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Abstract.
This study aims to determine the effectiveness of the Yemeni Senior Secondary School curriculum in preparing students for academic reading at the tertiary level. In this qualitative study, the data used comprised all reading comprehension texts in the English for Science and Technology (EST) senior secondary school textbook, and the reading instructional design was analyzed in terms of the types, readability level, and grade level of the texts. The types of reading texts were analyzed by calculating the percentages of narrative versus expository texts, Flesch Reading Ease (FRES) readability test and the Flesch-Kincaid Grade Level test were used to analyze the readability level, and the length of reading texts was calculated based on Leslie and Caldwell's Qualitative Reading Inventory (QRI 3 & 4). The findings showed a clear gap between the academic level of reading texts and the reading texts at the senior secondary school level. Approximately, all of the reading texts were found to be far below the grade level in terms of length and ability level. Moreover, not enough emphasis was given to the expository texts. The findings suggest that the Yemeni EST Senior Secondary Reading curriculum is one of the possible causes of the reading problems faced by Yemeni learners at the tertiary level. The researchers suggested a revision of the EST Senior Secondary reading instructional design.

Keywords: Readability; Length of reading texts; Expository and narrative texts; Academic Reading; Reading instructional design; Flesch reading ease and Flesch-kincaid grade level.

1. Introduction

Many non-English-speaking countries (e.g. India, Algeria, Singapore, Malaysia, Turkey, Korea, Middle East countries, and Japan,) have announced English as the most important foreign language that must be taught in schools regardless of all the challenges they face[1, 2]. Achieving a good level of competence in English will facilitate interaction between people of different nationalities and ease their

acculturation and adjustment all over the world [3-8]. It can also enhance the acquisition and processing of Baiardi information from print and electronic media [9, 10]. Although all language skills are important to successfully pursuing higher education, in ESP courses, reading proficiency is the keystone of students' academic success [11, 12]. At the university level, reading receives incomparable importance among all other language skills [13]. Considering the importance of reading skills, students need to be equipped to handle reading tasks for future higher educational settings [14].

Despite the increased interest in English reading [11, 15, 16], students still face substantial challenges in reading the vast academic texts at the tertiary level; to them, reading is a complex skill which, despite its importance, is not easily acquired [12, 17-20]. In countries where English is a foreign language, such as Yemen, textbooks designed for native speakers of English are used by college professors; hence, students must be proficient in both the English language and their subject areas to achieve the desired success [21]. However, numerous challenges are faced by English language learners and teachers in all levels of education [19, 22-24]. These challenges were found to result from the weakness of the educational system in Yemen [18].

To avoid these problems, students need to be trained at the secondary level with reading comprehension tasks that resemble the reading demands at the tertiary level. For example, exposing the students to grade-level reading texts in terms of difficulty level and length will facilitate their comprehension more than narrative texts would and will familiarise them with suitable strategies to successfully process information from this text type in the same content area [13, 25]. Past studies on EFL reading in Yemen have indicated that students find reading in English difficult at the tertiary level [26-31]. Considering that secondary school is the gateway to the tertiary level, students' ability to successfully comprehend grade-level expository texts at secondary school is essential for their academic performance at the tertiary level. However, no previous study has researched the effectiveness of the secondary school curriculum in preparing

students with reading materials similar to academic-level materials. The current study; therefore, aims to investigate how well the Yemeni EST senior secondary school curriculum grooms students for academic reading at the tertiary level by analyzing their reading texts in terms of type, readability, and grade-level. The following research questions guided the aim of the current study:

1. *What reading comprehension text types are used in the Yemeni EST senior secondary school textbook?*
2. *What readability level is reflected in the reading comprehension texts used in the Yemeni EST Senior Secondary school textbook?*
3. *How well do the reading texts used in the Yemeni EST senior secondary school textbook represent the grade level of senior secondary school?*

2. Literature review

Textbooks are regarded as the most common type of teaching material in language teaching discourse [32]. However, inappropriate textbook use can de-skill students and teachers [33]. As a result, textbook analysis is critical in determining the worth of instructional design resources [34].

