Culture and Interculture in Saudi EFL Textbooks: A Corpus-Based Analysis

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This paper combines corpus processing tools to investigate the cultural elements of Saudi education of English as a foreign language (EFL) textbooks. The latest Saudi EFL textbooks (2016 onwards) are available in researchable PDF formats. This helps process them through corpus search software tools. The method adopted is based on analysing 20 cultural topics (nodes), namely climate, clothing, eating, education, family life, geography, history, holidays, humour, language, leisure, meeting people, currency, population, religions, social occasions, sports, transportation and vacations. Function words, verbs, adjectives and punctuation were removed from the files of Saudi EFL textbooks. This guarantees searching for only cultural content words that are associated with the 20 selected cultural topics. The processing of the associations helps identify the type of culture quantitatively: local culture, target culture, and interculture. The results show that local Arabic cultural words are more frequent than target English cultural words, and the latter is more frequent than the intercultural words. This highlights a lack of intercultural examples in the whole corpus of Saudi EFL textbooks. This implies that a reconsideration of intercultural examples is needed for developing English language teaching materials. This is due largely to English being widely used as a lingua franca.

Keywords: Saudi EFL textbooks, cultural content, interculture communicative competence

Introduction

There is a plethora of research tackling the issue of cultural diversity and patterns in language acquisition and language learning. Such studies have focused on the concept of cultural knowledge, as opposed to intercultural knowledge, in teaching or learning a foreign language, and they have discussed the underlying significance of the cultural context and when language usage requires intercultural communication competence (ICC) (e.g., Corbett, 2003; Gudykunst & Kim, 2003; Heath, 1986; Risager, 2008). In this vein, according to a study carried out by Chinh (2013), several key points need to be considered in EFL curriculum design and textbook design, where the English language is widely employed as a central medium of communication or as a lingua franca. English learning, hence, is at the forefront and has gained more visibility among learners from various cultural backgrounds and ethnic groups covering all areas of social, cultural, and political life.

Global studies have considered ICC for English, which Corbett (2003) defined as an approach to train learners to become diplomatic in the differentiation of cultural diversity “from a formal and educational perspective of informed understanding” (p. 2). This implies that the cultural content of English textbooks integrated into the ICC curriculum should not be limited to cultural paradigms of the target language only, but rather that the content should also accept cultural diversity. Baker (2012) further highlights the importance of overcoming the underlying complexities and intricacies of diversity within the cultural context.
patterns of English, particularly with British and American cultures, as that the purpose of learning intercultural competence is to gain insight into an understanding of several cultural contexts from a wider variety of countries with a core focus on cultivating and fostering English language learners’ ICC. A recent analysis of published Saudi EFL undergraduate textbooks was conducted by Aldera (2017). This study analysed the objective of contents in terms of reading, writing, listening, and speaking. However, this study only categorised the title of each textbook into five cultural contents: target culture, Middle East culture, Saudi culture, International Culture, culture free, but without paying attention to the lexical/textual details inside each textbook. It seems that such a study has required a lot of effort due to being reliant on manual coding. Surprisingly, Aldera showed that those Saudi EFL textbooks are disappointingly neglecting the local culture of Arabs in English. However, reports on policies and practices for teaching sociocultural diversity (Arnesen, Birzea, Dumont, Essomba, Furch, Vallianatos, & Ferrer, 2008), developed by the Secretariat and Bureau of the Steering Committee for Education and which have been adopted since 2005, have prompted me to consider how far cultural variations reflected in words are aligned with the teaching of cultural diversity in the textbooks. This report was politically motivated to serve as a basis for the protection of cultural and intercultural variations, as diversity is no longer distinct from the protection of human rights.

English is an important language at the centre of international and global culture, and with an increasing recognition of biculturalism globally, English has become recognised as the global lingua franca among learners from different ethnic groups and various identities. With this in mind, the purpose of the present paper is not only to present examples of Arabic (local), English (target), and intercultural language (pertaining to the ability to communicate between people of different cultures or national origins in English) in English textbooks in Saudi schools, but also to provide a quantitative analysis of these culture types. The two main questions raised in this study are as follows: to what extent is the use of intercultural words and target cultural words fostered compared with local cultural words in all Saudi EFL textbooks and to what degree are these words distributed throughout Saudi EFL textbooks? The analysis will focus on Saudi EFL textbooks, which span from the fourth grade of elementary school up to the third grade of secondary school in the Saudi educational system.

**Culture Versus Interculture**

Teaching culture through language has been referred to as an essential element of language acquisition. There are a wide range of theories on teaching a language as a second language or teaching a language as a foreign language in culturally diverse textbooks. Moreover, several models have sought to develop a conceptual framework for cultural teaching and learning (Brooks, 1975; Nostrand, 1974).

