



Vocabulary Instruction: Textbook Analysis of the Outcomes Series

Iia Vlasova 

Northern Arizona University, USA

iv295@nau.edu

Abstract

Even though textbooks are central to language teaching, linguistic research on how well some commercial textbook series support vocabulary acquisition is not comprehensive. As a result, many instructors lack both practical tools and empirical support regarding the choice of materials appropriate for their students' goals. This study presents a corpus-based analysis of the vocabulary coverage in the Outcomes textbook series, Third Edition, published by National Geographic. Using two vocabulary profiler tools (Compleat Lexical Tutor by Cobb, 1998; AntWordProfiler by Anthony, 2024), in combination with a qualitative analysis of the textbooks, this paper examines lexical coverage, frequency distribution, opportunities for vocabulary recycling, and the inclusion of vocabulary learning strategies across six proficiency levels.

The analysis shows that lower-level books include a larger percentage of high-frequency vocabulary. As students progress through the course, they are expected to encounter a higher number of mid-frequency and low-frequency vocabulary. However, opportunities for vocabulary recycling vary considerably across the textbooks and specific vocabulary items. Even though the book is recommended for IELTS preparation, the findings indicate limited academic vocabulary coverage. This suggests that the textbook series might be more suitable for general English classrooms than for academic or test-focused contexts. Lastly, the series lacks

explicit guidance on vocabulary learning strategies, which may limit learners' ability to independently consolidate lexical knowledge. The study highlights the value of corpus-informed textbook evaluation and offers pedagogically relevant insights for teachers, material developers, and curriculum designers.

Keywords: textbook analysis, corpus linguistics, vocabulary profile, vocabulary instruction, Outcomes textbooks

Introduction

In language teaching, vocabulary knowledge has been considered a key component of language proficiency. Lexical competence is crucial both for effective communication and for acquiring other language skills, as it plays a major role in reading, listening, and grammar acquisition (Nation, 2022; Schmitt et al., 2017). Often, vocabulary development is regarded as a measure of students' progress toward language proficiency (Yu & Renandya, 2014). Therefore, vocabulary instruction is an essential part of any pedagogical material because a well-structured language course should support vocabulary acquisition (Nordlund, 2016). However, making principled choices about what vocabulary should be taught and how the process should be structured can be considered some of the most challenging aspects of teaching and learning (Vadasy & Nelson, 2012).

In many educational contexts, the content of textbooks guides classroom instruction (Benson & Madarbakus-Ring, 2021; Lynn, 2021). Therefore, understanding the content of textbooks can help teachers and curriculum designers to make an informed choice about which resources suit the needs of their students. Previous research (Sogut & Vural, 2023; Yu & Renandya, 2021; Ruegg & Brown, 2014) has shown that many coursebooks are not systematic in their vocabulary selection. Moreover, the analyzed teaching materials did not provide sufficient opportunities for vocabulary recycling. Hence, this study aims to contribute to our knowledge of real-world vocabulary instruction by providing an empirical evaluation of a popular textbook by National Geographic Publishing – Outcomes.

Literature Review

Vocabulary Knowledge and Size

Lexical knowledge is a multifaceted concept, as it encompasses a multitude of components, ranging from word meaning to its form (Dronjic, 2019). To learn a word, language learners need to understand its denotations (literal meaning, often found in a dictionary), connotations (cultural or emotional meaning), appropriateness in specific registers or social situations; they need to know how it relates to other words (i.e., which words can be considered its synonyms and antonyms), what words it tends to co-occur with, and how it fits in the lexical hierarchy (i.e. where it stands in terms of hyponyms and hypernyms). Moreover, a learner should be aware of how the word is pronounced and written, what morphemes it comprises, and what grammatical functions it can serve in a sentence (Dronjic, 2019).

Even though there are various ways to measure vocabulary size, one of the most commonly used approaches involves calculating word families (Dronjic, 2019; Nation, 2022; Schmitt et al., 2015). A word family can be defined as a group of words connected by their meaning and form (e.g. play, player, playing, etc.) (Coxhead, 2000). Each word family contains a headword that represents its family members. For example, the headword *approach* represents the other word forms belonging to the same family: *approachable*, *approached*, *approaches*, *approaching*, and *unapproachable*. On average, an educated native speaker of English is expected to know about 17,000–20,000 word families (Dronjic, 2019; Nation, 2022). Nation and Coxhead (2021) suggest that native speakers' receptive vocabulary usually follows a "rule of thumb" formula: age minus two times 1000 (p.3.). This vocabulary size is out of reach for most language learners; therefore, for pedagogical purposes, it is necessary to consider vocabulary practicality and functionality (Dronjic, 2019). Many studies have shown that not all words are equally important for a language learner, and the most common words of the target language should be taught first (Ruegg & Brown, 2014).