It is worth noting that the importance of reviewing and revising the curriculum has been overlooked by the Yemeni MoE as the Crescent English Course for Yemen (CECY) textbooks that were introduced in 1999 are still being used today without any updates. This curriculum has been criticized by researchers in terms of different variables such as its theoretical emphasis, roles of the teacher and the learner, and emphasis on reading skills [26, 27, 30, 35, 36]. Hence, this study aims to analyze the MoE-recommended textbooks that teachers use in planning their instructional design.

The duration of secondary education in Yemen is three years (grades 10–12). Based on their academic performance at the end of grade ten, students can choose to continue their studies in either of science or humanities track. At the end of senior secondary school (grade 12), students sit for the national exam which admits them to higher

education. At the higher education level, more faculties are available for students that are enrolled in the science track than for the humanities. In the science track, English is mostly used as the medium of instruction and the academic resources are also in English in faculties such as dentistry, medicine, and pharmacy. Therefore, the senior secondary English reading texts must be at the same grade level as higher education texts in terms of length, difficulty, and type.

2.1 Types of Texts

Generally, there are two main types; narrative and expository. These two differ in their structure and the reading strategies needed for comprehension [37, 38]. Narrative texts such as poems, short stories, and novels aim to entertain the readers, while expository texts, which are also called informative texts, aim to inform and provide new scientific information [39]. Examples of expository texts are problem-solution, cause-effect, and compare-contrast [40]. The Yemeni EST Senior Secondary learners should be trained on the structure of the expository text more than any other structure because this is the text type that academic materials are based on [41, 42].

Past studies (e.g. [11, 27, 37, 38]) have declared the positive effect of text structure instruction on students' reading comprehension performance levels. Abdualameer [11] recommended that teaching students reading comprehension and reading strategies for different types of reading texts should be emphasized in the syllabus of the English language curriculum. Therefore, training students on these strategies will enhance their understanding when reading comprehension texts. Hebert et al. [38] found that text structure instruction improves the students' comprehension level while reading expository texts. In a recent meta-analysis study conducted by Pyle et al. [37], 21 studies that used expository texts as an intervention to enhance students' reading comprehension in all levels of education (kindergarten–Grade 12) between 1970 – 2013 were analyzed. The researchers suggested that expository text structures should be explicitly described and taught in the classroom. As a result, to enhance students'

reading comprehension skills at the tertiary level, they must be trained on expository text reading strategies as previously emphasized by researchers.

2.2 Readability

Readability refers to "how easily written materials can be read and understood" [43]. The readability of reading texts depends on many factors, including the length of sentences and the number and difficulty level of vocabulary [44]. According to Izgi, Seker [44], the readability level of textbooks is considered a significant tool in the teaching-learning process. Hence, the lack of readability in textbooks seems to be a noticeable deficiency. For this reason, textbooks included in the current study were examined in terms of the readability of their texts. In addition, the length of passages was predicted to be one of the factors that added to the difficulty level of the texts, as it has been established that the most difficult to read texts are the lengthiest [45].

Previous studies emphasized the importance of exposing students to readability and grade level reading texts at secondary school to prepare them to read academic texts efficiently as they will be more confident and skilled (e.g., [15, 26, 27, 40, 42, 46, 47]. Azizi [15], examined the readability level of 8 texts by second-grade junior high school students using the Flesch Reading Ease analysis and showed that the reading texts are lower than the intended students' level. Similarly, Rohmatillah [40] examined the course book used to teach senior high school (Grade 10) students in terms of the reading text types and their readability level. To analyze the readability level of the reading texts, the researcher used the Flesch readability formula. The findings reflected five different types of text. The majority of the texts (11 out of 16) were below the grade level of senior high school students.

Later in 2016, Maryansyah [47] analyzed the readability level of the Sixty-three reading texts used in teaching ninth-grade students. Out of the 63 texts, only 9 percent were in the right grade level, while 54 percent were easy for Grade 9 students, 27

percent were difficult, and 10 percent were invalid. Consequently, the researcher suggested that English language teachers and curriculum designers to be aware of the importance of the readability level of reading texts and their suitability for the intended level of students. They have to conduct a readability analysis on reading texts before implementation. Recently, Zantoni [46] examined the readability level and student perception of 16 reading texts used in English teaching for Grade 8 students at Junior High School using the Flesch Reading Ease formula and the Flesch Kincaid Grade level. It was found that the reading texts were inappropriate for eighth-grade students. Ten (62.5 percent) out of sixteen reading texts were found to be very easy for the students.