Paige, Jorstad, Siaya, Klein, and Colby (2003) offer an exhaustive overview of the theoretical and empirical research pertaining to learning culture, together with the role of culture in foreign language teaching. Combined with an emphasis on key research conducted during the last decade of the twentieth century (e.g., Bragaw, 1991; Grittner, 1990; Moore 1991), the current study makes reference to how the objectives of learning culture in the English language can be fulfilled in order to attain social, linguistic, and communicative competence in interactional settings. In addition, a team of experts in intercultural studies at the Centre for Advanced Research on Language Acquisition, with the support of the Department of Education at the University of Minnesota, began work on the Intercultural Studies Project aimed at funding conferences and research regarding fostering the teaching of culture (see Paige, Jorstad, Siaya, Klein, & Colby, 2003). It is relevant to note the proposed model of the background studies pertaining to culture learning in language acquisition, in the sense that culture is seen as a dynamic and variable entity involving an intricate, is a highly structured set of complex behaviours by the communities of the native language to be acquired. Furthermore, it is difficult to set forth a strict theoretical framework for the meanings of culture-bound words which can mean different things in different cultures and human interactions. However, such theoretical frameworks can achieve good results for learners’ acquisition of
foreign language cultural patterns while teaching culture. Teaching a language as a foreign language and the design of cultural content in language teaching materials can be very helpful in attaining intercultural competence and in avoiding restrictions on intercultural communication (Robinson-Stuart & Nocon, 1996). The “conceptual model” proposed by Paige et al. (2003) suggests that differences need to be distinguished between what is generally referred to as “the culture-specific versus the culture-general domains of learning” (p. 178). Culture-specific domains are indicated by ‘target culture’, i.e. small communities in a language group. Culture-general domains refer to what is more generalisable and transmittable across cultures. These two domains can also differ in terms of attitudes, behaviour, and knowledge (Bloom, 1964; Damen, 1987; Poppi, 2017).

Qu (2010) developed a milestone framework on teaching culture through several devices such as dialogues, mini-dramas, role-playing, dances, songs, pictures, films, bulletin boards, and engaging in conversations with native speakers. Qu highlights some key points pertaining to the significance of cultural diversity in language teaching. The primary purpose of learning a language is to engage in conversations and interactions with native speakers. Consequently, cultural acquisition of the culture of that foreign language makes learners aware of the patterns covering behavioural and social culture that satisfy the generally recognised psychological and physical needs within the community of native speakers. These needs stress the importance of cultural awareness of the learned language. Culture and language are absolutely inseparable, and culture is an indispensable principal factor, as also suggested by Shemshadsara (2012), for teachers preparing their learners for intercultural communication through the learned foreign language. Moreover, language is not only limited to the use of words as per their lexical and contextual meanings, but also in how words are understood by native speakers. Understanding the culture on its own is not sufficient either. Intercultural communication should not be limited to just knowing about another culture, as it is helpful to learn about how to understand the world through the culture of the learned language (Liddicoat, 2002). Thus, the understanding of a cultural context is different from the understanding of a cross-cultural context. This fully applies to the English language as the lingua franca (e.g., see Chinh, 2013; Holliday, 2009; Holmes & Dervin, 2016; Poppi, 2017).

As far as the computerised quantitative analysis of the application of ICC in the Saudi EFL textbooks in public schools is concerned, this analysis will focus on the interpretation of quantitative results in terms of the core set of linguistic items related to local culture, the items relating to the target language (i.e., English), and the lexical items pertaining to the intercultural framework and concepts. Local culture, in this context, refers to the lexical items which involve cultural and contextual meaning of the local culture of the Islamic, Arabic, and Saudi cultures as indicated in English textbooks, methods, and questions at all educational levels. The analysis will also cover the quantity of the universal lexical items of English language cultures, since the English language is considered a universal language. The techniques of identifying a good analysis of the processed Saudi EFL textbooks are applied by singling out the nodes, n, whose slots are filled in with the individual cultural topics. The distributions and associations of the words collocated with the node will be spelled out by each cultural topic.

**Processing Tools, Data, and Methods**

The stand-alone corpus processing tools found in the literature and applications of corpus linguistics are as follows: Sketch Engine (Kilgarriff, 2014; Kilgarriff, Rychly, Smrz, & Tugwell, 2004), aConCorde (Roberts, 2014), AntConCord (Anthony, 2014), WordSmith Tools (Scott, 2012), and IntelliText Corpus Queries (Sharoff, 2014). All these tools are open corpus search software tools, except for Sketch Engine and IntelliText, which are web-based corpus sources. Having the capability to process English texts gives these tools a better chance to be utilised by researchers worldwide on the one hand, and to be used in corpus linguistic approaches to English on the other. The functions of the stand-alone computer software tools help the researcher to conduct corpus-based studies by uploading multiple folders containing text files. The following criteria were used to select two of these tools for the purpose of analysing cultural
diversity in the Saudi textbooks of EFL teaching, namely AntConc and WordSmith Tools. The reasons for choosing them are as follows:

1) the frequency and relative frequency of types/tokens and documents in the selected folders
2) support of .TXT format and ANSI or UTF-8 encoding
3) statistical corpus linguistics that test the strengths/weaknesses of collocations and associations between the node and its extended n-grams, in addition to the ability to test the null hypothesis, relative frequencies, and type-token ratios.
4) the accuracy of retrieving the n-grams of the node (the focal word intended to be analysed) precisely, as it shows randomly the extent of the n-grams (from 5n-grams) on either side of the node. This varying n-grams’ span guarantees the detection of the experimental analysis (the extent to which local, target, and intercultures are distributed)

This paper uses the following statistics to sketch and examine the collocates of the cultural topics (the nodes): the 5n-gram span before and after the selected nodes and its stat column that shows the mutual information (MI) score in AntConc. The MI simply shows the significance and insignificance of the collocates associated with the selected nodes. Other statistics such as type-token ratios and standard deviations can be calculated via WordSmith Tools. However, the discussions on the natural texts of selected cultural topics and their collocates is focal. These discussions will illustrate the use of local, target, and intercultures of English further, and they will show the degree to which local, target, and intercultures are being fostered. The rationale behind adopting this quantitative research method is twofold: one, it is not easy to manually detect all local, target, and intercultural collocates associated with the 20 cultural topics; and two, the collocation window of the tools used can identify all the collocates in the Saudi EFL textbooks to be analysed.

