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Investigating Lower- and Higher-Order Thinking Skills Representation in English for Palestine 11

تحليل تمثيل مهارات التفكير الدنيا والعليا في كتاب اللغة الإنجليزية للصف الحادي عشر في فلسطين

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Abstract:

The purpose of this study was to investigate whether the representation of HOTS and LOTs in the activities and exercises in *English for Palestine 11* is balanced. In addition, the study aimed to examine whether there is a balanced representation among the HOTS and LOTs. For this purpose, a descriptive-analytical approach was employed to analyze the wording of the textbook activities and exercises. To collect the research data, a checklist and an analysis card were developed based on Bloom's original Taxonomy. Moreover, descriptive statistics were used to quantify the analyzed data and calculate their frequencies and percentages. Findings revealed that the representation of the HOTS and LOTs in the activities and exercises lacks balance, with an emphasis on the LOTs (70%) over the HOTS (30%). Findings also indicated that the application skill predominates the textbook activities, accounting for 31.7% of the total frequency of the representation of cognitive skills, whereas the comprehension and knowledge skills were represented by 25.6% and 12.8%. In addition, analysis had the highest frequency, 17.7% among the HOTS, while evaluation and synthesis had a frequency of 8.7% and 3.5%, respectively. Based on the study's findings, it was recommended that EFL teachers use supplementary activities that foster students' thinking skills. It was also recommended that curriculum designers integrate more high-level thinking activities in EFL textbooks to achieve a balance between them and the HOTS. Future research should investigate the effect of the frequency of cognitive skills representation on EFL students' achievement.

Keywords: English for Palestine Textbooks, HOTS, LOTS, Content Analysis, Textbook Evaluation

المخلص:

هدفت هذه الدراسة إلى التعرف على مدى تمثيل مهارات التفكير الدنيا و العليا في كتاب منهاج اللغة الإنجليزية الفلسطيني للصف الحادي عشر (كتاب الطالب) بالإضافة إلى التعرف على مدى توازن هذا التمثيل. ولتحقيق هذا الهدف، تم استخدام الأسلوب التحليلي الوصفي لتحليل محتوى الأنشطة و التمارين في الكتاب، و لجمع بيانات الدراسة تم تطوير قائمة للتحقق و المراجعة و بطاقة للتحليل النوعي بالاعتماد على تصنيف بلوم الأصلي. و قد تم أيضا استخدام الإحصاء الوصفي لحساب تكرارات و نسب تمثيل مهارات التفكير العليا و الدنيا في أنشطة الكتاب. و قد أشارت النتائج أنه لا يوجد توازن في تمثيل هذه المهارت في أنشطة الكتاب مع تركيز على المهارت الدنيا بنسبة 70%، و بينت النتائج أيضا تركيز الأنشطة على مهارة التطبيق بنسبة 31,7% و بنسبة 25,6% لمهارة الاستيعاب و نسبة 12,8% لمهارة المعرفة، أما فيما يخص مهارات التفكير العليا فقد بينت النتائج أن مهارة التحليل تم تمثيلها بنسبة 17,7% في أنشطة الكتاب، بينما كان تمثيل مهارتي التقييم و التركيب منخفضا بنسبة 8,7% و 3,5% على التوالي. و في ضوء هذه النتائج أوصت الدراسة باستخدام معلمي اللغة الإنجليزية لأنشطة تكملية لتعزيز مهارات التفكير العليا لدى الطلاب، كما أوصت الدراسة مصممي المناهج بضرورة تضمين الأنشطة لمهارات التفكير بشكل متوازن، و أوصت الباحثين بإجراء دراسات مستقبلية لبحث أثر تمثيل مهارات التفكير في أنشطة الكتاب على تحصيل الطلاب في اللغة الإنجليزية.

الكلمات المفتاحية: منهاج اللغة الإنجليزية الفلسطيني، مهارات التفكير الدنيا مهارات التفكير العليا، تحليل المحتوى، تقييم الكتب الدراسية.