However, few studies found that the examined curriculum and textbooks presented appropriate materials for teaching EFL at the grade levels. For example, Budiarti [3] examined the readability level of English reading texts for Grade Eight students using the Fry Readability Formula (FRF) and Fog Index (FI) and found that the selected reading texts are readable and suitable for the level of intended students. Likewise, Hidayat [48] used the Flesch Reading Ease Formula only to analyze the readability level of five reading texts in an English textbook for senior high school grades and found that the reading texts under study were appropriate for the student's level.

3. Research Methodology

3.1 Research Design

This study adopted a qualitative content analysis (CA) approach [3, 15, 26, 27, 48]. The data comprised all the reading texts used in the senior secondary school textbook. This textbook consists of six core units that are divided into 12 sub-units. An additional unit for science readers constituted the seventh unit of the book. A total of 22 reading texts were collected.

3.2 Theoretical Framework

The theoretical framework of the current study is based on Sidek's model of language teaching [49]. According to the model, language teaching can be analyzed in terms of its approach and design. Given that the current study focuses on analyzing the textbooks, the theoretical framework of the design is relevant. The analysis of the types, length, and readability level of reading texts is represented in the theoretical framework of the reading instructional design developed by the MoE in Yemen.

3.3 Data Analysis

To answer question one, the reading texts found in the EST Senior Secondary School textbook were labeled as either expository or narrative. As this study examined how well the Senior Secondary school curriculum prepares the student for academic reading at the tertiary level, it was anticipated that the majority of reading comprehension texts would be expository. The percentage of each type was calculated based on their frequency in the textbook.

Table 1: Titles of EST Senior Secondary School Reading Texts

Unit	Titles of Core units	Sub units Reading texts		Science Reader texts	
1	Describing things	1.	*A Drive in the Country side.*	1.	*Acids and alkalis*
		2.	*A View from the Window*	2.	*State of Matter*
2	Reporting events	3.	*Today's News: In the Daily Post Today*	3.	*Light*
		4.	*Hurricane Hits Central America. Thousands Dead*	4.	*Sound*
3	Looking for a job	5.	*Thinking about the Future*	5.	*Arabic Scientists*
		6.	*Applying for a Job*	6.	*Vaccination*
4	Tables, flow charts and diagrams	7.	*Agriculture in Yemen*	7.	*Experimental Procedures*
		8.	*Frozen Peas*	8.	*Internal Combustion Engine*

Unit	Titles of Core units	Sub units Reading texts	Science Reader texts
5	Working things out	9. *Puzzles and Riddles* 10. *The Mystery of the Mary Celeste*	9. *The Moon* 10. *Radio Activity*
6	Looking back	11. *Emergencies in the News* 12. *A Long Life in Medicine*	
Total		**22 EST reading texts.**	

To answer the second question, the Flesch Reading Ease (FRES) readability test and the Flesch-Kincaid Grade Level test were used. The Flesch-Kincaid Grade Level (GL) formula was used to analyze the readability grade level of texts in terms of average sentence length (syntactic complexity) and the average word length in syllables (semantic complexity). Specifically, this readability formula was selected because it is one of the best formulas to predict the complexity of expository texts and it is also the most regularly tested and reliable formula [50].

The Flesch Reading Ease Score test measures the difficulty level of reading texts and predicts the typical grade level of students. The Flesch Reading Ease formula was selected because it is the most reliable method [51]. Flesch-Kincaid Grade Level is an index that gives the required years of education to comprehend a document. However, Flesch's tests were developed for measuring the readability of texts for native English speakers. Their validity in measuring EFL reading difficulty was proved by Greenfield (1999), as cited in Greenfield [52], who found that readability formulas for native readers are also valuable tools for measuring the readability level of texts for EFL learners. The combination of these two formulas was selected to analyze the readability of EST Senior Secondary School reading texts because they are the best formulas for readability analysis.

Flesch-Kincaid Grade Level Formula:

$$(0.39 \times ASL) + (11.8 \times ASW) - 15.59$$

where:

ASL = average sentence length $= \frac{number\ of\ words}{number\ of\ sentences}$

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

Flesch Reading Ease Formula:

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

where:

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

Flesch Reading Ease Score uses a scale of 0 to 100.