Typically, vocabulary is divided into three major frequency groups: high-frequency, mid-frequency, and low-frequency words (Nation, 2022). The first group of words is responsible for about 80% of most texts and includes many function words. The second group ranges from the third to the ninth 1,000 word families and incorporates largely general-purpose vocabulary. Knowing these two vocabulary groups allows an L2 speaker to communicate efficiently in a wide range of situations without outside support (Nation, 2022; Nation, 2006). While low-frequency words are by far the largest group in English, they only account for a small proportion of running words in any given text. This group includes technical terms and is associated with specialized professional or academic contexts. Since vocabulary knowledge should be functional in a wide range of communicative situations, many language learners need to be familiar with the lexis associated with a wide range of academic contexts. The best-known list of such vocabulary is Coxhead's Academic Word List (AWL), which can be considered "the next band to teach after high-frequency vocabulary" (Schmitt & Schmitt, 2014, p.16). It is important to note that while academic vocabulary is usually regarded as conceptually different from high-frequency vocabulary, 63% of the words on the AWL list come from the 3,000 most frequent words in English (Schmitt & Schmitt, 2014).

Vocabulary Instruction

Many L2 learners do not acquire vocabulary at the same kinds of frequencies as L1 speakers due to insufficient exposure outside of the classroom and the lack of systematicness in classroom teaching (Dronjic, 2019). This raises challenges for L2 instruction. Firstly, an average language learner does not fully master the high-frequency vocabulary (Dronjic, 2019). Secondly, many learners lack sufficient mid-frequency vocabulary as it is not addressed pedagogically in a principled way. Some popular textbooks do not provide sufficient exposure for learning mid-frequency vocabulary and beyond (Schmitt & Schmitt, 2014). Moreover, previous research has demonstrated that many classrooms generally lack sufficient vocabulary instruction (Folse, 2010). Therefore, choosing the right pedagogical materials is important, as strategic vocabulary

instruction should be at the core of an effective language curriculum. Nation (2020) specifies that a teacher's job is to ensure that the learners are exposed to the vocabulary that is relevant to their needs. Additionally, vocabulary learning should be organized in a way that stimulates vocabulary acquisition, and this involves several conditions, such as repetition, noticing, meeting, and using words in a variety of contexts, among others.

A large body of research has shown that explicit instruction is beneficial for vocabulary acquisition (Folse, 2010; Sonbul & Schmitt, 2010; Hennebry et al., 2017). A good language curriculum should provide learners with opportunities for both intentional and incidental learning. Fortunately, focused instruction allows for manipulation of how many times a student will be exposed to a word and under which conditions they will encounter it. Even though existing research does not agree on the exact number of encounters necessary to learn a word, the average number varies between six and ten encounters (Dronjic, 2019; Zhang, 2022). Additionally, there is some evidence that students at lower levels of proficiency might require more encounters with the target vocabulary for significant gains (Zhang, 2022). However, vocabulary recycling alone is not enough for learning to take place. Recycling, or revision, refers to any activity in which learners are meaningfully exposed to a word (Akin & Seferoglu, 2004). To be able to remember and use vocabulary when needed, learners should encounter previously met words in varied contexts and activities (Zapounidis, 2014). Therefore, information about vocabulary recycling in textbooks might help language teachers choose appropriate revision activities to aid in vocabulary learning and retention. Another important consideration for knowledge maintenance is scheduled rehearsal (Hulstijn, 2001; Moody, 1982). This suggests that the learner should be reminded of the new word with increased intervals between exposures (i.e., within minutes, hours, and days from the time they first learned the word).

Recently, many language course designers and educators have incorporated strategy instruction into their programs to improve learner autonomy and stimulate incidental vocabulary learning. Akin & Seferoglu (2004) showed that university students valued explicit vocabulary instruction and found learning strategies particularly useful for developing their lexical knowledge. A vocabulary learning strategy can be defined as any conscious action a learner can take to facilitate vocabulary acquisition (Noprianto & Purnawarman, 2019; Schmitt, 1997). This study relies on O'Malley and Chamot (1990), who identified three types of language learning strategies: metacognitive strategies (planning, monitoring, self-evaluation), cognitive strategies (task performance and handling information, such as repeating or translating), and social-mediating strategies (interaction with teachers or classmates).

Textbooks and Vocabulary

Most contemporary textbooks use the six-level proficiency categories proposed by the Common European Framework of Reference for Languages (CEFR). Although the CEFR does not provide specific word lists relating to the levels, some previous research estimates that 2000 most frequent words constitute a threshold for moving to the intermediate level, and over 4500 words are required to achieve proficiency (Milton, 2010). These estimations deviate from those of Nation (2006), as they suggest that the

mastery of 5,000 word families is sufficient for following “debates, discussions, specialized lectures and presentations that contain a high degree of colloquial expressions, regional usage, or unfamiliar terminology” associated with the C2 proficiency expectations according to CEFR (EQUALS, 2008, p.1). Nevertheless, regardless of the exact number of lexical items associated with the specific levels, it is clear that teaching resources should ensure they provide sufficient exposure and practice opportunities for the first 5,000 word families.