Introduction, Background, And Context

Curriculum is considered the educational constitution of any nation. It encompasses educational philosophy, skills, norms, and cultural values that any country aims to establish within the consciousness and behavior of the targeted learners. It also aims to equip learners with new millennium skills and qualify them to contribute to the development of their country. Therefore, large resources are

devoted to designing, developing, and evaluating curricula that reflect the comprehensive culture of the nation and align with the learners' needs in any country.

Study context

The purpose of this study was to examine the representation of LOTs and HOTs in the tasks and activities included in *The English for Palestine 11* (pupils' book). This textbook is one of the *English for Palestine* series that is currently being used to teach EFL at Palestinian schools from Grade 1 to Grade 12.

Overview of the *English for Palestine* series

The first national Palestinian curriculum was introduced in 2000. The major goal of the English for Palestine is to develop students' linguistic and communicative competencies to enable them to use English for authentic communication. In designing the first EFL curriculum, the English Curriculum National Team considered the following factors: "...the nature of knowledge, society's needs and values, the learners and their needs and interests, and the teacher and his/her role(s)" (Najjar et al., 2015, p.13). They also added that to "... meet the ever-changing needs of our times and to create the independent learner, the present curriculum promotes the new basic academic and success skills needed for the 21st Century" (Najjar et al., 2015, p.23).

English for Palestine 11

English for Palestine 11 series encompasses the following components: Pupil's Book (the core-language book), Reading Plus Book, Teacher's Book, and a teacher's audio CD. According to the English Language Curriculum Team (2018), the objectives of Grade 12 are: extending the pupils' active and passive vocabulary, reviewing and extending grammar learned previously, improving the pupils' analytical, critical, and evaluative skills, preparing the pupils to use English in real-life situations, and improving the reading, writing, speaking, and listening skills.

The Pupil's book includes 12 units. Each unit includes two reading comprehension texts followed by their questions, vocabulary exercises, a speaking activity, and two grammar sections, followed by their exercises, and a listening activity that acts as an introduction to the writing activity. Each unit is supposed to be covered in six 40-minute classes. Recently, there has been an intense debate among Palestinian EFL teachers, curriculum developers, and community members regarding the effectiveness of the Palestinian EFL textbooks and whether they empower students to acquire the new millennium skills that are necessary to meet the requirements of the modern market. Among these skills are the higher-order thinking skills (HOTs), which include analysis, synthesis, and evaluation. Consequently, much research has been conducted to analyze the content of the *English for Palestine* textbooks to find whether they include critical thinking skills such as HOTs.

Problem statement

Following its introduction, *English for Palestine 11* has received much criticism concerning the appropriateness of its content to the students' needs, preferences, and language abilities. Additionally, during the researcher's experience as a teacher of English, he noticed that the EFL teachers often complain about the effectiveness of *English for Palestine 11*. They also complain about its potential to prepare students to use language in real-life situations and to equip them with the critical thinking skills that enable them to meet the requirements of the modern market and the challenges of the modern age.

In addition, the existing literature in the field of curriculum highlights the significance of HOTS and their role in preparing learners for the real world. Nevertheless, limited research has been conducted to examine the representation of HOTS and LOTs in the tasks included in *English for Palestine 11*. Therefore, the researcher decided to conduct this study to analyze the activities and exercises included in *English for Palestine 11* to find out whether higher-order thinking skills (HOTS) and lower-order thinking skills (LOTs) are represented in a balanced way in the EFL material.

Research objectives

This study aims to:

1. To determine whether the total representation of LOTs and HOTS in *English for Palestine 11* is balanced.
3. To determine whether the representation of the three LOTs in *English for Palestine 11* is balanced.
4. To determine whether the representation of the three HOTS in *English for Palestine 11* is balanced.

Research Questions

The purpose of this research is to answer the following questions:

1. Is the total representation of HOTS and LOTs in *English for Palestine 11* balanced?
2. Is the representation of the three LOTs in *English for Palestine 11* balanced?
3. Is the representation of the three HOTS in *English for Palestine 11* balanced?