Table (2) provides the interpretation of the Flesch Reading Ease Score [53] as extracted from Heydari [54].

Table 2: Flesch's Reading Ease Scale [53]

Reading Ease Score	Description	Predicted Reading Grade
0-30	Very difficult	College graduate
30-40	Difficult	College level $13^{th} - 16^{th}$
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 [54], p.424)

According to Flesch's Reading Ease Scale, a text with a reading ease score of 100 should be very easy for students who have finished Grade Four, while a reading ease score of 0 denotes that a text is difficult for secondary school students. Table (2) also shows that the range 40–50 was left out in DuBay's Table for interpreting the Flesch Reading Ease Score [53]. The reason for neglecting this range is not clear [54].

To answer the third research question, Leslie and Caldwell's Qualitative Reading Inventory (QRI 3 & 4) Leslie, Caldwell [55] was used to analyze the grade level of texts. The selection of these inventories, as justified by Sidek [49], is based on the unavailability of other published inventories measuring the texts' grade-level in terms of length for FL reading context. Based on these inventories, the grade-level length of texts for the Senior Secondary school level should be between 470-550 words. The word length for both types of texts was calculated using Microsoft Word and was then interpreted as follows:

1) Texts with 470 words and above are grade-level texts.
2) Texts with less than 470 words are under the grade-level.

4. FINDINGS

4.1 Types of Reading Texts

The types of reading texts in the textbook were analyzed in terms of two categories: narrative and expository. The findings are presented in Table (3) below:

Table 3: Analysis of Reading Text Types of Reading Comprehension in the Yemeni Senior Secondary Textbook

Type of Texts	Number	Percentages
Expository	12	55 %
Narrative	10	45 %

The findings show that the reading instructional design of the Senior Secondary school exposes students to both narrative and expository text types. Out of 22 reading texts, 12 of them were expository and 10 were narrative.

4.2 Readability Level

The readability level of the senior secondary school reading texts was analysed using the Flesch Reading Ease Index and the Flesch-Kincaid Grade Level (GL) Score. The results are presented in Table (4) and Table (5) below:

Table 4: Analysis of Readability level of 22 Reading Texts in the Yemeni senior secondary Textbook

No. Reading Texts	Reading Ease		Grade Level	
1	92	Very easy to read	3.3	Grade 3
2	89	Easy to read	4.4	Grade 4
3	67.2	Standard	8.1	Grade8
4	72.1	Fairly easy to read	6.4	Grade6
5	69	Standard	5.9	Grade 6
6	69	Standard	6.8	Grade 7
7	73	Fairly easy to read	6.7	Grade 7
8	80	Easy to read	5.7	Grade6
9	91	Very easy to read	2.7	Grade3
10	74.4	Fairly easy to read	6.3	Grade 6
11	66.1	Standard	7.9	Grade 8
12	67.8	Standard	6.9	Grade 7
13	70.3	Fairly easy to read	6.4	Grade 6
14	77.8	Fairly easy to read	5.9	Grade6
15	81.2	Easy to read	5	Grade5
16	79.4	Easy to read	6.1	Grade 6
17	64.9	Standard	7.8	Grade 8
18	61.7	Standard	8.4	Grade 8
19	**46.6**	**Fairly difficult to read**	**11**	**Grade11**
20	68.6	Standard	6.9	Grade7
21	79.9	Easy to read	6.4	Grade 6
22	**52.4**	**Fairly difficult to read**	**10**	**Grade10**
Mean	**72.4**	**Fairly easy to read**	**6.6**	**Grade 6 -7**

Table 5: Percentages of the Analysis of the 22 Reading Texts based on Flesch Reading Ease Scale

Reading Ease Score	Description	Predicted Reading Grade	
0-30	Very difficult	College grade	00
30-40	Difficult	College grade	00
50-60	Fairly difficult	10th-12th grade	9%
60-70	Standard	8th-9th grade	36%
70-80	Fairly easy	7th grade	23%
80-90	Easy	6th grade	23%
90-100	Very easy	5th grade	9%

As shown in Table (4), almost all reading texts in the EST Senior Secondary School were below grade level. The mean score of overall text readability in terms of reading ease was 72.4 (fairly easy to read), while the mean level of the reading texts in terms of grade level was 6.6 (grade level 6-7). According to the Flesch Reading Ease score, reading texts at the university level are in the difficult category (30–40); therefore, for EST 3rd grade students to be able to comprehend authentic English texts in content-based areas at the university level, they need to be trained to process fairly difficult reading texts with a reading ease score of between 50–60 at the secondary level. Nevertheless, as shown in Table (5), only two passages, accounting for 9 percent of the overall texts, were designed with a fairly difficult level at 46.6 and 52.4 for grades 10 and 11. Moreover, other texts ranged from very easy to standard.

