd grade daily portfolio based on the provided weekly instructional plan. Figure 3.4 demonstrates the conceptual structure of the 3rd grade Yemeni secondary school English language curriculum.

**FIGURE 3.4:** Conceptual Structures of 3rd Grade Yemeni Secondary School English Language Curriculum



### 3.3.4 The 3rd Grade English Language Curriculum

In secondary schools, English is one of eight or more subjects, which are taught at this stage. It is the only course which is conducted in the English language; whereas all the other courses are designed and instructed in Arabic. Yemeni educational philosophy reflects the needs and aspirations of the society and explains the aims of Yemeni educational system. Generally, the philosophy of education is the thoughts, concepts and principles which direct the educational procedures depicted in its objectives, essence, and methods of teachings and approaches of its evaluation, its policies and its instruments for achieving its goals. Article No. (3) - Education Act No. (45) 1992 states:

“The sources of Objects of Educational Philosophy in Republic of Yemen are from the Islamic beliefs and thoughts, constitution, Islamic and Arabic

heritage, objectives of (Sept.-Oct.) revolutions, the national movements and their experiences, and the needs of learners and society” (Al-Khowaldah, et al., 1993, p. 338-339 as cited in Hassen, 2009, p.12).

Concerning the educational setting, as the general act of education in Yemen emphasizes on preparing teacher-trainers and developing related teaching theory with practice. Educational Act (45)1992, Articles No. (3), provision “k” states that:

“Education is a task conveying a human message and the teacher is the cornerstone for reforming and developing education. Thus, the education system works for relating theory and practice, as it is considered as a tool for information technology and a beginning for achieving the educational objectives” (Hassen, 2009, p.10).

Moreover, in the same educational act, provision “L”, it is stated that the general act of education focuses on the educational side of the learner as well; it considers the learner as a standard entity for activating the educational process. In other words, it gives special consideration to the needs of the learners so that they can discover their abilities and attitudes. It constitutes a basic factor in the development of the teaching/learning process (Hassen, 2009).

Recently, the Yemeni government has approved the National Secondary Educational Strategy (NSES) (2006). NSES seeks to empower Yemen to process general secondary education features, such as justice and equity in providing education opportunity and quality education, and domain verification, which enables graduates either to continue their higher education or to join the marketplace. To

achieve this goal, the educational Yemeni strategy focuses on many procedures; one of which is improving the quality level of the general secondary education. However, for NSES in order to improve the general secondary education the following measures were taken:

1. Reconsider the current verification of the general education by benefiting from the regional and international experience.
2. Develop and pilot new school curricula reflecting the skills, competencies and knowledge which are required to be acquired.
3. Develop pre-service training programs for training teachers which suitable the new curricula and approved verification of the general secondary education.
4. Develop a system to evaluate educational achievements in accordance with the curricula and approved verification for the general secondary education (Moe, 2008, P. 6).

Based on the above educational philosophy and the NSES, the 3rd grade English Language curriculum was developed to support and advance the Yemeni secondary school students' EFL skills. In other words, this philosophy and strategy aims at preparing students and providing them with the proper foreign language skills and knowledge to produce Yemeni graduates well prepared and equipped with all EFL skills needed for their higher education.

### 3.4 PARTICIPANTS

The sample informants of this study are the Yemeni EST teachers at 3rd grade governmental secondary school level. A purposive sampling technique was used to select the participants of the study. The informants in purposive sampling are members of the population, who know well about the context and are willing to

provide the needed information based on their experience and knowledge (Bernard, 2002; Campbell, 1955). As such, 8 Yemeni EST 3rd grade secondary school teachers were selected. Purposive sampling has been used recently in case studies (Dolisca et al., 2007; Parlee & Berkes, 2006). Moreover, to select a purposive sampling, it is useful to ask a help from a community (Dolores & Tongco, 2007) therefore, in current study, a help was asked from headmasters of selected schools. For a purposive sampling, Bernard, 2002, declared that there is no limit for the sample size, sample depends on the needed information (Bernard, 2002); however, the sample size should not be less than 5 in order to assure the reliability of data (Seidler, 1974 as cited in Dolores & Tongco, 2007). Thus, based on Seidler (1974) collecting data by observing EST reading classroom instruction of 8 teachers in this study is reliable.

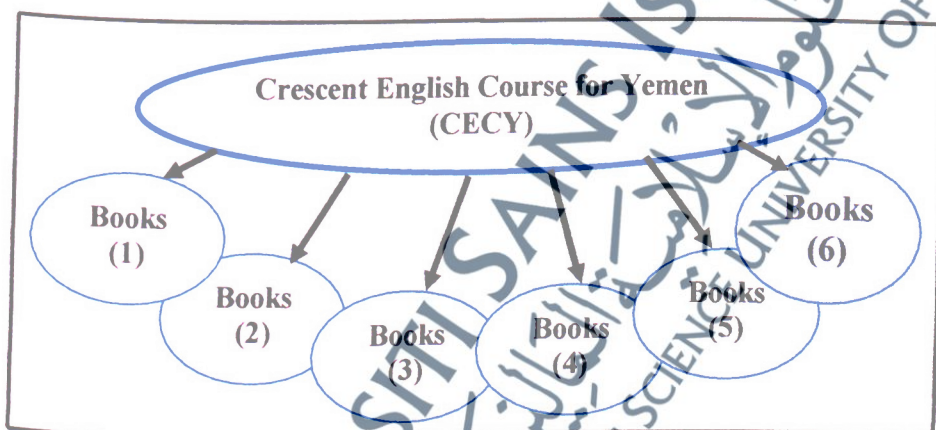
### 3.5 INSTRUMENTS OF DATA COLLECTION

Merriam (2009), in qualitative research, the researcher is the primary instrument of data collection. Moreover, Creswell (2012) used the term “sources” of data for documents and observations (p.441); in addition, Dumessa (2002), Rahman (2007) and Zohrabi (2013) described classroom observation sheets as a research instruments and tools. Moreover, Griffie (2012, p.105) mentioned that documents such as textbooks are data instrument in case study design. Thus, the instruments used to collect the data, in addition to the researcher, were the EST course book, EST workbook, teacher’s book and classroom observation sheets.

Regarding EFL, the MoE has adopted a new textbook series called Crescent English Course for Yemen (CECY). The textbook series, Crescent English Course (CEC) was primarily prepared and published in 1977 by Oxford University Press for

English teaching in the Arab world (Al-Tamimi, 2006). However, since 1977, CEC has been modified several times to meet the situations of different Arabic countries. The modifications reflected both the authors' experience over the years since the first publication and covered the needs of the teachers to something new (O'Neil et al., 1999). The CECY of 3rd grade of secondary school includes three books; the course book, work workbook and the teacher's book (books 6). The CECY series are being taught equally in two levels of education: three series of books (1, 2, and 3) at basic (preparatory) education and three series of books (4, 5, and 6) at secondary education (See Figure 3.3). Books 6 series are explained separately below in Figure 3.5. The CECY hereafter will be referred to as EST 3rd grade secondary school curriculum.

**FIGURE 3.5:** Textbook Series of CECY (EST 3rd Grade Secondary School Curriculum)



### 3.5.1 EST Course Book

Refers to the Crescent English Course (Pupil's book (6)), which was mandated by the Ministry of Education, Republic of Yemen to be utilised daily both by EST teachers and learners. It is consisted of 6 general units divided into 12 sub-units; in addition to one unit for science reader in the back of the book as the seventh unit of

the book. The reading passages, the reading related statements and the statements related to other language skills were also elicited from this book.

### 3.5.2 EST workbook

This term refers to the Crescent English Course (workbook (6)), which was mandated by the Ministry of Education, Republic of Yemen to be used daily by EST learners. It is also consisted of 6 general units divided into 12 sub-units; in addition to the science reader unit. This book was designed to be used by EST learners. It includes the learning tasks for all the lessons in the course book. The reading related statements and the statements related to other language skills were also elicited from this book.

### 3.5.3 Teacher's Book

This term refers to Crescent English Course teacher's guide book (6), which was instructed by the Ministry of Education, Curricula and Supervision Sector in Republic of Yemen (1999). In the initial pages of this book it is mentioned that "A good classroom atmosphere is very important" (O'Neil et al., 1999, p.11). It includes an overview about the CECY series (6) and the objectives of each language skill in addition to some advice to the teachers, which are put under the title "Advise to teachers" (p.11) such as:

- The room should promote communication and seating should allow for pair work and group work under the teacher's control. Teacher should lead the pupil centred learning and devotes time to learners who need special attention.
- English should be used as much as possible during lessons. However, using Arabic language is needed in some occasions such as explaining new type of activities.

- The major portion of the classroom instructional activities should be allocated to the learners, while teacher takes small part in the introduction and conclusion.

The teacher's guide book (6) includes other explanations for the teachers to conduct their classes in terms of each individual unit. In addition, it includes the answer key of all the tasks in the work book. The reading related statements in the teacher's book were assigned to the teachers only; so that, those statements were only analysed to find out the teacher role as well as the learners' role, which is modelled by the teacher.