Previous research examining vocabulary coverage and its recurrence in textbooks revealed that many teaching and learning materials do not provide sufficient opportunities for recycling vocabulary. This concept is important because the existing literature emphasizes that “it is crucial that a word be encountered on multiple days” and in varied types of activities (e.g., in listening or reading texts) (Dronjic, 2019, p. 42). Most commercial textbooks achieve 95% coverage with the first 3,000 word families (Benson & Madarbakus-Ring, 2021). However, many educational environments do not provide sufficient instruction for the most frequent vocabulary items (Dronjic, 2019). While most studies agree that the most frequent items should be taught first, followed by the mid-frequency vocabulary, with low-frequency items requiring little classroom focus, often, EFL textbooks do not encourage the study of the most frequent vocabulary (Dronjic, 2019; Lowley, 2010). Moreover, insufficient recurrence of target vocabulary might also affect its acquisition. For example, in their analysis of Chinese English learning textbooks, Yu and Renandya (2021) found that 45% of the target vocabulary occurred less than four times, demonstrating inadequate recurrence of vocabulary. In a similar vein, in their analysis of Swedish textbooks for young learners, Norberg and Nordlund (2018) found that the resources did not provide sufficient recycling of vocabulary items. Additionally, the books included a high proportion of low-frequency words and did not provide balanced exposure to vocabulary across proficiency levels. Several other studies of various textbooks yielded very similar results, indicating potential issues related to instructed vocabulary acquisition across educational contexts (Mukundan & Aziz, 2009; Sogut & Vural, 2023; Lipinski, 2010).

Current Study

Research shows that students benefit from explicit vocabulary instruction, but it is impossible to develop advanced vocabulary from classroom instruction alone (Nation, 2022; Nation, 2020). Therefore, it is advisable that instructional materials provide opportunities for incidental and intentional vocabulary acquisition. Additionally, textbooks should incorporate learning strategies to encourage vocabulary acquisition outside of the classroom. Considering these aspects, this study aims to evaluate how well the Outcomes textbook series facilitates vocabulary acquisition in English learners.

The study aims to answer the following research questions:

1. What is the coverage level of the most frequent words and academic vocabulary rate in the Outcomes coursebooks (Pre-Intermediate and Intermediate levels)?
2. How are the high-, mid-, and low-frequency words distributed across the target vocabulary items in the Outcomes set of books?
3. Do the coursebooks incorporate vocabulary learning strategies?

Methodology

Corpora

The study used teaching and learning materials from the Outcomes, Third Edition textbook series by National Geographic. The book was chosen for its popularity and availability among teachers internationally (Ruegg & Brown, 2014). The series comprises six levels (Beginner to Advanced), which include Student's Books, a digital platform for learners, Teacher's Books, and other online resources (National Geographic Learning, n.d.). Being a general English course, it uses a vocabulary approach and aims to prepare the learners not only for natural everyday conversations, but also for Cambridge and IELTS exams. For practical reasons, only the content of the Student's Books was analyzed in the study. The description of the book content can be found in Appendix 1.

To answer the research questions, three corpora were used: Outcomes Pre-Intermediate textbook, Outcomes Intermediate textbook, and the Target vocabulary across the levels (see Table 1). Only two textbooks were analyzed in relation to the first RQ for practical limitations, since the researcher did not have sufficient funds to purchase the whole series of textbooks in their electronic versions. The two available PDF files were converted to appropriate formats (doc. and txt.) to create the corpora. The Target vocabulary corpus was compiled manually by extracting the lexical items that were highlighted in the Vocabulary sections of the whole textbook series.

Table 1 *Corpora Description*

	Pre-Intermediate	Intermediate	Target Vocabulary
Tokens	105242	125899	9794
Types	3458	6615	2406

Analyses

The first research question asked about the vocabulary coverage of two books in the series (Pre-Intermediate and Intermediate levels). In line with the previous textbook analyses (Lynn, 2021; Norberg & Nordlund, 2018; Sogut & Vural, 2023), the textbooks were analyzed with a vocabulary profiler tool – Compleat Lexical Tutor, which uses word frequency lists to assess instructional materials (Cobb, 1998). Following Lynn (2021), the BNC-COCA 25k and the AWL (Coxhead, 2000) frequency lists were used to measure vocabulary coverage. However, the Compleat Lexical Tutor did not allow for the analysis using the AWL wordlist at the time the current research was conducted; therefore, to assess the academic vocabulary coverage, AntWordProfiler tool was used (Anthony, 2024). While Coxhead's (2000) list is not without criticism, it is still widely used in linguistic research due to its practicality (Lynn, 2021). Both of these analyses were conducted using word families.

To address the second research question, I focused on the Vocabulary sections to see how often and under which conditions lexical items recur in the textbooks.

The decision to analyze target vocabulary separately was made because, typically, both teachers and students pay more attention to the lexical items that the course highlights. Also, the teachers are more likely to target such vocabulary in their lexical instruction and provide additional practice exercises since these lexical items are included in the tests and revision exercises the course provides. Lastly, this allowed for the analysis of target vocabulary across the whole series. The lexis was considered target if it appeared in the sections explicitly dedicated to introducing vocabulary, titled VOCABULARY across the textbooks. To extract all target vocabulary items, I manually went over each of the six textbooks in the series. For example, in Figure 1, the bolded words would be marked as target vocabulary.