The Saudi EFL textbooks were published between 2016 and 2017. These series are the most up-to-date EFL textbooks designed and distributed to schools for grade 4 to grade 12. As detailed in Appendices A, B, and C, they consist of multitask books for each particular grade. There are 15 EFL textbooks designed for elementary schools (see Appendix A). These books fall into three categories. The first category is named Smart Class, and it is aimed at completing exercises, while the second and third categories, i.e. Get Ready and We Can, are full of listening and reading tasks, but the longest sentence in these three categories is no longer than four words. In Appendix B, there are 12 books for intermediate school, which contain numerous exercises and grammatical items and longer sentences (i.e., the Full Blast and Life Off series). Appendix C shows the categories for high school.

Regarding the statistics of the three files, each file encompasses one of the three consecutive school levels (i.e., elementary, intermediate, and high school), the overall tokens (the number of words) in each are almost five times as large as the previous level. What matters here is the type-token ratios, which gives a similar value among the three levels of 3.47, 2.60, and 2.71, respectively. This means that the ratios in each have less variety between type and token. Investigating the cultural topics and their relevance to either local, target, or intercultures requires careful techniques. The three files of the EFL textbooks that represent the three Saudi school levels are processed by two English corpus processing tools and are analysed according to 20 selected cultural topics (Section 4). Using a multi-approach method of analysis, 20 particular cultural topics (nodes) were identified in the processed Saudi EFL textbooks by singling out whose slots are filled in with the individual cultural topics. The distributions and associations of the content words, apart from verbs, adjectives, adverbs, and function words, are collocated with the node spelled out by each cultural topic, and then are tested for the source culture (Arabic, as the target students for the processed Saudi EFL textbooks are designed for Arab students in the governmental schools in Saudi Arabia), the target culture (English and its target culture of native English-speaking countries), and the intercultures, which will be checked by corpus processing tools. Hence, the method proposed to detect the extent to which the three types of culture (local Arabic culture, English culture, or interculture) are fostered in the Saudi EFL textbooks is that the collocates associated
with the selected 20 cultural topics (the nodes) are the key to identify which cultural type in particular is detected computationally. This is conducted by specific techniques that help detect such collocates.

**Techniques and Findings**

What cultural topics should be considered for analysis in this article? The literature on language acquisition usually pays attention to psychological and conceptual modes and profiles. Cultural diversity is complicated and cannot be tackled easily as it is immersed in a mishmash of ethnicities, linguistic communities, anecdotes, metacontexts, and so on. Such a complication redirects me to consider particular cultural topics (Cakir, 2006). These topics are as follows: climate, clothing, eating, education, family life, geography, history, holidays, humour, language, leisure, meeting people, currency, pets, population, religions, social occasions, sports, transportation, and vacations. Their frequencies, after I analysed the three files of the three Saudi EFL textbooks’ levels as nodes (n), are given in Table 1 below.

The functions of detecting the collocates (culture type’s identifiers CTIs) of the selected cultural topics (the nodes n) in the textbooks and of the associations that show the type of culture (local, target or inter) are explained next. Collocations of co-occurrences and the ability to sort out lists that show the frequencies and distributions in a 5n-grams concordancing span are essential (Shimohata and Nagata, 1997).

**TABLE 1**

*The Results for Selected Cultural Topics in Saudi EFL Textbooks for Three School Levels*

| Cultural Topics   | Elementary schools | Intermediate schools | High schools |
|-------------------|--------------------|----------------------|--------------|
| Climate           | *                  | n = 80               | n = 58       |
| Clothes           | n = 45             | n = 196              | n = 55       |
| Eating            | n = 26             | n = 172              | n = 158      |
| Education         | n = 5              | n = 42               | n = 161      |
| Family life       | n = 130            | n = 243              | n = 522      |
| Geography         | n = 31             | n = 59               | n = 25       |
| History           | n = 5              | n = 91               | n = 254      |
| Holidays          | n = 58             | n = 349              | n = 432      |
| Humour            | *                  | n = 7                | n = 7        |
| Language          | n = 20             | n = 225              | n = 572      |
| Leisure           | *                  | *                    | n = 56       |
| Meeting people    | *                  | n = 45               | n = 180      |
| Money (Currency)  | *                  | n = 218              | n = 973      |
| Pets              | *                  | n = 66               | n = 18       |
| Population        | *                  | n = 58               | n = 66       |
| Religions         | *                  | n = 19 & Islam n = 23| n = 5 & Islam n = 16 |
| Social occasions  | *                  | n = 6                | n = 23       |
| Sports            | n = 71             | n = 222              | n = 397      |
| Transportation    | *                  | n = 1                | n = 33       |
| Vacations         | *                  | *                    | n = 62       |