#### 3.5.4 Classroom Observation Sheets

Six classroom observation sheets (Appendices 1, 2, 3, 4, 5 & 6), which were already developed by Rahim (2014), but they were slightly modified to be adapted to the context of present study. The observation sheets covered the following issues:

- All SLA theories and instructional approaches,
- L2 reading theories and instructional approaches,
- Teacher roles,
- Learner roles,
- Types of reading tasks, and
- Level of cognitive demands.

### 3.6 PROCEDURES OF STUDY

The measures that were taken in order to succeed the data collection procedures were firstly, selecting the number of classroom observations, secondly, selecting the number of teachers and the number of schools, and thirdly, procedures of classroom observations and procedures of reviewing the documents.

#### 3.6.1 Procedures of Selecting the Number of Classroom Observation, Teachers and Schools

The Yemeni 3rd grade secondary school course book contains six core units, which each of them is divided into 12 sub-units. Two subunits of each core unit are designed specifically for reading skill, in addition to an art and science reader sections. Art reader is intended to be used in the art classes while science reader is used in the science classes (O'Neil, et al., 1999). The science reader section contains 10 texts, which are designed to be taught in a total of 20 lessons. The allocated time for each lesson is 40 - 45 minutes. Besides, there are 12 lessons that are allocated for the 6 core units. Thus, a total of 72 lessons for core units and 20 lessons in the reader section are designed for EST 3rd grade secondary school learners per year. Table 3.2 presents the organization of EST 3rd grade secondary school course book and work book, as was described above, in terms of the total number of lessons (O'Neil, et al., 1999).

**TABLE 3.2:** Organization of EST 3rd Grade Secondary School Course Book and Work Book

Unit	Topic (Core units)	Lesson (Sub-units)	Reader Lessons
1	Describing things	12	4
2	Reporting events	12	4
3	Looking for a job	12	4
4	Tables, flow charts and diagrams	12	4
5	Working things out	12	4
6	Looking back	12	
	<b>Total</b>	$12 \times 6 = 72$	$+ 20 = 92$

Source: English Course for Yemen, Teacher's Book, P. 5.

Table 3.3 presents the titles of the reading passages as reflected in the EST 3rd grade secondary school course book for reading comprehension purposes. It presents the titles of the core units as well as the titles of the reading passages as reflected in the EST 3rd grade secondary school course book. The titles of reading passages in the science reader are also presented in Table 3.3.

**TABLE 3.3:** EST 3rd Grade Secondary School Reading Passages

Unit	Topic (Core units)	Reading Lessons (Sub units)	Science Reader Lessons
1	Describing things	1. <i>A Drive in the Country side.</i> 2. <i>A View from the Window</i>	1. <i>Acids and alkalis</i> 2. <i>State of Matter</i>
2	Reporting events	3. <i>Today's News: In the Daily Post Today</i> 4. <i>Hits Central America. Thousands Dead</i>	3. <i>Light</i> 4. <i>Sound</i>
3	Looking for a job	5. <i>Thinking about the Future</i> 6. <i>Applying for a Job</i>	5. <i>Arabic Scientists</i> 6. <i>Vaccination</i>
4	Tables, flow charts and diagrams	7. <i>Agriculture in Yemen</i> 8. <i>Frozen Peas</i>	7. <i>Experimental Procedures</i> 8. <i>Internal Combustion Engine</i>
5	Working things out	9. <i>Puzzles and Riddles</i> 10. <i>The Mystery of the Mary Celeste</i>	9. <i>The Moon</i> 10. <i>Radio Activity</i>
6	Looking back	11. <i>Emergencies in the News</i> 12. <i>A Long Life in Medicine</i>	
<b>Total</b>		12 EST reading lessons. +	10 passages, 2 classes for each = 20 EST reading lessons.  20 = 32 reading lessons per school year.

Previous studies that performed classroom observation did not provide a conclusive reference about the frequency and numbers of observations so that can be adapted by the present study (e.g., Salahuddin et al., 2013; Rahman et al., 2011; Behnam & Pouriran, 2009; Rahman, 2007). The maximum number of classroom

observations in past studies as summarized in Table 3.4 are 30 observations (Salahuddin et al., 2013) and the minimum are 6 observations (Rahman, 2007)

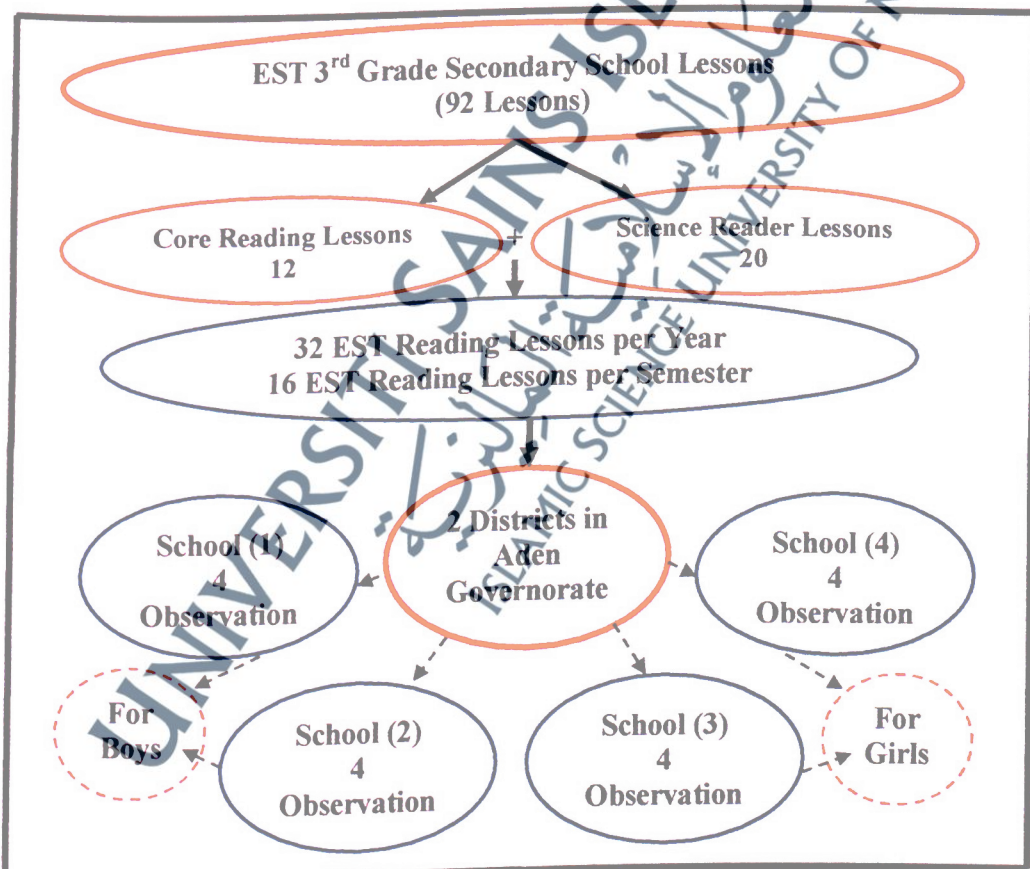
In addition, in the literature, no research study in analysing public curriculum paid attention to the number of schools, different states or governorates in the country. For example Dumessa (2002) selected the schools, the teachers and the number of classes randomly because, as s/he indicated, “There is no obvious disparity regarding the students' placement, teachers' allocation, course book distribution, and English language period allotment among the government schools in Addis Ababa” (p.36). Besides, Rahim (2014) and Rahman (2007) collected the observations for their studies only from one district. Table 3.4 summarizes classroom observation in the literature.

TABLE 3.4: Classroom Observation in Literature

The Study	Year	No. Districts	No. Schools	No. Teachers	No. Observations
<i>Present study</i>	2014	2 districts	4 schools	8 (2 from each school)	16 (2 for each teacher)
<b>Rahim</b>	2014	1 district	3 schools	9 teachers	14
<b>Salahuddin et al.</b>	2013	Not mentioned	30 schools	20 teachers	30
<b>(Rahman et al.,</b>	2011	2 districts	5 schools	10 teachers	20 (2 for each teacher)
<b>Rahman</b>	2007	1 district	10 colleges	Not mentioned	6
<b>Dumessa</b>	2002	Addis Ababa	5 schools	5 (1 from each school)	20 (4 for each teachers)

Therefore, in the current study, considering the two reading classes per each core unit ( $2 \times 6$ ). In addition to the twenty classes that were considered for science reader, the total of reading classes is 32 classes in the two semesters of the school year; i.e. 16 classes in each semester. As such, these 16 reading classes were the number of observations in current study from four secondary schools, which two schools were for male and the other schools were for females (See Figure 3.6). Besides, eight EST reading teachers, two teachers from each of the four schools, were chosen. All the 16 classroom observations (2 observations from each teacher) in current study were collected from two districts (Crater district and KhurMaksar) in Aden governorate, Yemen. Figure 3.6 illustrates the classroom observation procedure.