Additionally, to provide a more comprehensive analysis of vocabulary recycling across the textbooks, using a Python script, I calculated the moving-average type-token ratio (MATTR) – a similar algorithm to type/token ratio (TTR), which enables the comparison of lexical diversity across textbooks (Norberg & Nordlund, 2018). Because TTR is highly dependent on text length, this study used MATTR – a technique that produces more reliable results. MATTR divides a text into standardized segments and calculates the type/token ratio (TTR) for each of those segments. Then, the mean value of the TTRs is presented, making this method immune to text length (Covington & McFall, 2010). The higher the ratio, or the closer it comes to one, the more diverse the vocabulary a textbook uses. Therefore, TTR might be

VOCABULARY Feelings

1 Match the words in bold in the sentences to these basic meanings: happy, tired, annoyed, bad, sad, angry, worried.

- 1 We left at six in the morning and didn't get back until midnight. I was **exhausted**.
- 2 You must be **delighted** with the results. They're great.
- 3 He says he's not **bothered** by what his boss said, but I can see it's upset him.
- 4 I'm finding work very difficult at the moment. I feel stressed and **tense** all the time.
- 5 His granddad's ill at the moment, so he's upset about that. He was **in tears** when I saw him.
- 6 I'm so sorry. I feel really **guilty** about leaving you with all the work to do.
- 7 Ask her now. She looks like she's **in a good mood**. She might say yes.
- 8 It was good to see her enjoying herself because I know she's been a bit **down** recently.
- 9 I was **pleasantly surprised** by the film. I really didn't expect it to be so good.
- 10 I'm **fed up** with this weather. It's so hot you can't do anything. I just want it to stop.

Figure 1 Example of Target Vocabulary in the Outcomes Intermediate Coursebook, Unit 2A.

indicative of how well words are recycled in general. Considering previous research, English learners would benefit from less diverse texts at the early levels of proficiency because that would allow more opportunities for them to be exposed to the same word families.

To address the third research question, the whole series of textbooks was analyzed to find mentions of vocabulary learning strategies. The study adopted a wide definition of the concept; hence, learning strategies have been defined as any conscious action on a learner's part that affects vocabulary learning. Therefore, the six textbooks were analyzed to find any explicit instructions that draw students' attention to how vocabulary learning can be enhanced.

Results and Discussion

Coverage Level of the Most Frequent Words and the Academic Vocabulary Rate in The A2 and B1 Textbooks

The results of the frequency distribution of vocabulary according to the Compleat Lexical Tutor are presented in Tables 2 and 3. As seen in Table 2, in the A2 textbook, 93% of coverage is achieved with vocabulary coming from the first 3000 frequency bands. The B1 level textbook shows a slightly different distribution of the most frequent vocabulary, with almost 97% of vocabulary items coming from the first 3000 frequency bands. The higher-level textbook includes a larger number of vocabulary items coming from mid-frequency and low-frequency bands: 2373 tokens compared to 1952 in the A2 level.

Table 2 *Lexical Frequency Profile of Outcomes Pre-Intermediate Textbook*

Level	Tokens	%	Cumulative %
k-01	102,378	86.063	86.063
k-02	6,876	5.780	91.843
k-03	1,864	1.567	93.410
k-04	494	0.415	93.825
k-05	698	0.587	94.412
k-06	221	0.186	94.598
k-07	113	0.095	94.693
k-08	126	0.106	94.799
k-09	37	0.031	94.830
10k-25k	263	0.221	95.064
<i>Coverage ⇒ 95% threshold</i>			
k-off	5,420	4.556	99.620
<i>Coverage ⇒ 98% threshold</i>			

Note. The differences in the token numbers can be attributed to the computational differences between the tools used for the analysis.

Table 3 *Lexical Frequency Profile of Outcomes Intermediate Textbook*

Level	Tokens	%	Cumulative %
k-01	117,696	88.029	88.029
k-02	8,845	6.615	94.644
k-03	2,973	2.224	96.868
<i>Coverage $\Rightarrow$ 95%</i>			
k-04	720	0.539	97.407
k-05	746	0.558	97.965
k-06	255	0.191	98.156
<i>Coverage $\Rightarrow$ 98%</i>			
k-07	199	0.149	98.305
k-08	81	0.061	98.366
k-09	60	0.045	98.411
10k+ (k-10 to k-25)	312	0.231	98.642
k-off	1,705	1.275	99.917

In terms of academic vocabulary, the AntWordProfiler identified that less than 2% of individual words in the Pre-Intermediate book belong to the AWL list (2,139 tokens, or 212 headwords). The Intermediate book includes 3,572 academic words, or less than 3% overall. More importantly, it provides coverage of only 307 headwords out of the 570 headwords on the AWL. The target vocabulary corpus contains 238 academic headwords, indicating a focus on more general vocabulary in the textbook. This might mean that a learner who primarily relied on the Outcomes series might not be exposed to sufficient academic vocabulary throughout the course to prepare for study abroad contexts. Since the official website mentions that the series aims to help with IELTS preparation, it may be argued that the AWL values presented in this section can be considered low and require additional resources for students to develop the academic vocabulary knowledge necessary to successfully pass the examination.