Significance of the study

According to the available literature, no such study has been conducted in Palestine to investigate the representation of HOTS and LOTs in the *English for Palestine 11*. By identifying whether HOTS and LOTs are equally represented and which HOTS and LOTs are under- or over-represented, this study will contribute to resolving the debate over the effectiveness of this textbook. In addition, the results of this study will offer significant recommendations for curriculum developers, policymakers, teachers, and other practitioners regarding the effectiveness of this textbook and its role in achieving the curriculum goals. Moreover, the findings of this study will benefit curriculum designers by offering them research-based insights regarding the role of the textbook content in developing learners' modern era skills that help them succeed in the real world.

Limitations of the study

This study will be limited to the analysis of the content of the *English for Palestine 11* textbook in the academic year 2024/2025 in order to identify the representation of HOTS and LOTs. This will restrict the applicability of the results of the study to other EFL textbooks in Palestine.

Definitions of the study key terms

Higher order thinking skills (HOTS)

HOTS are advanced thinking skills that enable learners to solve problems and qualify them to align with the requirements of being successful in the new millennium (Ministry of Education Malaysia, Curriculum Development Division, 2014).

Analysis

Analysis, according to Bloom, Engelhart, Furst, Hill, and Krathwohl (1956), “emphasizes the breakdown of the material into the constituent parts and detection of the relationships of the parts and how they are organized” (p.144).

Synthesis

Bloom, Engelhart, Furst, Hill, and Krathwohl (1956) define synthesis as “the putting together of elements and parts so as to form a whole. This is a process of working with elements, parts, etc., and combining them in such a way as to constitute a pattern or structure not clearly there before” (p.162).

Evaluation

Evaluation is “the making of judgments about the value, for some purpose, of ideas, works, solutions, methods, material, etc. It involves the use of criteria as well as standards for appraising the extent to which particulars are accurate, effective, economical, or satisfying” (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956, p.185).

Literature review

Bloom’s taxonomy

The conceptual foundation of this study is based on Bloom’s taxonomy, which categorizes the skills that learners are supposed to acquire into two main categories: Lower-Order Skills (LOTS) and Higher-Order Skills (HOTS) (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956).

Bloom and other educational psychologists proposed that there are cognitive processes that occur within learners’ brains while they are learning. These processes are ordered according to their complexity and categorized into six cognitive levels that follow a hierarchical order, in which mastering the higher levels is dependent on the lower levels. This taxonomy employs measurable verbs used to formulate the educational goals that learners are expected to achieve (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956).

Higher-order thinking skills

These skills are high-level skills that enable learners to employ previous knowledge, think critically, and solve problems they may face in real-life situations. Transferring knowledge is achieved through recalling and understanding knowledge; critical thinking is related to using logic to assess knowledge and decide whether it is useful or not, whereas problem-solving helps learners overcome obstacles that prevent them from achieving their goals. Therefore, improving HOTS enhances learners’ performance and helps them not only recall or comprehend information but also use it to select whatever information they decide is useful to solve problems in real-life situations (Brookhart, 2010).

HOTs can be accommodated in EFL activities that involve students in critical thinking regarding authentic language use, expressing their viewpoints, and justifying them. Activities such as group projects, participating in arguments about controversial issues, suggesting a story's alternative ending, and using English to solve real-world problems can enhance the development of students' HOTs and help them use more advanced skills than memorization and rote learning (Shabrina et al., 2025).

Lower-order thinking skills (LOTs)

Lower-order thinking skills are basic skills that require students to memorize, understand, or apply knowledge. Therefore, they are placed in the lower level of Bloom's Taxonomy and are labeled as knowledge, comprehension, and application. This means that mastering LOTs is a prerequisite to mastering HOTs (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). Both HOTs and LOTs have a role in scaffolding students' learning; therefore, they should be sufficiently represented in instructional materials (Huberty & Davis, 1998). Students are usually required to employ LOTs in EFL classrooms to do activities such as answering questions that start with what or when, matching vocabulary items with their meanings, etc., to enhance students' linguistic competence and proficiency and help them master the basic components of language before they begin analyzing and evaluating texts in the target language (Shabrina et al., 2025).