4.3 Length of Reading Texts

The results of analyzing the length of the reading texts are presented below in Table 5. In terms of the two genres of reading texts in the Yemeni Secondary School Textbook, the findings show that there is no significant difference between the mean length of narrative texts and expository texts. The mean length of narrative texts was 324 words, while that of expository texts was 316. Neither the mean length of the expository texts nor that of the narrative texts conformed to the grade level suggested in Leslie and Caldwell's Qualitative Reading Inventory 3 and 4, except for one narrative text, which

recorded 517 words. However, it was very easy in terms of the readability level, while the other 21 passages were far below the grade level, with the longest text having 416 words.

Table 6: Length of Reading Texts in EST Senior Secondary School Textbook

No	Narrative texts	Length (In Words)	No.	Expository texts	Length (In Words)
1	A Drive in the Country side	325	1	Agriculture in Yemen	323
2	A View from the Window	259	2	Frozen Peas	217
3	Today's News: In the Daily Post Today	237	3	Acids and alkalis	307
4	Hurricane Hits Central America. Thousands Dead	258	4	State of Matter	293
5	Thinking about the Future	390	5	Light	274
6	Applying for a Job	335	6	Sound	397
7	Puzzles and Riddles	360	7	Arabic Scientists	391
8	The Mystery of the Mary Celeste	**517**	8	Vaccination	328
9	Emergencies in the News	204	9	Experimental Procedures	252
10	A Long Life in Medicine	354	10	Internal Combustion Engine	207
			11	The Moon	416
			12	Radio Activity	385
	Mean Length	324		Mean Length	316

5. Discussion

At the tertiary level, students are expected to effectively read various sorts of texts, from textbooks, journal articles, web pages, and magazines to newspapers. This is confirmed by Sani, Chik [56], who indicated that "diploma students and undergraduates need to read a lot of academic texts, journals, websites, and magazines regularly, which requires them to use high levels of reading comprehension skills and therefore make reading an effortful activity "(p.34). Thus, paying attention to the construction of text

elements in the EST curriculum is of great importance in order to prepare EST learners well for reading at a tertiary level.

Since the textbook of interest in the current study was designed for EST students, it was expected that the reading texts to be expository, as they would encounter in the relevant content area at the tertiary level. This expectation was based on the consensus of many researchers that reading texts in academic settings are expository texts [41, 42]. Hence, if EST Senior Secondary reading instructional design trains students to process narrative genre texts more than expository, the students will be more proficient in processing the former. This practice will create difficulty for Yemeni students in processing content area texts that they are not regularly trained upon i.e. the expository genre texts. The finding on text types in this study is to some extent, in line with the findings of Sidek [49] who found that the Malaysian Upper Secondary school English language reading curriculum emphasizes the training of narrative reading texts more than expository texts.

Although the EST senior secondary school curriculum contains one section at the back of the textbook for the science reader, containing 10 expository texts, the inclusion of general texts at the beginning of the textbook made the narrative texts 2 fewer than the expository ones in the reading instructional design. In Yemeni settings, reading teachers are not given the flexibility to use texts other than those included in the textbook. The findings show that the EFL curriculum designers in Yemen seemed to be unaware of the primary objective of the EST program, which is to familiarize and prepare students to read and comprehend academic texts at the tertiary level. Restricting English teachers to use the reading texts that are in the EST textbook goes against the notion that the Yemeni EFL curriculum is a communicative-based curriculum. must be used to achieve learning outcomes based on the communicative-based curriculum. Such over-reliance on reading texts in the EST textbook should be discouraged in order to prepare the learners to read academic expository texts successfully. In line with the

Yemeni educational philosophy, which prioritises the needs of the learner in designing the curriculum, EST students need to be sufficiently trained to process information from different structures of expository texts [11, 27, 37, 38].