Target Vocabulary Frequency Distribution Across all Levels

To answer the second research question, which concerns the frequency-band distribution of the target vocabulary, the target lexical items from each of the six coursebooks were analyzed. Table 4 provides the comparative distribution of vocabulary items coming from each frequency band (the detailed versions can be found in Appendix 2). The vocabulary coming from low-frequency bands (above 10k) was grouped for convenience. The results mean that the vast majority of new words for students at the beginning levels of learning English (A1–A2 levels) come from the most frequent vocabulary bands, as they appear in the BNC/COCA corpora. As the students progress through their learning journey, they should encounter more and more lexical items

Table 4 *Vocabulary Coverage Across the Frequency Bands*

K-level	Beginner	Elementary	Pre-Intermediate	Intermediate	Upper-Intermediate	Advanced
k-01	86.87%	74.20%	67.98%	57.99%	71.74%	55.20%
k-02	7.52%	16.86%	20.12%	21.16%	11.42%	15.92%
k-03	0.98%	2.43%	5.28%	11.66%	7.70%	10.87%
k-04	0.58%	0.87%	2.05%	3.78%	2.95%	5.91%
k-05	0.46%	1.04%	1.00%	1.39%	1.50%	3.59%
k-06	–	0.26%	0.70%	0.77%	1.11%	1.97%
k-07	0.17%	0.26%	0.24%	0.39%	0.47%	1.97%
k-08	0.06%	0.17%	0.29%	0.23%	0.43%	0.39%
k-09	–	0.17%	–	0.23%	0.13%	0.39%
10k+	0.23%	–	0.18%	0.08%	0.39%	0.94%
k-off	2.95%	3.39%	2.11%	2.16%	2.05%	2.87%

of mid- and low frequency. This trend is consistent across most textbooks constituting the Outcomes series, except for the Upper-Intermediate level, where almost 72% of all the target vocabulary items come from the first 1k frequency band.

A qualitative analysis of the Upper-Intermediate textbook revealed that the high number of high-frequency words might be attributed to the large amount of idiomatic vocabulary and collocations. It seems like several units in the Upper-Intermediate book focus on vocabulary depth as they include many lexical items that might be potentially familiar to the learners, but with new shades of meaning. For example, Unit 5, dedicated to sports, introduces such vocabulary as *a red card*, *post*, *bar* (as parts of football-related equipment), *try* (as part of an expression *score that try*). While these words might appear to be too simple for a B2 learner of English, they are very topic-specific and, potentially, challenging to retrieve in certain contexts. Similarly, Unit 6 introduces a large number of fixed expressions and idioms which are made up of simple, frequent words, such as *make ends meet*, *find one's feet*, and *short of money*. Another interesting example of vocabulary instruction comes from Unit 9, dedicated to careers and studying, which introduces some practical vocabulary for presentations, such as *in short*, *I think*; *thank you very much*; *today*, *I will talk to you about*. Therefore, these vocabulary sections focus on some pragmatic nuances of the meaning.

Since often, school curricula and individual teachers incorporate a textbook series as their primary source of instructional materials for all incoming students, I also analyzed the target vocabulary for all the coursebooks in the series (see Table 5). Previous research has argued that many instructional materials put unreasonable emphasis on mid- and low-frequency vocabulary, not providing sufficient coverage of high-frequency vocabulary (Dronjic, 2019). However, the results of this analysis show that Outcomes emphasize the teaching of high-frequency lexical items.

Table 5 Target Vocabulary Frequency Distribution for the Six Combined Levels (A1–C1)

Level	Tokens	%	Cumulative %
k-01	7,242	68.547	68.547
k-02	1,581	14.965	83.512
k-03	720	6.815	90.327
k-04	311	2.944	93.271
k-05	174	1.647	94.918
k-06	97	0.918	95.836
Coverage ⇒ 95%			
k-07	72	0.681	96.517
k-08	30	0.284	96.801
k-09	17	0.161	96.962
10k+ (k-10 to k-19)	39	0.367	97.329
k-off	269	2.546	99.875
Coverage ⇒ 98%			

Strategy Instruction in the Textbooks

The final research question, asking about whether the course incorporates vocabulary learning strategies into the curriculum, was approached by a qualitative analysis of the six textbooks to see whether there are any tips or advice related to vocabulary learning. The analysis revealed that the Beginner-level textbook does not incorporate vocabulary learning strategy instruction. Starting at the Elementary level, the textbooks included a section at the end of some units that asked the learners to reflect on their learning process (metacognitive strategies). However, these strategies are limited to remembering what new vocabulary they learned from the unit and

VOCABULARY Collocations

Collocations are words that usually go together. In English, *take* goes together with *the bus*, *a photo* or *a break*. In your language, maybe you can use the same verb with these three nouns, or maybe you can't. Different languages often have different collocations.

Figure 2 Example Section Incorporating Learning Strategies Instruction from Outcomes, Beginner.

encouraging the learners to think of some ways to practice the new lexical items. In the Pre-Intermediate and the Intermediate levels, several questions inquire about the usefulness and applicability of the new vocabulary. An example of the vocabulary learning strategy box can be found in Figure 2.

Quite interestingly, the higher-level textbooks do not incorporate vocabulary learning strategies into their instruction. The only mention of vocabulary instruction-related material in the Advanced book appears in the Understanding vocabulary section on phrasal verbs. There, the students are encouraged to notice the collocations accompanying phrasal verbs. Possibly, the coursebook authors believe that higher-proficiency learners possess enough autonomy to control their vocabulary acquisition and do not need additional advice concerning the efficient methods to approach such learning.