Regarding the techniques that I processed in detail, there are four main technical steps to process the type of culture in the Saudi EFL textbooks of the three school levels, each of which is relevant to one school level. The techniques adopted in retrieving the relevant collocates (CTIs) with the selected cultural topics (the nodes) are as follows:

1) Each file containing the whole text of one of the three Saudi EFL textbooks’ levels was processed separately in AntConc. I have used the function of the stop list including English function words (prepositions, conjunctions, particles, etc.) to obtain results for only content words associated with selected cultural topics (nodes) in a span of 5n-grams. In addition, verbs, adjectives, and adverbs were excluded from the results.
2) After processing the first text file of the Saudi EFL textbooks at the elementary school level, AntConc searched for 20 selected cultural topics; the span selected was 5n-grams. The result showed that only 9 cultural topics (n) occurred. The CTIs associated with those nine cultural topics are labelled as collocates in Table 2.

3) After processing the second text file for the Saudi EFL textbooks at the intermediate school level, AntConc searched for 20 selected cultural topics; the span selected was 5n-grams. The result showed that only 16 cultural topics (n) occurred. The CTIs associated with those 16 cultural topics are labelled as collocates in Table 3.

4) After processing the third text file of the Saudi EFL textbooks of high school level, AntConc searched for 20 selected cultural topics; the span selected was 5n-grams. The result showed that all the cultural topics (n) occurred. The CTIs associated with those 20 cultural topics are labelled as collocates in Table 4.

The statistical measure of MI between the cultural topics (nodes) and the collocates (the words that define the type of culture) refer to the degree of statistical significance. MI scores that are higher indicate a stronger association in the whole text file. Scores (probabilities) that are lower than three have no statistical significance (Church & Hanks, 1989; Fano, 1961, pp. 46–57; Oakes, 1998, pp. 63–65). If the probability of observing the node and the collocate occurring dependently, and that of both occurring independently, are less than three, the association between them, the node and the collocate, becomes weak. The strong association and weak association between the cultural topics (the nodes) and their collocates should be provided. This, at least, guarantees the detection of the whole scenario of the strong/weak associations between the local, target, and intercultural collocates and the nodes, and to abide by the criteria of statistical corpus linguistics for representing the strong/weak associations. Each collocate (CTI) has been labelled with its own type of culture: (L) to indicate the Arabic local culture, (T) for the English target culture and (I) for interculture. The number of the associated collocates (CTIs) and their co-occurrences with the node (co-) are also given in Tables 2, 3, and 4, in addition to the number of co-occurrences (co-) and MI.

**TABLE 2**
The Collocates of the Analysed Cultural Topics (L, T and I) and their Co-Occurrences in the Elementary Schools’ EFL Textbooks