FIGURE 3.6: Classroom Observation Design



### 3.6.2 Procedures of Classroom Observation Permission

Two official letters were sent to the office of education, Republic of Yemen to facilitate receiving permission from the local authorities as well as to facilitate the data collection procedures in Yemen, a confirmation letter of student's status from the Dean of Faculty of Major Language Studies, Islamic Science University of Malaysia (USIM), which was certified by the Yemeni Embassy in Kuala Lumpur (Appendices 7 & 8), and a confirmation letter of student's status (in Arabic) from the Yemeni Embassy in Kuala Lumpur (Appendix 9). As a result, the Office of Education, Republic of Yemen wrote on the letter that was issued by the Yemeni Embassy in Kuala Lumpur (in Arabic) a recommendation to the directors of Education in Yemen to facilitate and help the researcher at administering the classroom procedures, this letter was certified, thereafter, by the Offices of Education in the selected districts (Appendix 10) and was presented to the participating schools' headmasters along with copies of permission letters (Appendices 11 & 12) in order to insure a full cooperation of all authorities so that data collection could be run smoothly. Full information about the research was explained to the EST reading teachers (participants) with teachers' informed consent (Appendix 13 & 14) signed by them for the purpose of audio recording.

### 3.6.3 Preliminary Review Procedures

Preliminary review for EST 3rd grade secondary school curriculum was conducted along with reviewing the related literature. The aim of conducting the preliminary review for the selected curriculum documents in present study was to provide an overview and get some knowledge about the content of the curriculum in terms of the curriculum theoretical basis, the learning activities, and the roles of

teachers and learners; as well as reading tasks and texts and the level of cognitive demands as reflected in the selected curriculum. The researcher conducted the preliminary review prior to determining the categories of interest in the study and the implementation of the data collection and analysis of procedures.

#### 3.6.4 Categorization Procedures

Content analysis method has been defined by Hsieh & Shannon (2005) 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” (p.1278). Love (2003) defined it more clearly in terms of the consistency to current study procedures and following, Love’s proposed that where documents have been collected, catalogued, contextualized and assessed for their degree of authenticity, more in-depth analytic procedures can be undertaken’ (p. 89).

Based on Love (2003), analytical procedures comprise categorizing and coding and then analysis the content. Those definitions emphasize the process of coding because it is important element for the success of content analysis (Hsieh & Shannon, 2005). That is the real situation in the current study. The present study started with categorizing the themes (codes) and then collected and coded the data and counted the frequency and the calculating the percentages of specific patterns in the selected documents. Table 3.5 presents the categories determined for every research question as explained in section 3.2. All the selected categories were previously defined in section 3.2 as well.

**TABLE 3.5:** The Selected Categories of Present Study

RQs	Research Question	Categories of Codes
1	SLA theories and instructional approaches	1. Structural theory 2. Cognitive theory 3. Socio-cognitive / Socio-cultural theory
	L2 reading theories and instructional approaches	1. Bottom-up theory 2. Top-down theory 3. Interactive theory
2	Teacher role	1. Catalyst 2. Director
3	Learner role	1. Pair / group 2. Individual
4	Frequency of reading skill	1. Explicit 2. Implicit
5	Types of reading tasks	1. Identifying details 2. Identifying main ideas 3. Drawing inferences
6	Types of texts	1. Expository 2. Narrative
7	The cognitive demands	Low level a) Focusing skill b) Information gathering skill c) Recalling skill
		2. High level a) 1. Organizing skill b) 2. Applying skill c) Analysing skill d) Synthesizing skill e) Generating skill f) Integrating skill g) Evaluating skill

### 3.7 DATA COLLECTION

To answer the research questions, first, the data were collected and then analysed. There are many procedures which can be followed in collecting the data. Selection of the specific type of the instruments to collect the data depends on the

nature of the research and the type of required information; whether qualitative or quantitative.

The present study is a qualitative explorative case study that examines the EST 3rd grade secondary school reading curriculum. It employed document review for EST curriculum documents of the EST 3rd grade secondary school in addition to observing classroom instruction. Previous studies on curriculum analysis emphasized on analysing the entire materials of ELT (Hassen, 2009). EST materials in the present study are symbolized by the following abbreviations:

- EST 3rd grade secondary school course book (CECY pupil's book 6).
- EST 3rd grade secondary school work book (CECY work book 6).
- EST 3rd grade secondary school teacher's book (CECY teacher's guide book 6).
- EST 3rd grade reading classroom observation.

Moreover, previous studies in curriculum analysis (Lawrence, 2011; Hassen, 2009) and textbooks evaluation (Lawrence, 2011) used different procedures in data collection such as questionnaire, content analysis, observation, and interview.

To answer the seven research questions of the current study, the data were collected via document review and classroom observation.

### 3.7.1 Classroom Observation

Observation as a method for data collection is one of the oldest research instruments applied in data collection procedures (Behnam & Pouriran, 2009). It focuses on classroom activities and instructional structure (Tsai, 2008). Observation

refers to the “purposeful examination of teaching and/or learning events through systematic processes of data collection and analysis” (Carter & Nunan, 2001, p. 114).

In the current study, classroom observation was used as an instrument to observe the procedure element (teaching instruction) based on the entire procedure analysis of Richards and Rodgers (2001) model.

Particularly, the classroom techniques, practices and behaviours in terms of the interactional patterns observed in teaching lessons either in communicative pattern or in Initiation-Response-Evaluation (IRE) pattern. Besides, the utilized instructional approaches by the participants (EST teachers) were observed.

Classroom observations were conducted to observe the Yemeni EST 3rd grade secondary school reading teachers’ teaching instruction for data collection purpose. The researcher insisted to observe the actual practices of the teachers in real life EST reading classroom instruction because classroom practices can be totally differ from what is stated and described in the curriculum and hence cannot be deduced or interpreted from analysing the national curricula (Heilmann & Korte, 2010). Classroom observation procedures of the current study are summarized below:

1. The districts of interest, number of schools and number of teachers were selected.
2. A help was asked from the head masters’ of the selected schools, who arranged meeting between the researcher and EST reading teachers.
3. Teachers’ timetables were taken and phone contact numbers were swapped between the teachers and the researcher (observer).
4. The researcher, without any involvement and participation in classroom activities, attended the classrooms as the teachers were performing in their routines (Ary, et

al., 2006). The researcher observed 16 EST 3rd grade reading lessons in duration of 45 minutes a class; all classrooms' practices were audio-recorded with teachers' informed consent.

5. Each reading classroom instruction was transformed into Microsoft Word file (Appendices 15 & 16); the transcription of every classroom recording consumed about 2-3 hours.
6. As the next step, a list of reading related statements were elicited from the transcriptions (appendix17).

### 3.7.2 Document Review

The document review examined the SLA theories and instructional approaches and L2 reading theories as in Sidek's (2010) model as well as analysed the types of texts and reading tasks, readability level, length of texts, cognitive demand of tasks, learners' roles in and the frequency of reading skill. All of EST, 3rd grade secondary school course book, work book and teacher's book as well as transcriptions from classroom observation were reviewed by the researcher of the current study as follows:

1. All statements that are related to writing, listening and speaking skills (Appendices 18, 19 & 20) were also collected in order to analyse the frequency of reading skill compared to other language skills in EST curriculum.
2. A list of reading related statements were collected from the course book and work book and were coded based on the categories determined for each research question of the study (Appendix 21).

3. A list of statements in the teacher's book, which are assigned to the teachers to conduct the reading classes, were collected and coded to examine the teachers and the learners' role.
4. A list of reading related statements in classroom observation transcripts were collected and then coded and transferred into the observation sheets (Appendix 22) to be analysed later. This method is considered as the most standardized technique of collecting data through observation, which can be conveniently labelled and described prior to the next measures in the data collection procedure (eTA, 2008).
5. EST 3rd grade reading passages in the EST 3<sup>rd</sup> grad course book were collected. 22 Reading passages were individually typed in a Microsoft word for analysis purposes.

To answer the seven research questions of current study, data for each research questions were collected from particular documents (sources) as summarized in Table 3.6.

**TABLE 3.6: Sources of Collecting the Data of each Research Question**

Research Questions for PART ONE	Source
<b>Research Question (1):</b> <i>What second language acquisition (SLA) and second language (L2) reading theories and instructional approaches are reflected in the Yemeni EST 3rd grade secondary school reading curriculum documents and classroom instruction?</i>	-EST course book -EST work book -EST reading classroom observation.
<b>Research Question (2):</b> <i>What learner roles are reflected in the Yemeni EST 3rd grade secondary school reading curriculum documents and classroom instruction?</i>	-EST course book. -EST work book. -EST teacher's book. -EST reading classroom observation.
<b>Research Question (3):</b> <i>What teacher roles are reflected in EST 3rd grade secondary school reading comprehension documents and classroom implementations?</i>	-EST course book. -EST teacher's book. -EST reading classroom observation.
Research Questions for PART TWO	Source
<b>Research Question (4):</b> <i>How explicitly is the reading skill used to achieve the learning outcomes in the Yemeni EST 3rd grade secondary school curriculum documents?</i>	-EST course book. -EST work book.
<b>Research Question (5):</b> <i>What types of reading tasks are reflected in the Yemeni EST 3rd grade of secondary school reading curriculum documents and classroom instruction?</i>	-EST course book. -EST work book. -EST reading classroom observation.
<b>Research Question (6):</b> <i>What readability level, types and length of reading passages are reflected in the Yemeni EST 3rd grade of secondary school textbook?</i>	-EST course book only because the reading passages are only presented in this book.
<b>Research Question (7):</b> <i>What level of cognitive demand of reading tasks is reflected in the Yemeni EST 3rd grade secondary school curriculum documents and classroom instruction?</i>	-EST course book. -EST work book. -EST reading classroom observation.