Qualitative Analysis of Vocabulary Recycling Rates

Since previous research highlights the importance of scheduled rehearsal, I also noted where and in which context vocabulary items tend to appear across the units in the textbooks. Five random vocabulary items were chosen from each unit of the textbooks (Pre-Intermediate and Intermediate levels). Once the target vocabulary corpus was compiled, five single-word units were selected at random from each unit, making sure the vocabulary items were not repeated. The decision to only focus on five words was made for practical purposes. Their mean frequencies across the coursebooks were calculated. The results of this analysis are presented in Table 6. Considering the wide range of values, it can be argued that the mode is more representative for our purpose. Therefore, it can be concluded that many vocabulary items appear three to four times across the books, not providing enough encounters for the learners to meaningfully remember the word.

Table 6 *Descriptive Statistics for the Target Vocabulary Recurrence Rate in the Pre-Intermediate and Intermediate Textbooks*

Textbook	Mean	Mode	SD	Range
Intermediate	9.43	3	13.36	1–55
Pre-Intermediate	10.14	3, 4	15.25	1–74

The qualitative analysis revealed that vocabulary recycling opportunities vary widely across items. Usually, new lexis is introduced in the Vocabulary sections, followed by a controlled practice exercise that requires students to fill in the gaps, match with a suitable option, or sort/order. Sometimes, the textbook provides an immediate opportunity to use new words in speaking. For example, Unit 4 of the Pre-Intermediate textbook introduces the word *bitter* in relation to food. First, the learners need to place the adjective in the correct column, then they read a description of a food and need to guess what it is (*The inside is green and it's not really sweet or bitter*). Lastly, they are given an opportunity to use the word when describing a food to their partner in a freer practice exercise. Therefore, even if the word does not explicitly

reappear in the textbook, there is still a chance that the learners will either produce it in response to a task or hear it from their peers. Yet, the word *bitter* does not appear anywhere else in further units, arguably, not giving the learners enough time to build an in-depth knowledge of the lexical item. Similarly, the word *increase*, which is introduced in Unit 1, has a recycling rate of five occurrences, but after the first encounter, the students review it in the following unit, and are not exposed to it until Unit 9, where it appears in a range of activities. Previous research has emphasized the importance of scheduled rehearsal (Hulstijn, 2001; Moody, 1982; Foster & Saenko, 2025). This implies that learners tend to memorize vocabulary better if they repeat it in spaced intervals. The results of the current analysis might indicate an insufficient number of encounters and limited spacing for efficient vocabulary gains.

Some examples of more efficient target vocabulary instruction in the Pre-Intermediate book include the words *compete* and *urgent*. In Unit 5, dedicated to sports, the learners are asked to match questions with answers. Most sentences in the exercise contain some bolded vocabulary items. After completing the first exercise, the learners are asked to answer these questions in groups. Hence, this exercise provides multiple opportunities to hear and use the target vocabulary. Later, the students are exposed to the word in a reading passage and another vocabulary section within the same unit. The second vocabulary exercise targets vocabulary depth while incorporating a vocabulary learning strategy (*Learning word families can help you build your vocabulary*). There, the students are asked to focus on word families and morphemes: **compete** (v), *competitive* (adj), *competition* (n), *competitor* (n). The word also appears in the listening exercises of Unit 6 and a review section following Unit 7. The word *urgent* introduced in Unit 9 shows similar rates of frequency and dispersion in the textbook. The students are asked to first fill in the gaps with the target vocabulary items, and then match the two parts of the jokes. This way, the learners are likely to notice the target words at least twice in the introductory exercise. The next exercise targeting the vocabulary item appears in the Review section following Unit 10. Later, it reappears three times in Unit 12 under different circumstances (in reading and listening sections). Importantly, these encounters potentially provide students with additional information about the word related to its morphology and the contexts in which it can be used. For example, the reading passage incorporates a derivative: ... *but around a third of them are non-urgent*.

In the Intermediate textbook, some positive examples of vocabulary instruction include the words *struggle*, *confident*, and *engineer*. The verb *struggle* is introduced in Unit 1, speaking about language learning. Unit 1 provides several opportunities for spaced rehearsal as the vocabulary item appears in two controlled practice exercises targeting vocabulary acquisition and in two reading texts. The verb is reintroduced in the Vocabulary section of Unit 8 on education, in Unit 12 speaking about family and friends, and in Unit 16 on the topic of celebrities. Additionally, it appears in a wide range of exercises, targeting both productive and receptive skills and across different texts (listening, speaking). This way, the textbook stimulates both implicit and explicit acquisition of vocabulary. Another example of a multifaceted approach to vocabulary instruction in the Outcomes textbook is the word family associated with the noun *confidence*. Interestingly, before being explicitly introduced in Units 4 and then in Units 12

and 16 as a target lexical item, it appears in several reading and listening texts, providing opportunities for incidental learning. Some exercises and texts incorporate it as a noun, others as an adjective or an adverb, adding to the layers of vocabulary knowledge of students. Finally, the word *engineer*, which shows a recurrence rate of 13 in the textbook, also appears in different contexts and in various iterations (e.g. *software engineer*, *they're studying engineering*, *do engineering at university*, etc.).