In terms of the readability level of reading texts in the EST Senior Secondary school curriculum, the findings showed that all the reading texts in the EST textbook were below the grade level in terms of reading ease (100 per cent), while in terms of the grade level, no single reading text reflected the grade level of the Senior Secondary school grade level (level 12). The readability level of texts is one of the textbook features that affect the students' reading comprehension [57, 58]. However, this was not given adequate consideration while developing the EST secondary school reading instructional design. The readability level of EST reading texts in the EST course book was not appropriately addressed – only 2 texts out of 22 were at the borderline of grade-level. However, those 2 texts entitled "Radio Activity" and "Experimental Procedure" did not match the exact level of senior secondary school learners. Rather, they fell into the "fairly difficult category" at levels 10 and 11, respectively.

Nonetheless, the findings showed that all examined EST reading texts conformed to non-grade-level, grade 6 (36.3 percent), grade 7 (18.1 percent), grade 8(18.1 percent), grade 10 (4.5 percent), and grade 11 (4.5 percent). For EST senior secondary school learners to succeed in their academic areas, they need to be prepared to process texts whose difficulty levels are equivalent to those used at the tertiary level. It is obvious that a significant gap exists between the readability level of texts that the students read in Senior Secondary school and the level of difficulty of academic texts used at higher levels. These findings are in line with previous studies that found a clear gap in the complexity level of texts in high school and those at the university level [15, 47, 50]. Such a gap may indicate the reading challenges that the students will be faced with while studying at the university level. As such, this deficiency in the EST textbook

seems to contribute to the reading comprehension difficulties that Yemeni secondary school graduates face at the university level.

Moreover, academic texts require the purposeful and critical reading of a range of lengthy and complex texts [37, 59]. Thus, training students on grade level texts in terms of their length is essential for preparing them for academic reading. However, the findings on text length in this study showed that the majority of reading texts in the EST textbook did not follow the senior secondary school level, while only one text, "The Mystery of the Mary Celeste," conformed to the grade-level. However, it is a narrative text. These findings suggest that the reading instructional design of senior secondary schools was designed without proper planning and consideration for students' needs. It is thus clear that Yemeni EST senior secondary school students are not sufficiently trained to read grade level texts. It thus follows logically that the students be challenged in processing long and complex reading texts at the tertiary level. Past studies suggest that many students register a high level of failure in academic reading due to text misinterpretation (e.g. [15, 27, 46]), which could limit their ability to process grade-level academic texts. [49] reported a similar finding in the Malaysian context, in which the majority of reading texts in the national Malaysian upper secondary school were found to be below grade level.

6. Conclusion and Recommendation

The current study aimed to find out the effectiveness of the Yemeni EST Senior Secondary school curriculum in preparing students for academic reading at the tertiary level. A content analysis approach was used in analyzing the EST Senior Secondary reading instructional design. A total of 22 reading comprehension texts found in the EST senior secondary school textbook were analyzed in terms of text types, readability, and grade level. The findings showed a clear gap between the academic level reading texts and the reading texts at the senior secondary school level. The findings showed that the EST Senior Secondary reading curriculum does not prepare Yemeni learners

for reading in English at the tertiary level in terms of the designed reading comprehension texts. These findings provide evidence to suggest that the Yemeni EST Senior Secondary reading curriculum is one of the possible causes of reading problems faced by Yemeni learners at the tertiary level. This study is the first of its kind that focused on the EST reading curriculum in the Yemeni context for preparing EST Yemeni learners for academic reading at the university level. The findings of the senior secondary reading curriculum analysis can be extended for future research. However, this study only examined the EST reading curriculum at the senior secondary school level in Yemen. Since the secondary school level lasts 3 years, it might be beneficial to analyze reading curriculum for the junior high school reading curriculum (Grade 10 and 11). By examining and revising the EFL reading curriculum at the secondary level, the Yemeni MoE may best prepare its students for academic reading in English at the university level.

Based on the findings of this study, some recommendations are proposed to ensure that the curriculum fully prepares the EST senior secondary school students for successful reading in English in their content-based areas at the tertiary level.