Thus, three types of data were collected for the purpose of the present study:

- Reading related statements in the EST 3rd grade course book, workbook, Teacher's book as well as classroom transcripts.
- Writing related statements, listening related statements and speaking related statements in the EST 3rd grade course book and workbook.
- Reading passages in the EST 3rd grade course book.

### 3.8 DATA ANALYSIS

The collected Data from EST course book, workbook and teacher's book were coded based on the previously determined categories. The elicited reading related statements from classroom observation transcripts were also coded and then transferred into the observation sheets to be analysed later. The data analysis framework for each research question of the total seven research questions are presented below based on the theoretical framework that was presented in Chapter One (1.3).

#### 3.8.1 Research Questions for PART ONE

##### 3.8.1.1 Research Question (1)

*What second language acquisition (SLA) and second language (L2) reading theories and instructional approaches are reflected in the Yemeni EST 3rd grade secondary school reading curriculum documents and classroom instruction?*

This question was answered in two parts, which the first part is related to the theories of and instructional approaches to SLA, and the second part is related to the theories and instructional approaches to L2 reading.

### 3.8.1.1.1 SLA Theories and Instructional Approaches

SLA theories and its instructional approaches that are reflected in the Yemeni EST 3rd grade reading curriculum were analysed by inferring the different related statements in 3rd grade EST secondary school curriculum in reference to the three main theories, namely, structural theory, cognitive theory and socio-cognitive and socio-cultural theory and their instructional theories.

The L2 reading instructional approaches such as the *Grammar Translation Method* and *Audio Lingual Method*, which emphasize on allocating major part of reading class to teach the grammatical rules by utilizing the mother language in translating new vocabulary in the text (Nakatsugawa, 2009) might be reflected in the *behaviourism/structuralism theory*. Therefore, examples of statements that can be inferred from the selected documents as part of the structural theory are presented below in Table 3.7

**TABLE 3.7:** Examples of Reading Tasks Reflected the Structuralism Theory and Instructional Approaches

<b>EST Documents</b>	<b>Structural Theory</b> (e.g., <i>Grammar Translation Method, Audio-Lingual Method, Total Physical Response, and Oral Approach</i> )
<b>EST Course Book</b>	<ul style="list-style-type: none"> <li>• Find examples of comparison and contrast in the text.</li> <li>• Find examples of passive, verbs, infinitive verbs and punctuation from the text.</li> </ul>
<b>EST Work Book</b>	<ul style="list-style-type: none"> <li>• Read the extract carefully and find examples of description, changed focus and joined sentences in the text, suffixes, prefixes, compound words, comparatives and superlatives, modal verbs, and reflexive pronouns.</li> <li>• Find words or phrases in the text “Armenia- 7, December 1988” that mean the following.</li> </ul>
<b>EST Classroom Observation</b>	<ul style="list-style-type: none"> <li>• How do you spell ‘Crossbreeding’?</li> <li>• Read the first paragraph and underline the difficult words.</li> <li>• What is the meaning of naturalize?</li> <li>• What does ‘a’ in the title of the text “A Drive in the Country Side” mean?</li> </ul>

Regarding the second theory, *the cognitive theory*, which accounts on practicing different mental activities in the readers mind apart from any grammatical rule inclusion or communicative activities, Table 3.8 shows examples of the reading tasks found in the selected documents in this study and inferred as part of the cognitive information processing theory:

**TABLE 3.8:** Examples of Reading Tasks Reflected the Cognitive Information Processing Theory

EST Documents	Cognitive Information Processing Theory
EST Course Book	<ul style="list-style-type: none"> <li>• Look at the pictures and read the title of the magazine article. What do you think the article is about? What or who is Rama?</li> <li>• Read this description of “A drive in the Country side”. As you read, try to imagine the scene as the driver travels through the countryside.</li> </ul>
EST Work Book	<ul style="list-style-type: none"> <li>• Read about the description of 6 people in their last year at school. Fill in the table about: What are they good at? What are their interests? What are they like?</li> <li>• Read the text about “Agriculture in Northern Yemen” again carefully and transfer the information to fill in the table.</li> </ul>
EST Classroom Observation	<ul style="list-style-type: none"> <li>• Read the introductory paragraph and tell me what the text is about?</li> <li>• Read the text a loud. Say what is the paragraph about?</li> <li>• Read the text and answer the following questions:               <ol style="list-style-type: none"> <li>1) How many things were described in the text?</li> <li>2) What are the cows and farmer doing? What are they looking for?</li> </ol> </li> </ul>

Although the third theory, integrates views of socio-cognitive theory and socio-cultural theory of language learning, in both theories, the application rely on both communicative tool and psychological tool that mediates meaning between learners and learning goals leading to developing the learners' cognitive processes (Anton, 1999; Lantofl, 1994). Thus, it is clear that most of the communicative language teaching approach principles in L2 reading instruction fall under this theory. Starting from the socio-cognitive theory of SLA, in the data analysis, statements such as those listed below in Table 3.9 were inferred as a representation for socio-cognitive theory of language learning:

**TABLE 3.9:** Examples of Reading Tasks Reflected the Socio-Cognitive Theory and Instructional Approaches

EST Documents	Socio-Cognitive Theory (Content-Based Instruction / Task-Based Instruction)
EST Course Book	<ul style="list-style-type: none"> <li>• Read the article. Is it possible to crossbreed a cat and a dog?</li> <li>• Discuss: in what way is the moon important in daily life?</li> </ul>
EST Work Book	<ul style="list-style-type: none"> <li>• Is it right to crossbreed animals to make new animals? What do you think?</li> <li>• Before you read the text discuss these questions: what is radio activity, what are its dangerous effects, what can it be used for</li> </ul>
EST Classroom Observation	<ul style="list-style-type: none"> <li>• While reading the text, imagine the scene, and then describe the scene that you imagined.</li> </ul>

On the other side, the socio-cultural theory of SLA was also inferred in L2 reading instructional approaches such as Content-Based to ESL instruction, Whole Language Reading instruction, and Task-Based instruction (Sidek, 2010). In the data analysis, statements such as the following were coded as the socio-cultural theory of language learning:

**TABLE 3.10:** Examples of Reading Tasks Reflected the Socio-Cultural Theory and Instructional Approaches

EST Documents	Socio-Cultural Theory (Content-Based Instruction / Task-Based Instruction)
EST Course Book	<ul style="list-style-type: none"> <li>• Discuss with your partner similar information in the text about southern Yemen</li> <li>• Discuss: the internal combustion engine was invented at the end of the last century. We are now at the end of the twentieth century? Is it time for a new source of power?</li> </ul>
EST Workbook	<ul style="list-style-type: none"> <li>• Before you read the text discuss: what radioactivity can be used for?</li> <li>• In relation to the text about "Radioactivity". Do you think unclear power will ever replace oil?</li> </ul>
EST Classroom Observation	<ul style="list-style-type: none"> <li>• Have you heard before whether the tiger and the lion are members of the cat family or the dog family?</li> <li>• Before reading the text, describe any think you can see in the pictures, what do you know about them?</li> </ul>

### 3.8.1.1.2 L2 Reading Theories and Instructional Approaches

In addition to analysing the three prominent SLA theories and instructional approaches in the selected documents, this study also analysed the three main L2 reading processes theories, which were reviewed in Chapter Two; i.e. *Bottom-Up* theories, *Top-Down* theories, and *Interactive* theories. All the reading statements were extracted from the selected documents and coded according to the three mentioned theories. Examples of statements, which represented the bottom-up, top-down and interactive reading theories are illustrated in Tables 3.11, 3.12 and 3.113 below.