However, the Intermediate textbook also includes some instances where vocabulary items are introduced but not recycled further. For example, Unit 5 introduces the noun *applicant* in an exercise targeting vocabulary: *It's a very competitive field. There are hundreds of applicants for every job*. The only other time when a word from the same word family appears is in a listening passage from Unit 14. Similarly, the word *laundry* appears only once in Unit 9 of the textbook, not recycled anywhere else. Another vocabulary item analyzed during this qualitative investigation, *chew*, has a recurrence rate of four. Even though it is the focus of several vocabulary exercises in Unit 7 and in one listening text, it reappears only once in the Vocabulary Review section following Unit 8. Therefore, while students are likely to be provided with some explicit instruction in one unit, the textbook does not include sufficient spaced rehearsal opportunities.

The MATTR analysis revealed almost identical values of 0.43 for both textbooks analyzed in this study. According to previous research, levels of < 0.5 indicate a comparatively high repetition of words, positively affecting the speed of text processing (Churunina et al., 2023). While we do not know an optimal number for word repetition, the general idea is that commercial coursebooks should try to strike a balance between not being too diverse and, therefore, hard to understand, and not too repetitive to become boring.

Teaching and Learning Implications

These results have practical implications for teachers, curriculum designers, learners, and textbook creators. Firstly, when creating a study plan, it is important to consider how the vocabulary instruction will be approached. Anecdotally, teachers are often overwhelmed with the number of tasks they have to complete on top of their teaching load. Moreover, many teachers do not possess sufficient linguistic training to conduct quality research regarding which vocabulary to teach and when. This combination of lack of time and linguistic knowledge can lead to students being exposed to vocabulary either above or below their proficiency level. Adopting a series of coursebooks as the backbone of the English teaching curriculum can provide the teachers with a clear structure and an established set of vocabulary items that allow both the teachers and students to track learner progress through the proficiency levels. Previous research has established that beginning learners should be primarily exposed to the first 2,000–3,000 most frequent words because they are applicable in a wide range of contexts and situations (Nordlund, 2015). The Outcomes series of textbooks introduces vocabulary in a trajectory where lower-level learners usually have more exposure to high-frequency vocabulary, with the percentage of mid-frequency and low-frequency vocabulary increasing throughout the course levels.

Even though we still do not know the exact number of recurrences and the specific spacing intervals for successful vocabulary acquisition, previous studies seem to show that “the more, the better” might be considered a golden rule. Additionally, most research reveals values of five or more for the recurrence rates as optimal for efficient vocabulary instruction. Therefore, most target vocabulary items introduced in the coursebooks which this study analyzed are not recycled often enough for successful vocabulary learning. Arguably, it is not feasible for textbook designers to guarantee a perfect recycling rate along with optimal spaced rehearsal opportunities. This means that teachers should be aware of these restrictions and plan additional practice opportunities for certain vocabulary items. There is some evidence that the Outcomes textbook series does not provide sufficient input of academic vocabulary, required for successful completion of the IELTS. This means that if students aim to prepare for the examination, teachers should either choose a different textbook or complement the course with other resources. While the textbook series provides ample high-frequency vocabulary input, the amount of low-frequency and academic vocabulary is limited. This means that both teachers and students should put a conscious effort into enlarging the exposure to such lexis. Therefore, the textbook series might be most appropriate for general English instruction since it covers a wide range of practical topics potentially useful for many language learners.

Conclusion and Limitations

This study aimed to evaluate vocabulary instruction in the Outcomes, third edition, series. The results of vocabulary frequency analysis revealed that the coursebooks provide extensive coverage of high-frequency vocabulary, which is crucial for L2 comprehension. As the students progress through the course, they are exposed to a larger percentage of low- and mid-frequency vocabulary. Additionally, the investigation of target vocabulary across the levels showed that the course provides opportunities for mastering the most frequent 3,000 word families. However, arguably, the textbooks do not incorporate enough academic and low-frequency lexis, which might be expected of learners at higher levels of language proficiency. Therefore, teachers should supplement the textbooks with some additional materials which can complement the content of the coursebooks. Also, teachers should be mindful of the differences in vocabulary recurrence rates throughout the course. The qualitative findings of the current study indicate that additional practice exercises should be incorporated for some vocabulary items. Lastly, the course does not target vocabulary learning strategies that can help students enlarge their vocabulary repertoires. Therefore, teachers should dedicate class time to vocabulary learning strategies instruction to equip their students with the tools needed to master a wide range of vocabulary.

It is important to mention several limitations. Firstly, the current study is limited to one coursebook series. Further empirical research is needed to provide teachers with insights concerning a wider range of widely available teaching resources. Secondly, the study of the coverage level is limited to two textbooks of the course. An analysis of the entire series is necessary to provide a detailed overview of the series. Lastly, this investigation focused on only one aspect of language instruction: vocabulary. Other important components of language teaching and learning should be evaluated along

with vocabulary instruction to provide a more comprehensive overview of the course. Additionally, previous research has shown that it is practically impossible to separate grammar from vocabulary instruction, as these two aspects are closely interconnected. The textbooks provide opportunities for vocabulary learning in the other sections constituting the course, such as *grammar*, *reading*, and *listening*.