The importance of EFL textbooks

A textbook is considered the cornerstone of any EFL classroom because it includes language components, language skills, information about the target culture, and the essential skills that enable learners to communicate with people using the foreign language (Radić-Bojanić & Topalov, 2016). Nunan (1999) stated that "a textbook is the main component of any instructional program and it is difficult to imagine a class without it" (p.98). Moreover, Hutchinson and Torres (1994) maintained that a textbook is regarded as a common component in all language programs. Similarly, Sheldon (1988) pointed out that textbooks "represent the heart of any ELT program" (p.237). Additionally, Wen-Cheng et al. (2011) argued that a textbook can have benefits for both EFL teachers and students. It helps teachers by offering a sequenced instructional material, an equal representation of language skills, and diverse activities that help EFL teachers create an engaging environment that involves students in authentic communication during language classes. Furthermore, a textbook can keep students in contact with language by providing them with language input through engaging activities that represent real-life language use.

Therefore, evaluating and reviewing EFL textbooks is considered an essential ongoing process for keeping up with recent research findings in the field of language pedagogy. It also guarantees that textbooks align with the characteristics of what is known as a good textbook.

Textbook evaluation

Tomlinson (2003) defines material evaluation as: "a procedure that involves measuring the value (or potential value) of a set of learning materials" (p.21). He pointed out that this procedure involves "making judgements" about the impact of the textbook materials on those who use it by gauging their perspectives on some aspects of textbook content and appearance such as, the textbook's attractiveness, the authenticity and reliability of instructional material, the potential of materials to meet students' and teachers' interest and preferences; the activities incorporation of the four language skills, providing teachers with the latest practices in the field of language instruction and language assessment, as well as any other practices that enhance their professional development. Similarly, Brown (2001) indicated that textbook evaluation checklists should include a list of rubrics that help researchers conduct

evaluations systematically and objectively. These rubrics are related to the textbook's activities, tasks, exercises, physical appearance, and its coverage of language skills, how it aligns with a syllabus and curriculum, and its appropriateness to learners' preferences, needs, interests, and proficiency level.

Textbook evaluation, according to Cunningsworth (1995), can be conducted before, while, and after use. Prior use evaluation takes place prior to teachers' and students' use of the textbook, whereas while-use evaluation is conducted while using the textbook, and post-use evaluation is carried out after using it for a long period of time. No matter when it is carried out, evaluating ELT textbooks is necessary to make sure that they align with curriculum objectives (Mukundan, 2010).

Previous studies

Much research has been conducted recently on the inclusion of HOTS in EFL textbooks. However, limited research has been carried out on this topic in the Palestinian context.

In their study, Keshta and Seif (2013) examined the representation of the HOTS in the reading comprehension questions in *English for Palestine, Grade 8*. Two instruments were used to collect the research data: content analysis and a structured interview with 16 eighth-grade EFL teachers. The researchers used an analytical descriptive approach to analyze the collected data. Findings revealed that there was a lack of balance in the representation of HOTS in the textbook. Results also indicated that the percentages of the representation of the HOT skills were as follows: The analysis skill scored the highest percentage, 51.92%, and the synthesis skill got 41.35%. In contrast, the evaluation skill scored the lowest with a percentage of % 6.73. In addition, the teachers' responses to the interview indicated that there was a consensus among eighth-grade EFL teachers that HOTS are not sufficiently represented in the textbook. Consequently, the researchers recommended improving the textbook by using supplementary exercises that incorporate HOTS.

Fitriani and Kirana (2022) conducted a study that aimed at exploring the representation of HOTS and LOTs in the reading comprehension questions included in the *Bahasa Inggris* Grade 12 textbook in Indonesia. A descriptive-analytical approach was used to collect and analyze research data. Findings revealed that HOTS were represented in 23% of the comprehension questions, while the percentage of LOTs representation was 77%. Findings also indicated that comprehension was accommodated in 38% of the activities, knowledge was accommodated in 35%, and application was accommodated in 4%. On the other hand, the analysis, evaluation, and creation skills were represented by percentages of 11%, 9%, and 3%, respectively. As a result, the researcher recommended that teachers should use supplementary comprehension questions that enhance students' critical thinking skills.