**TABLE 3.11:** Examples of Reading Tasks as Reflected Bottom-Up Theory and Instructional Approaches

<b>EST Documents</b>	<b>Bottom-Up Information Processing Theory</b> <i>(Grammar Translation Reading Instruction)</i>
<b>EST Course Book</b>	<ul style="list-style-type: none"> <li>• Read how to work out the meaning of words. Then, look at the underlined words again. Say which clue helped you to understand the meaning.</li> <li>• From the texts in this unit find examples of the sequence words, passive and active forms.</li> </ul>
<b>EST Work Book</b>	<ul style="list-style-type: none"> <li>• Work out the meaning of the underlined words in the text.</li> <li>• Read the notes below about two types of questions. Practice them.</li> </ul>
<b>EST Classroom Observation</b>	<ul style="list-style-type: none"> <li>• Read the text. Is “disappear” in a present tense or past tense? What is its past participle?</li> <li>• What does the word “intense” in the text mean?</li> <li>• Read the text and underline the new vocabulary.</li> </ul>

**TABLE 3.12:** Examples of Reading Tasks Reflected the Bottom-Up Theory and Instructional Approaches

<b>EST Documents</b>	<b>Top-Down Information Processing Theory</b> <i>(Non-Interactive Whole Language Instruction)</i>
<b>EST Course Book</b>	<ul style="list-style-type: none"> <li>• Scan the five paragraphs about “Agriculture in Northern Yemen”. What type of information is in each paragraph?</li> <li>• Read the story about “The Mystery of the Mary Celeste” and find out what is the mystery?</li> </ul>
<b>EST Work Book</b>	<ul style="list-style-type: none"> <li>• Read the conversation in page 26 and answer the following questions: 1) what are the ingredients, 2) when does Jane’s mother prepare her ingredients, 3) which ingredients go in first and what goes in next, 4) for how long does she fry the pieces of fish?</li> </ul>
<b>EST Classroom Observation</b>	<ul style="list-style-type: none"> <li>• From what you we have learned from text, tell me what is the Rama?</li> <li>• What is the main idea of the text “An Unusual Animal”?</li> </ul>

**TABLE 3.13:** Examples of Reading Tasks Reflected the Interactive Theory and Instructional Approaches

EST Documents	Interactive Theory (Content-based Instruction / Task-based Instruction)
EST Course Book	<ul style="list-style-type: none"> <li>• Since “The Mystery of the Mary Celeste” was found, many people have tried to explain the mystery. Do you believe any of the explanations below? If not. Why?</li> </ul>
EST Work Book	<ul style="list-style-type: none"> <li>• Use the information you know about the text to answer the following questions: 1) why do you think the writer decided to go for a drive? 2) Why do you think he chose to drive into the hills and mountains?</li> <li>• Write a letter of application in response to the job advertisement.</li> </ul>
EST Classroom Observation	<ul style="list-style-type: none"> <li>• How many states of matter do you know? What happens when we heat the ice?</li> <li>• Discuss how the matter changes into the different states.</li> <li>• How do you see crossbreeding between animals? Is it good phenomenon or not? Why?</li> </ul>

All statements in the selected documents were coded in terms of the above mentioned SLA theories and L2 reading theories and their instructional approaches. And finally, the percentages of each used theory were extracted to find out the dominant theory in the Yemeni EST 3rd curriculum. Classroom observation sheet were also analysed by applying the same procedure.

### 3.8.1.2 Research Question (2)

*What learner roles are reflected in the Yemeni EST 3rd grade secondary school reading classroom instruction?*

The learner role in the instructional system is very important in analysing the curriculum. Richards and Rodgers (2001, p. 27) stated that “The design of an instructional system will be considerably influence by how learners are regarded”. Based on Richards and Rodgers (2001), the learner role in the Yemeni 3rd grade reading curriculum were analysed in terms of patterns of learners grouping. This analysing reflected the teacher’s instructional methods that led the learner learning context. On the other hand, the learner role were analysed from statements found in the selected curriculum of the current study.

From the researcher’s preliminary review of the selected documents, as it is categorised by Richards and Rodgers (2001), there are two major types of learner roles; i.e., individual and pairs/groups. These two types of learner role draw the distinction between the traditional instructional approaches and the communicative language approaches (Ozsevik, 2010). In the selected documents the *individual* reading tasks reflected the traditional learning approach such as GTM and ALM, while the *pair/group* tasks reflected the CLT approach. Thus, analysing the learners’ role in terms of grouping was conducted based on the two categories of tasks; which are individual tasks and pair/groups tasks. Examples of the reading statements as the representation of each category are presented below in Table 3.14.

TABLE 3.14: Examples of Patterns of Learner Groupings

EST Documents	Example of Reading Statements	Learner role
EST Course Book	• Read the conversation. Which girl is Kate?	Individual
	• Discuss what other Arabic scientist do you know? And in what way are they important.	Pair/group
EST Work Book	• Read the description of the way bees are frozen and answer the following wh-questions.	Individual
	• Use the flow chart below to tell your partner how to cook scrambled egg.	Pair/group
EST Teacher's Book	• Use the pictures and title to introduce the topic. Have pupils read the instructions, elicit possible answers, do not confirm any answers yet.	Individual
	• (Read to identify people). Give pupils enough time to read and discuss conversation 2 before eliciting the answer. Elicit a description of the girl	Pair/group
EST Classroom Observation	• Read the text. How can you describe the air?	Individual
	• I will read a loud and you listen. Then, tell me was the description start from near things or far.	Pair/group

### 3.8.1.3 Research Question (3)

*What teacher roles are reflected in EST 3rd grade secondary school reading comprehension documents and classroom implementations?*

Richards and Rodgers (2001; 1986) consider the teacher role as part of the design component of the method which can be examined in the procedures of the method of language teaching analysis model. Based on the procedure elements of Richards and Rodgers (2001), the teacher role were analysed in terms of the

interactional patterns, either as communicative pattern in which the teacher is a catalyst/facilitator or as Initiation-Response-Evaluation (IRE) pattern in which the teacher is a director/instructor as it is stated in the traditional grammar-translation teaching method. Accordingly, the *procedure* in Richards and Rodgers Model (2001) were analysed based on these two patterns. Examples of the statements that represented the teachers' role patterns are presented in Table 3.15 below.

TABLE 3.15: Examples of Patterns of Teacher Role

EST Documents	Example of Reading Statements	Teacher role
EST Course Book	<ul style="list-style-type: none"> <li>• Read the short text then fill in the sheet below.</li> <li>• Discuss what other Arabic scientist do you know? And in what way are they important.</li> </ul>	Director Catalyst
EST Teacher's Book	<ul style="list-style-type: none"> <li>• Give pupils several minutes to read the article. Encourage them to skip over words that they do not know for the time being + they will have an opportunity for detailed reading when doing the Workbook activities. When they have finished, ask them the questions.</li> <li>• (Have pupils re-read the first paragraph of the text on PBS. Then have them write short answers to the questions on their own. When they have finished, have them discuss their answers with a partner</li> </ul>	Director Catalyst
EST Classroom Observation	<ul style="list-style-type: none"> <li>• Read the text. What is the main idea of each paragraph?</li> <li>• I will read a loud and you listen. Then, tell me was the description start from near things or far.</li> </ul>	Director Catalyst

### 3.8.2 Research Questions for PART TWO

#### 3.8.2.1 Research Question (4)

*How explicitly is the reading skill used to achieve the learning outcomes in the Yemeni EST 3rd grade secondary school curriculum documents?*

In order to analyse the degree of emphasis on reading skill in the selected documents of the *EST* 3rd grade secondary curriculum, the following procedures were conducted:

1. Analysing the frequency of English language tasks for all reading, writing, listening, and speaking skills in the *EST* 3rd grade course book and work book (See Table 3.16).

**TABLE 3.16:** Examples of EST Skills Analysis in EST Curriculum Documents

EST Skills	EST Tasks in Course Book and Work Book
<i>Listening</i>	<ul style="list-style-type: none"> <li>• Listen to description of two men and match the correct the correct description with the picture.</li> <li>• Listen to conversation and tick the correct information</li> </ul>
<i>Speaking</i>	<ul style="list-style-type: none"> <li>• Work with your partner; discuss how you could make your descriptions more like the one you heard.</li> <li>• Role play a telephone conversation with your partner</li> </ul>
<i>Reading</i>	<ul style="list-style-type: none"> <li>• Read the paragraph and complete the sentence</li> <li>• Read the description of people and fill in the table.</li> <li>• Read the text and write short answers to the questions</li> </ul>
<i>Writing</i>	<ul style="list-style-type: none"> <li>• Write sentences using have or get.</li> <li>• Write the ending of the story below</li> </ul>

2. The emphasis of the reading tasks elicited from the EST 3rd grade course book and work book, were coded as explicit or implicit tasks (See Table 3.17).

TABLE 3.17: Examples of the Emphasis on Reading Skill as Implicit or Explicit Skill

<i>Explicit Emphasis on Reading</i>	<i>Implicit Emphasis on Reading</i>
<ul style="list-style-type: none"> <li>• Read the description of people and fill in the table.</li> <li>• Read the text and write short answers to the questions.</li> <li>• Read the introduction and discuss Newton's words through answering open ended questions.</li> </ul>	<ul style="list-style-type: none"> <li>• Read the conversation and decides which piece of luggage belong to the passenger (For listening objective).</li> <li>• Read the conversation, and say which girl is Kate? (For listening objective).</li> <li>• Read the job advertisement. Then, write a business letter. (For writing objective)</li> </ul>

3. Counting the frequency and then Calculating the percentages of the explicit reading statements appear in the EST 3rd selected documents compared to the implicit ones.

### 3.8.2.2 Research Question (5)

*What types of reading tasks are reflected in the Yemeni EST 3rd grade of secondary school reading curriculum documents and classroom instruction?*

The types of reading tasks found in the selected documents were analysed by using Anderson et al.'s (1991) reading task coding. This reading task coding categorizes reading tasks into three main categories, namely, identifying of main ideas (*skimming*), identifying details (*scanning*), and drawing inferences (*careful reading*).