| Text file (node) | Collocates | CTIs: co-occurrences | MI          |
|-----------------|------------|----------------------|-------------|
| clothing.txt   | chants_(I)/ UK_(T)/ mosque_(L)/ Saudi_(L)/ Sahar_(L)/ Islamic_(L)/ Helen_(T)/ beach_(I) | 8: 15 | 8.06093/ 4.51661/ 4.25358/ 4.10157/ 2.94545/ 2.76325/ 2.43644/ 1.80669 |
| eating.txt     | omelet_(I)/ omelet_(I)/ apples nose_(I)/ burger_(I) | 4: 120 | 5.71670/ 5.71670/ 5.71670/ 5.45367 |
| education.family.txt | Oxford_(T)/ Macmillan_(T)/ Jeddah_(L)/ Omar_(L)/ Dammam_(L)/ Wafa_(L)/ hummus_(L)/ Fatima_(L)/ Mohammed_(L)/ Ali_(L)/ Saud_(L)/ Sami_(L)/ Afaf_(L)/ Jeddah_(L)/ Saud_(L)/ English_(T)/ Helen_(T)/ Sarah_(L)/ Arabia_(L)/ Riyadh_(L) | 3: 8 | 12.99504/ 10.92465/ 7.70964 |
| geography.history.txt | Islamic_(L)/ England_(T)/ English_(T)/ Islamic_(L) | 2: 16 | 7.44582/ 4.33411 |
| holiday.txt    | Oman_(L)/ Kuwait_(L)/ Abhā_(L)/ Bahrain_(L)/ Emirates_(L)/ Jordan_(L)/ Saud_(L)/ Dubai_(L) | 8: 13 | 10.28933/ 10.28933/ 10.28933/ 5.76577/ 4.74501/ 4.70437 |
| language.txt   | English_(T)/ scuba_(I)/ hang_(I)/ basketball_(I)/ golf_(I)/ tennis_(I)/ volleyball_(I)/ football_(I)/ skateboard_(I)/ ski_(I)/ climbing_(I)/ swimming_(I)/ match_(I) | 1: 7 | 9.05644 |
| sports.txt     | 12: 102 | 9.10196/ 9.10196/ 8.78880/ 8.68692/ 7.91433/ 7.51700/ 7.10196/ 6.78003/ 6.51700/ 6.43899/ 5.98648/ 4.028775 |
| Text file (node) | Collocates | CTIs: co-occurrences | MI |
|-----------------|------------|----------------------|----|
| climate.txt     | London_(T)/ international_(I)/ hotter_(I)/ Britain_(T)/ Arabia_(L)/ America_(T)/ floods_(I)/ droughts_(I) | 8: 17 | 4.43296/ 4.43296/ 4.43296/ 4.43296/ |
|                 |            |                      | 4.43296/ 4.43296/ 2.84800/ 2.84800 |
| clothing.txt    | Wendy_(T)/ Tracey_(T)/ Tie_(I)/ Tieded_(I)/ Tatra_(I)/ Tala_(I)/ scarf_(I)/ Muslim_(L)/ megs_(I)/ kimonos_(I)/ Jeff_(T)/ Jamie_(T)/ Italian_(I)/ Islamic_(L)/ ihram_(L) | 15: 21 | 5.33642/ 5.33642/ 5.33642/ 5.33642/ |
|                 |            |                      | 5.33642/ 5.33642/ 5.33642/ 5.33642/ |
| eating.txt      | Harry_(T)/ Chinese_(I)/ kabsa_(T)/ dates_(T)/ croissant_(I)/ chopsticks_(I)/ pasta_(I)/ falafel_(T) | 8: 14 | 5.62936/ 5.04439/ 4.04439/ 4.04439/ |
|                 |            |                      | 4.04439/ 4.04439/ 3.04439/ 3.04439/ |
| education.txt   | Crinan_(T)/ French_(I) | 2: 8 | 9.62473/ 8.40233 |
| family.txt      | Omar_(L)/ Yasser_(L)/ London_(T)/ Faisal_(L)/ Reemas_(L)/ Italy_(I)/ Sami_(L)/ Australia_(T)/ Hassam_(L)/ England_(T)/ Saudi_(L)/ English_(T)/ Jason_(T)/ James_(T)/ Jameela_(L)/ Ibrahim_(L)/ Alasiri_(L) | 17: 32 | 6.93255/ 6.73990/ 5.83301/ 4.83301/ |
|                 |            |                      | 4.65244/ 4.41797/ 2.78571/ 2.65244/ |
| geography.txt   | Egypt_(T)/ England_(T)/ French_(I)/ Riyadh_(L)/ Kuwait_(L)/ Arabia_(L) | 6: 14 | 7.10221/ 7.10221/ 6.45013/ 6.45013/ |
|                 |            |                      | 6.10221/ 6.10221/ 5.29485 |
| history.txt     | Italian_(I)/ Steve_(T)/ Lisa_(T)/ Linda_(T)/ Lewis_(T)/ Italy_(I)/ Islam_(L)/ Saud_(I)/ English_(T)/ Jason_(T)/ James_(T)/ Jameela_(L)/ Ibrahim_(L)/ Alasiri_(L) | 11: 19 | 4.79961/ 4.79961/ 4.79961/ 4.79961/ |
|                 |            |                      | 4.79961/ 4.79961/ 4.79961/ 4.79961/ |
| holiday.txt     | Tsunami_(I)/ Moscow_(I)/ Mexico_(I)/ Jeddah_(L)/ Egypt_(L)/ French_(I) | 6: 6 | 5.87367/ 5.87367/ 5.87367/ 3.06631/ |
|                 |            |                      | 4.68850/ 4.63405/ 4.63405/ 4.63405/ |
| language.txt    | International_(I)/ Islamic_(L)/ British_(T)/ Brazil_(L)/ English_(T)/ Arabic_(L) | 6: 68 | 3.88559/ 3.84536 |
| meeting.txt     | Egyptian_(L) | 1: 1 | 3.87242 |
| money.txt       | Coin_(I)/ Zakat_(L)/ Riyal_(L)/ Pound_(T)/ Pence_(T)/ Euro_(I)/ Peru_(I)/ Penny_(T) | 8: 14 | 6.00360/ 5.00360/ 5.00360/ 5.00360/ |
|                 |            |                      | 5.00360/ 5.00360/ 4.41863/ 4.41863 |
| occasion.txt    | date_(I)/ camel_(L) | 2: 2 | 4.87213/ 7.87231 |
| pet.txt         | Fays_(I)/ rite_(I)/ fish_(I)/ spider_(I)/ snake_(I)/ goldfish_(I) | 6: 29 | 7.78218/ 7.51914/ 7.36714/ 6.78218/ |
|                 |            |                      | 5.78218/ 5.78218 |
| population.txt  | York_(T)/ Washington_(T)/ Riyadh_(L)/ Ottawa_(T)/ Muslim_(L)/ Egypt_(L)/ nomadic_(I)/ international_(I)/ Arabic_(L)/ Saudi_(L) | 10: 13 | 7.38890/ 7.38890/ 7.38890/ 7.38890/ |
|                 |            |                      | 7.38890/ 7.38890/ 5.80394/ 5.80394/ |
| religion.txt    | Mosque_(L)/ Friday_(L)/ Muslims_(L) | 3: 6 | 5.45066/ 4.45066/ 4.28074 |
| sports.txt      | Safaris_(I)/ rock_(I)/ rob_(I)/ rite_(I)/ riding_(I)/ Ramla_(I)/ karate_(I)/ jumping_(I)/ jogging_(I)/ Nasir_(L)/ Olympic_(I)/ tennis_(I)/ gymnastics_(I)/ swimming_(I)/ surfing_(I)/ rink_(I)/ ride_(I)/ race_(I) | 18: 38 | 4.59402/ 4.59402/ 4.59402/ 4.59402/ |
|                 |            |                      | 4.59402/ 4.59402/ 4.59402/ 4.59402/ |
|                 |            |                      | 4.59402/ 3.59402/ 3.42409/ 3.37162/ |
|                 |            |                      | 3.37162/ 3.00905/ 3.00905/ 3.00905/ |
|                 |            |                      | 3.00905/ 3.00905 |
TABLE 4
The Collocates of the Analysed Cultural Topics (L, T and I) and their Co-Occurrences in the High Schools’ EFL Textbooks