Firstly, Curriculum designers should have a clear understanding of the main objective of the National Secondary Educational Philosophy, which is to prepare Yemeni secondary school students to transit to higher education successfully. Ensuring the accomplishment of the curriculum objectives is vital. According to Obanya (2002), a perfect match must be found between the designed curriculum, the implemented curriculum, and the achieved curriculum.

Secondly, in terms of the types, readability level, and length of texts, it is recommended that in the revised version of the EST Senior Secondary curriculum, the reading texts in the textbook should be selected with great attention. The reading texts in the proposed revised curriculum should be appropriate in terms of the type and grade level of students as well as their readability level and length. Specifically, the selected

reading texts should be expository grade-level passages because students frequently encounter such complex and lengthy texts at the university level [37, 59]. To effectively prepare the learners to be able to process expository texts at the university level, they should first be trained in the organization and structure of such texts at the secondary school level.

   Thirdly, to address the gaps between curriculum goals and outcomes, instructional design in the curriculum should be carefully analyzed and improved such that textbooks are prepared to proper standards. This is because textbooks can help in achieving the aims of the curriculum as they constitute an important element of the educational process. The revisions that are recommended in this study for the EST Senior Secondary reading curriculum could ensure that EST Senior Secondary students become successful readers even when they encounter complex expository texts at the tertiary level. The recommended revisions in the EST Senior Secondary reading curriculum are illustrated in Figure (1).
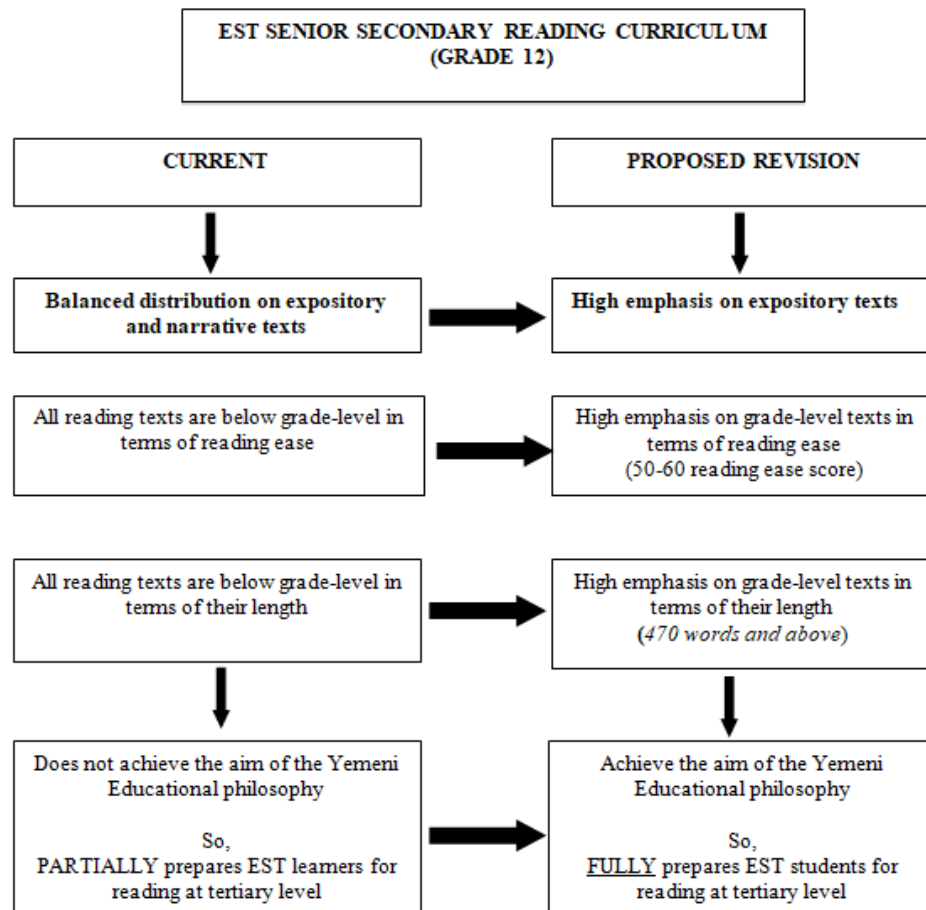
Figure 1: The Proposed Revisions for EST Senior Secondary School Reading Instructional Design

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