The selection of this coding category was based on the researcher's preliminary review of the curriculum documents of interest, and the fact that the majority of the reading tasks appeared to fall into these three types of reading task. Examples of the statements that reflect the three categories of reading tasks are presented in Tables 3.18, 3.19 and 3.20.

**TABLE 3.18:** Examples of Reading Statements in the Identifying Main Ideas Category

<b>EST Documents</b>	<b>Example of Reading Statements</b>
<b>Course Book</b>	<ul style="list-style-type: none"> <li>• Read the summary below and answer the wh-questions as fast as you can.</li> <li>• Read the news flashes of “Armenia – 7, December 1988”. What was it about?</li> </ul>
<b>Workbook</b>	<ul style="list-style-type: none"> <li>• Read the job advertisement below and say what kind of work would applicants have to do in this job?</li> <li>• Read quickly as fast as you can and answer the open-ended questions.</li> </ul>
<b>EST Classroom Observation</b>	<ul style="list-style-type: none"> <li>• Read as quickly as you can and answer the following questions.</li> <li>• Read the paragraphs and identify the main idea of each paragraph.</li> </ul>

**TABLE 3.19:** Examples of Reading Statements in the Identifying Details Category

EST Documents	Example of Reading Statements
<b>Course Book</b>	Read the text below and say: <ul style="list-style-type: none"> <li>• Which city was totally flattened?</li> <li>• Where was the president when earthquake hit?</li> </ul>
<b>Workbook</b>	Read the text. Then answer the following: <ul style="list-style-type: none"> <li>• How many new flashes are there on the page?</li> <li>• When did the first arrive?</li> <li>• When did the most recent arrive?</li> </ul>
<b>EST Classroom Observation</b>	From the text you being read, <ul style="list-style-type: none"> <li>• What about the cat family? And the dog family?</li> <li>• Can we crossbreed between them?</li> </ul>

**TABLE 3.20:** Examples of Reading Statements in Making Inferences Category

EST Documents	Example of Reading Statements
<b>Course Book</b>	<ul style="list-style-type: none"> <li>• Read the explanation of many people to the mystery and say which explanation do you believe more, why, why not?</li> <li>• Read the explanation of many people to the mystery and say which one is the best?</li> </ul>
<b>Workbook</b>	<ul style="list-style-type: none"> <li>• Read the text and based on your understanding for the Kinetic theory, which was explained in the text, answer the open ended questions.</li> <li>• Read job advertisement and think about the job's requirements</li> </ul>
<b>EST Classroom Observation</b>	<ul style="list-style-type: none"> <li>• If you tried to crossbreed the cat and the dog, what can you get?</li> <li>• Before reading the text, tell me which of the animals in the pictures have you seen? Describe them.</li> </ul>

During the preliminary review, it was found that some statements of reading tasks in the selected documents do not fall into the three categories of Anderson's et al. (1991). Those statements focus on recognition, identification linguistic features and

correct pronunciations. Such statements were analysed by using a category named *Reading Fluency Skill* category. This category was previously categorised and used by Sidek's (2010) study. It involves reading tasks for the purpose of writing, grammar, vocabulary and fluency.

After collecting the data from the selected documents, the frequency of the reading tasks were counted and then converted into percentages in order to know if the Yemeni 3rd grade secondary school students were well prepared for the reading tasks that are expected for them when reading their academic texts at the university level.

### 3.8.2.3 Research Question (6)

*What readability level, types and length of reading passages are reflected in the Yemeni EST 3rd grade of secondary school textbook?*

The data of this research question were examined in terms of the readability level, the types of reading passages, and the length of reading passages.

#### 3.8.2.3.1 Readability Level of Reading Passages

The most challenging part in textbooks design is to analyse the readability (Rottensteinera, 2010), and the best predictors of textual difficulty are semantic and syntactic structure of passages (DuBay, 2004). Both syntactic and semantic structure can be determined by using readability formulas, which are strictly text-based (Kasule, 2011). Four popular readability formulas, namely, the Flesch Reading Ease Index (Flesch, 1948), the Fry Index (Fry, 1968), and the Flesch-Kincaid Grade Level (GL) Score (Sheehan et al., 2010; Kincaid et al., 1975). In these three formulas, the

syntactic complexity is measured in terms of average sentence length, while the semantic difficulty is measured via calculating the average word length in syllables (Sheehan, et al., 2010). In analysing this research question, Flesch Reading Ease (FRES) readability test and Flesch-Kincaid Grade Level test were used.

Flesch-Kincaid Grade Level (GL) (Kincaid, et al., 1975) formula was used to analyse the readability grade level of text in terms of average sentence length (syntactic complexity). Besides, the average word length was measured in syllables (semantic complexity). Specifically, this readability formula was selected because it is one of the best formulas to predict the complexity of informational texts and also it is the most regularly tested formula (Sheehan, et al., 2010; DuBay, 2006). The Flesch-Kincaid Grade Level is an index that gives the required years of education to comprehend a document. For example, a document with a Flesch-Kincaid Grade Level score of 10 requires a reader with about 10 years (a 10th grade level) of education to comprehend the document. Thus, for the current study the results should show the higher score because 3rd grade secondary school students are in their 12th year of formal education which it is the highest pre university level in Yemen. The formula for the Flesch-Kincaid Grade Level score is presented below:

$$(.39 \times \text{ASL}) + (11.8 \times \text{ASW}) - 15.59$$

Where:

ASL = average sentence length

=  $\frac{\text{the number of words}}{\text{the number of sentences}}$

ASW = average number of syllables per word =  $\frac{\text{the number of syllables}}{\text{the number of words}}$

The Flesch Reading Ease (FRES) formula was used in order to find out the complexity level of passages. Flesch Reading Ease formula was selected because it is the most widely used and the most tested and reliable one (DuBay, 2006; Klare, 1963). Flesch software program version 2.0 was downloaded from <http://flesh.sourceforge.net/>. The combination of these two formulas was selected to analyse the readability of EST 3rd grade reading passages because they are the best formulas for readability analysis. The Flesch Reading Ease Score uses a scale of 0 to 100, Table 3.21 provides interpretation of the Flesch Reading Ease Score (DuBay, 2004) was extracted from (Heydari, 2012).

**TABLE 3.21:** Interpretation of the Flesch Reading Ease Score (DuBay, 2004)

Reading Ease Score	Description	Predicted Reading Grade
0-30	Very difficult	College graduate
30-40	Difficult	College grade
50-60	Fairly difficult	10th-12th grade
60-70	Standard	8th-9th grade
70-80	Fairly easy	7th grade
80-90	Easy	6th grade
90-100	Very easy	5th grade

(Source: Heydari, 2012, p.424)

As shown in Table 3.21 the Reading Ease formula ranges from 0 to 100, for example if a text scores for instance 100; it is implied to be very easy and to be understood by an average student at the 5th grade in the USA. According to Flesch (2006) a text with a Reading Ease score of 100 should be very easy for any one while a score of 0 denotes a text that is practically unreadable. Table 3.21 also shows that range 40-50 was left out in DuBay's Table for interpreting Flesch Reading Ease Score.

The reason of the neglecting of this range is not clear (Heydari & Riazi, 2012 as cited in Heydari, 2012). As the findings of current study showed a passage with reading ease score (46.6), the research included the range 40-50 as follows:

30-45 = Difficult ((College grade))

45-60 = Fairly difficult ((Secondary school grade (10th, 11th and 12th grade) ))

Thus, based on Flesch reading ease score and the modification that has been done on it by the researcher of current study, Flesch Reading Ease score in the current study should be in the range of 45-60 as the EST 3rd grade secondary school represents the 12th level of education. Flesch Reading Ease Score test measures the difficulty level of reading texts and predicts the typical grade level of students as shown in Table 3.21. However, Flesch's tests were developed for measuring reading difficulty for native English readers, their validity in measuring EFL reading difficulty was proved by Greenfield (1999) as cited in Greenfield (2004), who found that readability formulas for native readers also valuable tools for measuring the readability level of texts for EFL learners. The Flesch Reading Ease Score can be calculated by using the following equation. The formula for the Flesch Reading Ease:

$$FRES = 206.835 - (1.015 \times ASL) - (84.6 \times ASW)$$

Where:

ASL = average sentence length

=  $\frac{\text{the number of words}}{\text{the number of sentences}}$

ASW = average number of syllables per word =  $\frac{\text{the number of syllables}}{\text{the number of words}}$

### 3.8.2.3.2 Types of Reading Passages

Most of the studies that examined text types focused on two main types: narrative and expository (Wolper & vacca-Rizopoulous, 2012; Brown, 2011; Shokouhi et al., 2009; Wolfe & Mienko, 2007; Zabucky & Moore, 1999). The narrative texts typically include a story structure (Brown, 2011) and intend to entertain the reader (Pyle, 2013), while the expository texts are more abstracted (Best et al., 2008) and complex (Brown, 2011), they intend to provide the reader with general information (Pyle, 2013) and hence they are called informational texts (Fludernik, 2000). Based on the different structures/features of the narrative and expository text types, passages in EST 3rd grade secondary school textbook were labelled as either expository or narrative. As this study examined the EST program, it was expected that the majority of the texts would be expository. Samples of expository and narrative texts are provided in Appendices 23, 24 & 25.