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Appendix 1

The Content of the Outcomes Textbooks

Unit	Beginner	Elementary	Pre-Intermediate	Intermediate	Upper-Intermediate	Advanced
1	Be (Introductions)	People and Places	Jobs	First Class	Entertainment	Cities
2	Live, Work, Eat	Daily Life	Shops	Feelings	Sightseeing	Relationships
3	Love, Want, Need	Home	Getting There	Time Off	Things You Need	Culture and Identity
4	Where and When?	Time Off	Eat	Interests	Society	Politics
5	Going Places	Shopping	Relax	Working Life	Sports and Interests	Going Out, Staying In
6	Away from Home	Education	Family and Friends	Buying and Selling	Accommodation	Conflict and Resolution
7	Going Out and Staying In	People I Know	Your Place	Eating	Nature	Science and Research
8	Here and There	Plans	Always Learning	Education	Crime and Punishment	Nature and Nurture
9	Healthy and Happy	Experiences	Mind and Body	Houses	Careers and Studying	Work
10	News	Food	Places To Stay	Going Out	Socialising	Health and Illness
11	Life and History	Travel	Science and Nature	The Natural World	Transport and Travel	Play
12	Thank You and Goodbye	Feelings	On the Phone	People I Know	Health and Medicine	History
13		Nature	Culture	Journeys	Life-Changing Events	News and The Media
14		Opinions	Stuff	Technology	Banks And Money	Business and Economics
15		Technology	Money	Injuries and Illness	Food	Trends
16		Love	Events	News and Events	Business	Danger and Risk

Appendix 2

Beginner:

Level	Tokens	%	Cumulative %
k-01	1,502	86.871	86.871
k-02	130	7.519	94.390
k-03	17	0.983	95.373
Coverage $\Rightarrow$ 95%			
k-04	10	0.578	95.951
k-05	8	0.463	96.414
k-07	3	0.174	96.588
k-08	1	0.058	96.646
10k+ (k-12, k-14, k-17)	4	0.232	96.878
k-off	51	2.950	99.828
Coverage $\Rightarrow$ 98%			

Elementary:

Level	Tokens	%	Cumulative %
k-01	854	74.196	74.196
k-02	194	16.855	91.051
k-03	28	2.433	93.484
k-04	10	0.869	94.353
k-05	12	1.043	95.396
Coverage $\Rightarrow$ 95%			
k-06	3	0.261	95.657
k-07	3	0.261	95.918
k-08	2	0.174	96.092
k-09	2	0.174	96.266
10k+ (none)	0	0.000	96.266
k-off	39	3.388	99.654
Coverage $\Rightarrow$ 98%			

Pre-Intermediate:

Level	Tokens	%	Cumulative %
k-01	1,159	67.977	67.977
k-02	343	20.117	88.094
k-03	90	5.279	93.373
k-04	35	2.053	95.426
<i>Coverage $\Rightarrow$ 95%</i>			
k-05	17	0.997	96.423
k-06	12	0.704	97.127
k-07	4	0.235	97.362
k-08	5	0.293	97.655
10k+ (k-11, k-14, k-19)	3	0.177	97.832
k-off	36	2.111	99.943
<i>Coverage $\Rightarrow$ 98%</i>			

Intermediate:

Level	Tokens	%	Cumulative %
k-01	751	57.992	57.992
k-02	274	21.158	79.150
k-03	151	11.660	90.810
k-04	49	3.784	94.594
k-05	18	1.390	95.984
<i>Coverage $\Rightarrow$ 95%</i>			
k-06	10	0.772	96.756
k-07	5	0.386	97.142
k-08	3	0.232	97.374
k-09	3	0.232	97.606
10k+ (k-14)	1	0.077	97.683
k-off	28	2.162	99.845
<i>Coverage $\Rightarrow$ 98%</i>			

Upper-Intermediate:

Level	Tokens	%	Cumulative %
k-01	1,678	71.740	71.740
k-02	267	11.415	83.155
k-03	180	7.696	90.851
k-04	69	2.950	93.801
k-05	35	1.496	95.297
<i>Coverage $\Rightarrow$ 95%</i>			
k-06	26	1.112	96.409
k-07	11	0.470	96.879
k-08	10	0.428	97.307
k-09	3	0.128	97.435
10k+ (k-10 to k-18)	9	0.387	97.822
k-off	48	2.052	99.874
<i>Coverage $\Rightarrow$ 98%</i>			

Advanced:

Level	Tokens	%	Cumulative %
k-01	1,290	55.199	55.199
k-02	372	15.918	71.117
k-03	254	10.869	81.986
k-04	138	5.905	87.891
k-05	84	3.594	91.485
k-06	46	1.968	93.453
k-07	46	1.968	95.421
<i>Coverage $\Rightarrow$ 95%</i>			
k-08	9	0.385	95.806
k-09	9	0.385	96.191
10k+ (k-10 to k-19)	22	0.942	97.133
k-off	67	2.867	100.000
<i>Coverage $\Rightarrow$ 98%</i>			