| Text file (node) | Collocates | CTIs: co-occurrences |
|----------------|------------|---------------------|
| climate.txt    | Tuscany_(T)/ Toffler_(T)/ Europe_(I)/ dry_(I)/ desert_(I)/ Britain_(T) | 6: 6 4.73903/ 4.73903/ 4.73903/ 4.73903/ |
| clothing.txt   | Egan_(T)/ Ortega_(I) | 2: 3 8.86186/ 5.05451 |
| eating.txt     | Chinese_(L) | 1: 9 5.57577 |
| education.txt  | Religion_(L)/ London_(T)/ local_(L)/ French_(I)/ Islamic_(L)/ Arabic_(L) | 7: 13 4.53507/ 4.53507/ 4.53507/ 4.53507/ |
| family.txt     | Jeffrey_(T)/ Jacobs_(T)/ Jackson_(T)/ European_(I)/ England_(T)/ Egypt_(L)/ London_(T)/ local_(L)/ Riyadh_(L)/ Makkah_(L) | 10: 17 4.71765/ 4.71765/ 4.71765/ 3.13269/ |
| geography.txt  | Islamic_(L)/ English_(T) | 2: 4 4.57087/ 4.57087 |
| history.txt    | Religions_(L)/ religion_(L)/ Jordanian_(L)/ Islamic_(L)/ Indians_(I)/ Indian_(I)/ Hammurabis_(I)/ Roscholt_(T)/ Americans_(T)/ American_(T)/ England_(T)/ China_(L)/ Australia_(T)/ Abhor_(L)/ English_(T)/ Saudi_(L) | 13: 54 4.79494/ 4.79494/ 4.79494/ 4.79494/ |
| holiday.txt    | Skiing_(I)/ Spanish_(I)/ Sheikh_(L)/ Sharm_(L)/ Mexico_(I)/ Mexico_(I)/ Cuban_(L)/ China_(L)/ Australia_(T)/ España_(I)/ China_(I)/ Australia_(T)/ Abhor_(L)/ English_(T)/ Saudi_(L) | 21: 48 5.53898/ 4.60609/ 4.60609/ 4.60609/ |
| humour.txt     | Grey_(T)/ doughnut_(T) | 2: 5 4.59991/ 4.59991 |
| language.txt   | Morocco_(L)/ Egypt_(L)/ Venezuela_(I)/ Russian_(I)/ Germany_(I)/ British_(I)/ Saudi_(L) | 7: 16 4.91558/ 4.91558/ 3.59365/ 3.271715 |
| leisure.txt    | Watersports_(I)/ warmup_(I) | 2: 2 4.83245/ 4.83245 |
| meeting.txt    | Manchester_(T)/ Trevor_(T) | 4: 5 5.78200/ 4.78200/ 2.78200 |
| money.txt      | Cowrie_(I)/ Trophies_(I)/ Tonic_(I)/ rited_(I)/ Costa Rica_(I)/ Ramirez_(I)/ Rafael_(I)/ Orleans_(T)/ Mexico_(I)/ English_(T)/ Manhattan_(T) | 11: 16 5.47707/ 5.47707/ 5.47707/ 3.89210/ 2.30714/ 2.15514 |
| occasion.txt   | Mosque_(L)/ English_(T)/ Eid_(L) | 3: 4 4.78572/ 4.78572/ 4.78572 |
| pet.txt        | Roger_(T)/ Koko_(T) | 2: 2 4.42279/ 4.42279 |
| population.txt | Terrorism_(I)/ terrain_(T)/ Morocco_(L)/ Egypt_(L)/ Asians_(I)/ Australian_(T)/ Saudi_(L)/ Arabia_(L) | 8: 17 4.66114/ 4.66114/ 4.66114/ 4.66114/ |
| religion.txt   | Islamic_(L) | 1: 4 5.83920 |
| sports.txt     | Japanese_(I)/ Canadian_(T)/ snowboarding_(T)/ hockey_(T)/ racket_(T)/ Godo_(T)/ paragliding_(T)/ golf_(I)/ skiing_(I)/ scuba_(I) | 10: 22 4.54399/ 4.54399/ 3.54399/ 3.54399/ 3.54399/ 3.54399/ 3.54399/ |
| transportation.txt | Jackson_(T) | 1: 2 5.69735 |
| vacation.txt   | Zebra_(I)/ Vegas_(T)/ Greece_(I)/ China_(I)/ Australia_(T)/ Dubai_(L) | 6: 8 4.73442/ 4.73442/ 4.73442/ 4.73442/ 4.73442/ 4.31939 |

Discussion

The process of sorting-in and throwing-out, as illustrated in Figure 1 below, was undertaken to show the n (cultural topic)+collocates (CTIs). A large number of n+collocates, irrelevant to the three types of cultural topics (L, T and I), were included in the analysis.
cultures were dismissed due to being function words (e.g., the, in, out, to, by, of, etc.) or being verbs, adjectives, or adverbs (see Table 5 below). The relevant n+collocates were divided by percentage into the types of cultures. The results of the relevant and irrelevant n+collocates, in addition to the three types of cultures, are illustrated in Figure 2 below. The number of collocates associated with the selected cultural topics (the nodes) is 304. The distributions of all collocates associated with the 20 nodes between the three types of culture will be explained next in detail to conclude how these types are represented in Saudi EFL textbooks.