### 3.8.2.3.3 Length of Reading Passages

Although the effect of original long passages, in contrast to the simplified short passages on reading comprehension has been widely studied (Jalilehvand, 2012; Beach, 2008; Chujo & Utiyama, 2005; Mehrpour & Riazi, 2004; Oh, 2001; Newsom & Gaité, 1971; Richards, et al., 1992), it is still an inconclusive issue whether short passages or authentic original long passages are the best in facilitating reading comprehension and the best method to be used in L2 reading comprehension instruction. There are some studies, which found positive effects of short simplified passages on reading comprehension (Newsom & Gaité, 1971; Oh, 2001), and there are other studies, which did not (Jalilehvand, 2012; Chujo & Utiyama, 2005; Mehrpour & Riazi, 2004).

Taking into consideration that previous researchers did not consider the grade level while examining the length of text, but they only focused mainly on the effect of simplified text or original length of texts on reading comprehension (Crossley et al., 2007), it is important to examine whether the texts that the students are trained with at the secondary school level match the students' grade level.

Since, this study used Sidek's (2010) framework of, the length of texts were measured by specifically analysing if the texts are compatible with grade-level texts. Leslie and Caldwell's Qualitative Reading Inventory (QRI 3 & 4) (Leslie & Caldwell, 2004, 2006) were used to analyse the grade level of texts. The selection of these inventories, as they are justified by Sidek (2010), was due to the unavailability or inexistence of any other published inventory for grade-level texts in terms of length for L2 reading context. Based on these inventories, the grade-level of length of passages for 3rd grade secondary school level should be between 470-550 words. The words' number for both types of texts was calculated by using Microsoft Office Word 2010 and then interpreted as following:

1. Texts with 470 words and above were considered as grade level for the Yemeni EST 3rd grade secondary school.
2. Texts with less than 470 words were considered inappropriate for senior secondary school level in Yemen (Yemeni EST 3rd grade secondary school).

### 3.8.2.4 Research Question (7)

*What level of cognitive demand of reading tasks is reflected in the Yemeni EST 3rd grade secondary school curriculum documents and classroom instruction?*

As the current study replicated Sidek's (2010) study, to find out the level of the cognitive demands of reading tasks, the combination of Marzano et al.'s (1988) Core Thinking Skills taxonomy (Marzano et al., 1988) and Marzano's Cognitive System taxonomy (Marzano, 2000) were used.

The combination of these taxonomies were used because Marzano's taxonomy of thinking skills combines a wide range of thinking skills (incorporated in Self-System, the Metacognitive System, and the Cognitive System), and also presents how the students think. Table 3.22 presents examples of reading tasks in each cognitive demand category as reflected in the EST 3rd grade reading curriculum documents.

**TABLE 3.22:** Examples of Reading-Reflected Statements in Marzano's Cognitive System taxonomy (2000) and Marzano et. al.'s Core Thinking Skills taxonomy (1988)

Lower-Level Skills
<p><b>1. Focusing skill:</b> <i>Emphasising on selecting a particular piece of information while exclude others.</i></p> <ul style="list-style-type: none"> <li>• Read the text and know the difference between different between vowels.</li> <li>• Read the text and find out the meaning of the following words.</li> <li>• Read the sentences and underline the more suitable form of the verb</li> </ul>
<p><b>2. Information-gathering skill:</b> <i>Obtaining information through observation and formulating questions and clarifying meanings and through inquiry.</i></p> <ul style="list-style-type: none"> <li>• Read the topic about Arab scientists; what other Arab scientists do you know why are they important?</li> </ul>

**3. Recalling/Remembering skill:** *Reproducing pertinent information from what have been stored in the learner's long term memory.*

- Listen to a woman talking about a special day in her life. Are the statements below true or false?
- Read the text. What important things happened in the following dates?
- Cover the text and describe to your partner the four-stroke cycle, using the diagram.

### Higher-Level Skills

**4. Organizing skill:** *Arrange information so that it can be understood or presented effectively through:*

a) *Comparing information in relation to the similarities and differences*

- Read the advertisement and compare and contrast the two products

b) *Classifying information into group based on their entities*

- Read the text and match the phrases into the meaning

c) *Ordering information in sequence based on specific criteria and logical manner*

- Read the passage and make the sentences in descending sequence

d) *Representing the same information in different form*

- Read the description and use the information to fill in the flow chart.

**5. Applying skill:** *Utilizing pertinent prior knowledge in a new situation*

- After reading the text about the light elicit a new source for the light from the students.

**6. Analysing skill:**

a) *Identifying details of character or determining parts of things*

- Read the text and answer the open-ended questions for details

b) *Identifying relationships among items*

- Read the text about water states and explain the cause and effect

c) *Identifying and extracting the main idea*

- Read the introduction and say what does the text about

c) *Identifying errors and correct them where possible*

- Read the information about writing up experiment, find out what is wrong with this report

**7. Synthesizing skill:** *Identifying and extracting the most significant part and delete the others*

- Read the story and write a conclusion

- Read through the experiment. What did Aisha want to prove? Did she succeed?

- Re-read the passage and use the underlined parts to write paragraph.

**8. Generating skill:**

- a) *Inferring information from beyond the text to declare what can be reasonably true.*

- Read the headline and look at the photograph in the newspaper article, what do you expect to read about?
  - Look at the article below, what sort of magazine do you think it is from
  - Read the conversation and decide who the interviewer was interviewing
- b) Predicting the outcome of the context by anticipating the upcoming events*
- Look at the article below, how does it connected with last lesson?
  - Before starting reading the text write the title of the lesson and elicit the definition from the students
  - Read the first part of the story and write its ending
- c) Elaborating information by adding relevant information for explanation*
- Read the information in the flowchart to write description of the process.

**9. Integrating skill:**

*a) Summarizing by combining information into cohesive statement.*

- Read the text and fill in the sheet

*b) Restructuring by adding new information and change existing knowledge structures.*

- Read the passage carefully and think about how it is organized

**10. Evaluating skill:**

*a) Establishing criteria by making judgement*

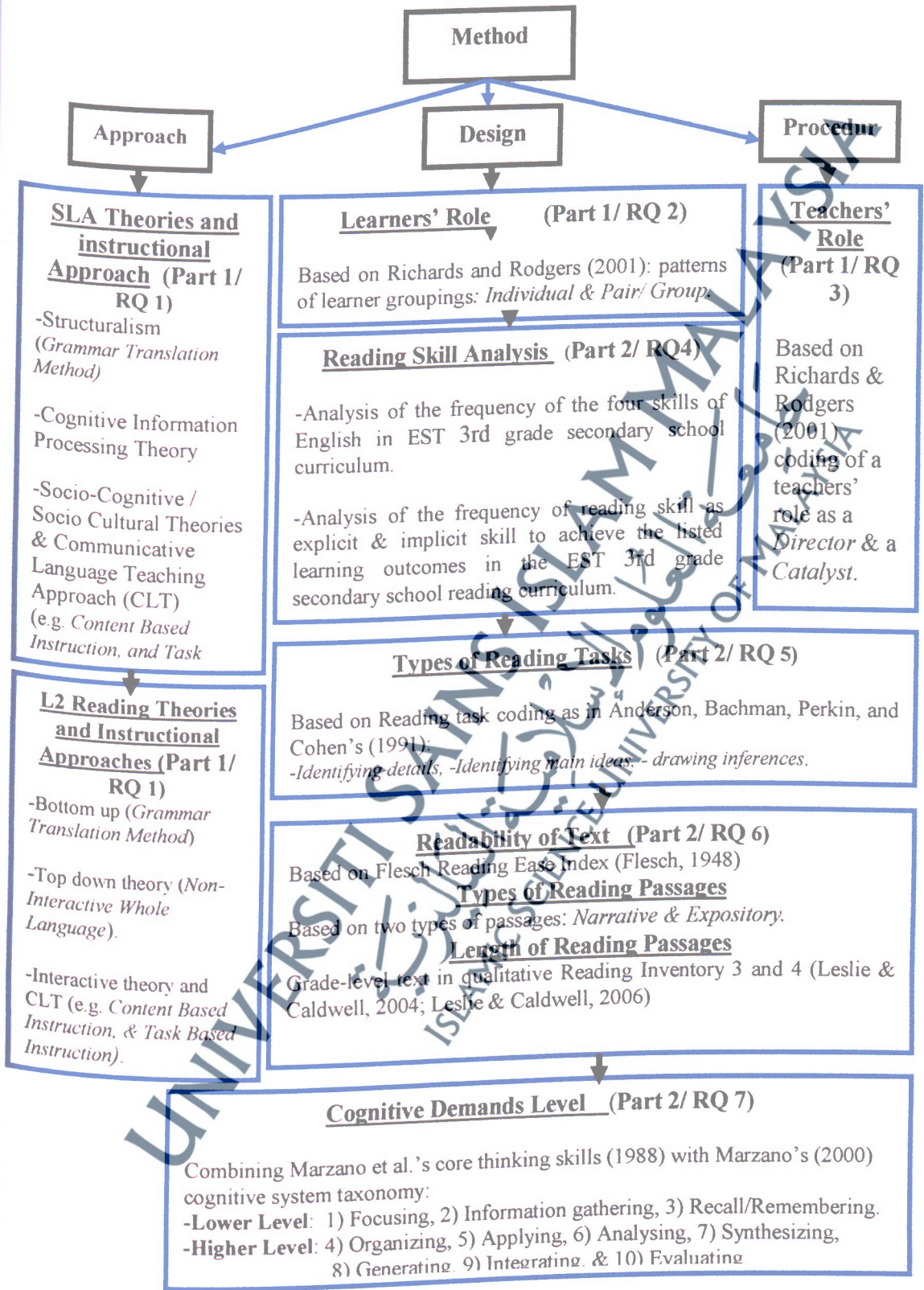
- Look at the mystery explanation below, do you believe of any of them. If not, why not?