In their study, Laila and Fitriyah (2022) examined the representation of HOTS in the reading comprehension questions included in the EFL textbook entitled "Bahasa Inggris" for Indonesian twelfth graders. To achieve the study objectives, the researcher used a qualitative content analysis design. Findings indicated that there were 184 reading questions in the textbook. Results also revealed that 83 % percent of these questions require students to use LOTs, while only 17% of the questions accommodate HOTS. Consequently, teachers were recommended to use supplementary questions that incorporate HOTS.

Dweikat and Abu Hasan (2023) conducted a study to investigate the extent to which HOTS are included in *English for Palestine, Grade 12*, and to explore teachers' viewpoints toward this representation. To collect the research data, two instruments were used: A questionnaire that was answered by 32 EFL teachers and a content analysis of *English for Palestine, Grade 12*. A mixed-methods approach was employed to analyze the collected data. Findings revealed that there is a total of 248 representations of

HOTs in the examined textbook. Results also indicated that analysis scored the highest, while evaluation scored the lowest frequency in the Pupil's Book. In contrast, in the Reading Plus textbook, the evaluation skill had the highest frequency, whereas analysis had the lowest frequency. Moreover, teachers' viewpoints of the HOTs representation were high, although they pointed out that these skills are not sufficiently represented. Recommendations emphasized the significance of HOTs and the role of EFL teachers in improving student HOTs through the use of supplementary materials.

Gegera and Tesmand (2023) conducted a study that explored the representation of HOTs and LOTs in reading comprehension activities. The researcher used a mixed-approach design to analyze the collected data. The study sample consisted of 115 students who responded to a questionnaire, 16 students who participated in a group discussion, and 53 reading comprehension questions, included in *Communicative English Language Skills I*, for content analysis. Findings revealed that there was an imbalance in the representation of HOTs and LOTs. Whereas the percentage of LOTs representation in the reading questions was 83%, the percentage of Hots representation was only 13%. In addition, the analysis skill scored 9.43%, while each of the synthesis and evaluation skills scored 3.77%. Based on these findings, the researchers recommended that the analyzed textbook should be revised to include more reading comprehension questions that represent HOTs. Teachers were also recommended to use supplementary questions that enhance HOTs.

In a recent study, Dallahsheh (2024) investigated the representation of HOTs and LOTs in Wh-questions included in the EFL textbook used to teach English to ninth-graders in the Arab community in the Palestinian Territories, occupied in 1948. The researcher used a qualitative research design to analyze the Wh-questions in the textbook to find out to what extent HOTs and LOTs are represented in these questions. Frequencies and percentages of the HOTs and LOTs were calculated. Findings revealed that the total number of Wh-questions in the textbook was 219, of which 167 required the use of students' LOTs and 52 required the use of students' HOTs. In other words, 77% of the questions were found to represent LOTs, while only 23% of the questions represent HOTs. Within the HOTs, analysis skills had the highest percentage, 17%, whereas synthesis and evaluation skills scored 4% and 2% respectively. In light of these findings, the researcher recommended that textbook designers should balance the inclusion of HOTs and LOTs in Wh-questions.

Maryamah et al. (2024) carried out a study to determine the extent to which HOTs are included in EFL textbooks in Indonesia. The study sample included the reading comprehension questions included in Grade 7 English Language textbooks. Qualitative content analysis was employed to collect the research data. The research results indicated that the percentage of LOTs representation in the analyzed questions was 80.4%, while the HOTs representation was 19.6%. Findings also pointed out that these questions were ordered according to the skill level they represent. The study concluded with implications that may help EFL teachers, textbook designers, and researchers for further studies in the field of HOTs.