![Figure 1. The relevant and irrelevant local, target, and intercultures conveyed by the n+collocates in numbers.](image)

| TABLE 5 | Frequencies (Size in Numbers) of the Totality in all Selected Saudi EFL Textbooks |
|---------|-------------------------------------|
| Frequency cases | | | |
| No. of selected cultural topics (n) | 9 | 16 | 20 |
| No. of collocates (CTIs) | 57 | 127 | 119 |
| No. of local culture items (n+collocates) | 87 | 76 | 70 |
| No. of target culture items (n+collocates) | 22 | 95 | 88 |
| No. of interculture items (n+collocates) | 228 | 131 | 99 |
| No. of relevant n+collocates | 337 | 302 | 257 |
| No. of irrelevant n+collocates | 338 | 400 | 5706 |
| Ratios of (relevant: irrelevant) n+collocates | (0.997:0.003) | (0.755:0.245) | (0.045:0.955) |
Figure 2. The total number of 20n+collocates (X-axis) in numbers (Y-axis).

The types of culture that are analysed from the Saudi EFL textbooks vary in terms of size. The number of relevant collocates (Table 5) that are associated with the 20 topics at the three school levels according to the three types of culture are as follows:

1) For the elementary school level, 30 collocates convey local cultures, 10 collocates convey target culture, and 17 collocates refer to interculture. This makes up 57 collocates associated with only 9 cultural topics. However, the frequencies of each collocate change the state of size effect, as the total frequency, as seen in Table 5, is 337 (87 n+collocates for local culture, 22 n+collocates for target culture and 228 n+collocates for interculture).

2) For the intermediate school level, 50 collocates convey local cultures, 31 collocates convey target culture, and 47 collocates refer to interculture. This makes up 127 collocates associated with only 16 cultural topics. However, the frequencies of each collocate change the state of effect, as the total frequency, as depicted in Table 5, is 302 (76 n+collocates for local culture, 95 n+collocates for target culture and 131 n+collocates for interculture).

3) For the high school level, 33 collocates convey local cultures, 39 collocates convey target culture, and 48 collocates refer to interculture. This makes up 119 collocates associated with the 20 cultural topics. However, the frequencies of each collocate change the state of effect, as the total frequency, as seen in Table 5, is 257 (70 n+collocates for local culture, 88 n+collocates for target culture and 99 n+collocates for interculture).

The frequency of each category of culture for the whole data reflecting the three school levels are 233 frequently occurring n+collocates for local culture, 205 frequently occurring n+collocates for target culture, and 458 frequently occurring n+collocates for interculture. However, such totalities when they are compared to the size of the intended textbooks in each school level show that local cultural items are greater in size than those of target cultural items, and that the latter is greater in size than those of intercultures. In other words, the EFL textbooks taught at the elementary level have more frequent n+collocates relevant to local and interculture than the textbooks taught at the intermediate and high levels; and for the latter, the n+collocates relevant to the target cultural items are more frequent than those in the elementary school level. In general, the results, however, show that the three cultures are incorporated more into the first level and they decrease in the next two categories in a gradual and respective way, except for the number of target culture items (n+collocates) at the elementary level.
According to the resulting ratios for each school level (the last row of Table 5), the teaching of English at the three school levels use more local cultural elements than target and intercultural elements, which seems unusual, as the English culture is conveyed by either the target culture or interculture. This can be seen in the ratios of the relevant n+collocates to the irrelevant n+collocates that vary widely between the Saudi school levels.

**Conclusion**

The processing undertaken in this article sought to determine complete examples of English that convey 20 selected cultural topics (n) and their own cultural type detected by collocates (CTIs) in a 5-ngrams span. The analysis was based on processing whole texts of Saudi EFL textbooks. Function words, punctuation, and symbols other than English letters were removed. In addition, verbs, adjectives, and adverbs were not considered. This helped identify how the remaining content words (collocates) were associated with the 20 selected cultural topics/words (nodes). The collocates associated with either side of the node were retrieved and labelled as local (L), target (T), or inter-cultural (I) items. Overall, it was evident that local cultural items were fostered more than the target cultural ones, and that the latter was fostered more than interculture. It is odd to decrease the elements of the target culture by which English is originally conveyed. It seems that raising awareness of local cultures inserted into the English textbooks tends to make students in Saudi Arabia competent regarding how they express their own cultures via the international language, English. This is quite reasonable, but the situational and cultural competence and performance should shift the size of local cultural linguistic items to a minimum. The target culture and interculture, and the cultural items that convey them, are more important for students because acquiring the English language should aim to achieve good communicative competence with native English speakers and with non-native speakers of English via English as a lingua franca among multiple ethnic groups and cultures. It is highly recommended to reconsider the cultural competence of Saudi EFL textbooks in terms of a greater focus on intercultural than target culture, and have more of the target culture than local. Approaches used in translingualism, transculturalism, and transmodality should also be adopted when critiquing or evaluating EFL textbooks in terms of the way in which more intercultural words and phraseologies can be promoted.