*b) Verifying by prove truth of claims*

- Read the information and write explanation for the statements.
- Read and discuss the statements.

The obtained results from analysing the cognitive demands of the reading tasks at the EST 3rd grade secondary school level represented the mastery level of EST students for the information processing of written texts that is required at the tertiary level. Specifically, if the cognitive demands of the reading tasks in the EST 3rd secondary reading curriculum are mainly at the higher level of the Marzano's taxonomies that means that students are prepared to deal with reading tasks which require high cognitive demand at the tertiary level and vice versa. Figure 3.7 presents a summary of the analytical framework of the data analysis of presents study as presented in section 3.8.

**FIGURE 3.7:** Analytical Framework of the Current Study



### 3.9 RELIABILITY PROCEDURES

As the current study conducts content analysis procedures, inter-rater (inter-coder) reliability was needed to be conducted in order to insure the reliability of the data (Lombard et al., 2004). In this context, Weber (1990, p. 12) declared that “To make valid inferences from the text, it is important that the classification procedure is reliable in the sense of being consistent “Different people should code the same text in the same way”. Without establishing the reliability of the data, content analysis procedures are impractical and unusable (Neuendorf, 2002). Moreover, Lombard et al. (2004) stated that the reliability procedure is an essential principle for validity in the study. Thus, for the content analysis reliability, calculating and reporting the inter-coder reliability is necessary; multiple coders for the content should be involved in the reliability procedures as the researcher cannot be one of the coders (Lombard et al., 2004). Consequently, the reliability procedures for coding the tasks related to reading skill in the current study were conducted as follows:

1. The reading related statements were elicited and the categories and the sub-categories were selected carefully.
2. Two coders, EFL experts, were selected to separately code the elicited reading statements into the selected categories.
3. The two coders were trained, familiarized and given details about the coding rules.
4. The test was executed separately by the two coders on the same content (Appendices 26 & 27).
5. The Reliability scores were determined to assess how much the data differs from the perfect reliability. In the literature there is no consensus on a single ‘perfect’ scores to test the inter-coder reliability (Lombard et al., 2002). For the purpose of the current study, the per-cent agreement reliability test was selected to measure

the consistency between the inter-coders decision. The per-cent agreement test was chosen because it is used most widely (Lombard et al., 2010; Li Cai, 2003). Per-cent agreement test is simply refers to the “percentage of all coding decisions made by pairs of coders on which the coders agree” (Lombard, et al., 2002, p. 590). Per-cent agreement calculates a percentage of coder agreement by dividing the number of agreements by the total number of measures (Neuendorf, 2007: 412). This method has been used in recent content analysis studies (e.g., Holtzhausen et al., 2011; So, 2004).

6. Neuendorf (2002) reliability index was used; as follows: more than 0.80 is reliable and less than 0.80 is unreliable.
7. Two reliability procedures were conducted:

- a) The first reliability was conducted to specify the per-cent agreement among the two coders on whether the elicited statements that were already selected by the researcher of present study were reading tasks or not by using the following formula:

$$\text{Percent agreement} = \frac{\text{Agreed number of statements by 2 coders}}{\text{Total number of statements in all documents}}$$

Regarding the reliability of the statements inferred by the researcher of current study as reading related statements from the course book, work book and classroom observation, out of a total of 82 statements that the researcher inferred them as reading tasks from the EST course book, the two coders considered 77 statements as reading tasks, reflecting 0.94 inter- coder reliability index, while out of 311 statements inferred as reading statements in the EST work book, the two coders considered 285 statements as reading tasks, reflecting 0.92 inter- coder reliability index. Besides, out

of 263 statements inferred as reading statements in the EST classroom observation, the two coders considered 259 statements as reading tasks, reflecting 0.98 inter-coder reliability index. The reliability test shows that the selection of the reading statements is highly reliable.

- b) The second reliability was conducted to measure the reliability of coding the reading related statements elicited from the EST course book, work book, teacher's book and Classroom Observation (CO) in terms of 1) SLA theories and L2 reading theories 2) learner role 3) teacher role 4) the explicitness of reading skill 5) types of reading tasks 6) types of reading passages and 7) the types of cognitive demands. For this purpose the following formula was used:

$$\text{Percent agreement} = \frac{\text{Agreed number of statements by 2 coders}}{\text{Total number of statements in all documents}}$$

Based on the research questions, 7 reliability procedures were conducted as following: the first reliability procedure was conducted to examine the reliability of SLA theories (structuralism, cognitive information processing and socio-cognitive/socio-cultural theory) which resulted in a 0.89, 0.86, and 0.90 inter-reliability indexes, respectively. The second reliability procedure examined the three L2 reading theories (top-down, bottom up and interactive) which resulted in 0.89, 0.92, and 0.87 inter reliability indexes, respectively. The second procedure was conducted to rate reliability of coding the reading tasks as tasks were designed to be run by students individually or in pairs/groups; this rating was resulted in 1.0 inter-

reliability index for individual reading tasks and 0.98 reliability indexes for pairs/groups. The third reliability was conducted to rate whether the elicited reading tasks reflect the teacher as a catalyst or a director; this rating was resulted in 0.98 and 1.0 inter-reliability index, respectively. The fourth reliability procedure, which was conducted to rate whether the elicited reading tasks were presented explicitly or implicitly in the EST curriculum as a primary means to achieve the listed learning outcomes in EST reading curriculum, was resulted in 0.89 inter-reliability index for explicit reading tasks and 0.93 inter-reliability index for implicit reading tasks. The fifth procedure was conducted to rate reliability of coding the types of reading tasks; identifying main idea, identifying details and drawing inferences, this rating was resulted in reliability indexes of 0.84, 0.89 and 0.88, respectively. The sixth reliability was conducted to rate the whether the reading passages elicited from the course book were narrative or expository, resulted in a 0.95 inter-reliability index for both variables. And finally, the seventh reliability procedure was conducted to examine the coding of the level of cognitive demands of the elicited reading tasks as low or high level; this reliability resulted in 0.89 and 0.87 reliability indexes, respectively. Thus, the reliability test shows that the findings of the current study are reliable and replicate-able.

### 3.10 DATA INTERPRETATION

The chief aim of this study was to examine the overarching approaches to second language (L2) reading instruction reflected in the Yemeni EST 3rd grade secondary school reading curriculum as well as to find out how well this curriculum prepares the Yemeni students for reading in English in the content areas at their tertiary level. In line with the main purpose of the current study, to analyse the

overarching SLA theories and instructional methods and L2 reading theories, the findings of the present study were interpreted in terms of the following:

### **3.10.1 The Alignment of Communicative Language Teaching (CLT) Approach in the Curriculum as Reflected by SLA Theories as well as L2 Reading Theories and the Corresponding Instructional Approaches**

As the EST 3rd grade reading curriculum was identified as a communicative-based curriculum, it was expected that the SLA theories, L2 reading theories and their corresponding instructional approaches, learner role and the teacher role examined in the curricular materials and data from classroom observation should be in alignment with this approach. Consequently, it was expected that the SLA theories and instructional approaches and L2 reading theories to be in harmony with the socio-cognitive and socio-cultural theories and the bottom-up and interactive reading theories. If this expectation is confirmed, this means that the EST 3rd grade reading curriculum is a communicative-based curriculum. In the same vein, it was also expected that the teacher and learner role reflect the CLT approach in which the teacher is catalyst and the majority of reading tasks require the learners to work collaboratively in pairs/small groups.

### **3.10.2 The Preparation of EST 3rd Grade Secondary School Students for Reading in English in Content Based Area at Tertiary Level**

In terms of the preparation of EST 3rd grade secondary school for English reading at tertiary level, it was expected from analysing research questions 4, 5, 6 and 7 to also reflect the communicative approach. Consequently, It was expected that the reading skill was used as an explicit means to achieve the learning outcomes, the types of reading tasks are reflected in the three categories of Anderson's et al. (1991) and

require a high level of cognitive demand of information processing, as well as, it was expected the reading texts to be expository and reflect the learners grade level in terms of readability and length.

The whole phases of present study, starting from selecting the topic and identifying the research problem until developing a model of EST reading curriculum, are summarizes in an intellectual Audit Trail (See Appendix 28).

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