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## Appendix A

### EFL Textbooks for Elementary Schools

| Categories      | Grade      | Size in pages | Basic statistics                                |
|-----------------|------------|---------------|-------------------------------------------------|
| Exercise book   |            |               |                                                 |
| Smart Class 1   | 4th grade  | 124           |                                                 |
| Smart Class 2   | 4th grade  | 123           |                                                 |
| Smart Class 3   | 5th grade  | 132           |                                                 |
| Smart Class 4   | 5th grade  | 132           |                                                 |
| Smart Class 5   | 6th grade  | 148           | File size (overall): 1,281,578                  |
| Smart Class 6   | 6th grade  | 140           | Tokens (running words) in text: 120,803         |
| Student book    |            |               |                                                 |
| Get Ready 1     | 4th grade  | 95            | Type/token ratio (TTR): 3.46                    |
| Get Ready 2     | 4th grade  | 94            | Standardised TTR: 27.30                        |
| Get Ready 3     | 5th grade  | 95            | STTR std. dev: 72.81                           |
| Get Ready 4     | 5th grade  | 95            |                                                 |
| Get Ready 5     | 6th grade  | 94            |                                                 |
| Get Ready 6     | 6th grade  | 94            |                                                 |
| We Can! 1       | 4th grade  | 102           |                                                 |
| We Can! 3       | 5th grade  | 102           |                                                 |
| We Can! 5       | 6th grade  | 118           |                                                 |

## Appendix B

### EFL Textbooks for Intermediate Schools

| Categories      | Grade      | Size in pages | Basic statistics                                |
|-----------------|------------|---------------|-------------------------------------------------|
| Work/grammar    |            |               |                                                 |
| Full Blast 1    | 7th grade  | 171           | File size (overall): 4,921,842                   |
| Full Blast 2    | 7th grade  | 171           | Tokens (running words) in text: 453,960          |
| Full Blast 3    | 8th grade  | 180           | Types (distinct words): 11,820                   |
| Full Blast 4    | 8th grade  | 180           |                                                 |
| Full Blast 5    | 9th grade  | 188           |                                                 |
| Full Blast 6    | 9th grade  | 172           |                                                 |
| Student book    |            |               |                                                 |
| Life Off 1      | 7th grade  | 153           | Type/token ratio (TTR): 2.60                     |
| Life Off 2      | 7th grade  | 150           | Standardised TTR: 38.08                         |
| Life Off 3      | 8th grade  | 155           | STTR std. dev: 62.80                            |
| Life Off 4      | 8th grade  | 154           |                                                 |
| Life Off 5      | 9th grade  | 155           |                                                 |
| Life Off 6      | 9th grade  | 155           |                                                 |
## Appendix C

### EFL Textbooks for High Schools

| Categories        | Grade | Size in pages | Basic statistics |
|-------------------|-------|---------------|------------------|
| Traveller 1 SB    | 10th grade | 171         |                   |
| Traveller 1 WB    | 10th grade | 104         |                   |
| Traveller 2 SB    | 10th grade | 144         |                   |
| Traveller 2 WB    | 10th grade | 104         |                   |
| Traveller 3 SB    | 11th grade | 144         |                   |
| Traveller 3 WB    | 11th grade | 88          |                   |
| Traveller 4 SB    | 11th grade | 152         |                   |
| Traveller 4 WB    | 11th grade | 88          |                   |
| Traveller 5 SB    | 12th grade | 128         |                   |
| Traveller 5 WB    | 12th grade | 64          |                   |
| Traveller 6 SB    | 12th grade | 120         |                   |
| Traveller 6 WB    | 12th grade | 56          |                   |
| Flying High 1 SB  | 10th grade | 84          |                   |
| Flying High 1 WB  | 10th grade | 60          |                   |
| Flying High 2 SB  | 10th grade | 84          |                   |
| Flying High 2 WB  | 10th grade | 64          |                   |
| Flying High 3 SB  | 11th grade | 84          |                   |
| Flying High 3 WB  | 11th grade | 60          |                   |
| Flying High 4 SB  | 11th grade | 84          |                   |
| Flying High 4 WB  | 11th grade | 60          |                   |
| Flying High 5 SB  | 12th grade | 84          |                   |
| Flying High 5 WB  | 12th grade | 56          |                   |
| Flying High 6 SB  | 12th grade | 84          |                   |
| Flying High 6 WB  | 12th grade | 56          |                   |
| Mega Goal 1 SB    | 10th grade | 108         |                   |
| Mega Goal 1 WB    | 10th grade | 76          |                   |
| Mega Goal 3 SB    | 11th grade | 108         |                   |
| Mega Goal 3 WB    | 11th grade | 76          |                   |
| Mega Goal 5 SB    | 12th grade | 108         |                   |
| Mega Goal 5 WB    | 12th grade | 76          |                   |

- File size (overall): 10,628,308
- Tokens (running words) in text: 957,974
- Types (distinct words): 25,959
- Type/token ratio (TTR): 2.71
- Standardised TTR: 42.82
- STTR std. dev: 58.50