In a recent study, Mahardhika et al. (2025) examined the inclusion of HOTs and LOTs in the questions that were included in the EFL fifth-grade textbook in Kuningan, West Java. Two tools were used to collect the research data: a content analysis of the questions included in the textbook and an interview with the EFL teachers to identify their perspectives on the use of HOTs questions in the analyzed textbook. In addition, A mixed-research design was employed to analyze the collected data. The findings pointed out that 90.9% of the questions represented LOTs, whereas only 9.1% represented HOTs. The results obtained from analyzing the teachers' responses coincided with the findings of the textbook content analysis. Curriculum and textbook designers are recommended to include sufficient questions and activities in EFL textbooks that represent HOTs.

In another recent study, Shabrina et al. (2025) explored the inclusion of lower- and higher-order thinking skills in a grade 7 EFL textbook in Indonesia. To achieve the study objectives, an analytical approach based on Bloom's Taxonomy was used. In addition, descriptive statistics were used to calculate the frequencies and percentages of the representations of HOTS and LOTs in the questions included in the seventh-grade EFL materials. Results indicated that there was a higher representation of LOTs (71%) in the textbook than HOTS (29%). Within HOTS, the analysis skill got the lowest percentage, while evaluation and synthesis scored 14% and 10% respectively. Consequently, the researchers recommended that EFL teachers should use supplementary questions that involve the use of HOTS. Moreover, textbook designers should include more HOTS questions to enhance students' higher-order thinking skills.

Methodology

Research Design

A descriptive analytical design was employed to analyze the activities and exercises included in English for Palestine 11, which comprised 12 units. Two units were excluded as they were revision units. All the activities and exercises included in the ten units were analyzed using the content analysis method to determine the extent of HOTS and LOTs inclusion according to Bloom's (1956) Taxonomy. In addition, descriptive statistics were used to calculate the frequencies and percentages of the HOTS and LOTs representation in the EFL activities. Integrating descriptive statistics with content analysis would enhance the reliability of the results, as it enables the researcher to add an objective, concise description of the qualitative data.

Study population

The study population included all 24 *English for Palestine* textbook series, by Macmillan Publishers, being taught at Palestinian government schools in the academic year 2025/2026.

Study sample

The study sample included the *English for Palestine 11* textbook for the academic year 2025/2026.

Instrument of the study

This study employed content analysis to collect the research data. Analyzing all the activities and exercises in *English for Palestine 11* required constructing an analysis card and a checklist, which were used to code and categorize the textbook activities according to the cognitive level they required: either HOTS or LOTs. Content analysis also involved deciding on the unit of analysis and the coding scheme. The unit of analysis used in this study was the wording of each activity and exercise included in the textbook.

The coding scheme

A coding scheme is a systematic plan that includes certain criteria for coding and classifying the components of the content in a way that helps the researcher to answer the research questions. In this research, each activity and exercise in *English for Palestine 11* was analyzed and categorized according to Bloom's Original Taxonomy (1956), which classifies cognitive processes involved in these activities into six levels: Knowledge (L1), Comprehension (L2), Application (L3), Analysis (L4), Synthesis (L5), and Evaluation (L.6) (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956, p.185).

Activities and exercises were categorized as Knowledge (L1) if they included action verbs such as Mention, Find, Tell, State, Define, or Recite; Comprehension (L2) in case they included verbs such as Describe, Summarize, Discuss, Outline, Predict, Interpret, or Explain; Application if they included Solve, Use, Apply, Illustrate Construct, or Examine; Analysis (L4) if they use verbs such as Categorize, Analyze, Classify, Compare or Contrast; Synthesis (L5) if employ verbs such as Design, Create, Plan Construct, Invent, Devise, Make; Evaluation (L.6) if they include verbs such as judge, justify, Debate, Recommend, Prioritize, or Experiment (Anderson & Krathwohl, 2001, pp. 66-68).

Additionally, activities and exercises that require cognitive processes coded as L1, L2, or L3 were classified as LOTs, whereas those coded as L4, L5, or L6 were classified as HOTs. The following is a summary of the coding plan, which was used as a guide for content analysis in the current research. Table 1 presents the checklist, which was used for collecting the research data and classifying them under the appropriate cognitive skills.

Table 1

Content analysis checklist based on Bloom's Taxonomy

Unit no.	Activity no.	Page no.	Knowledge L1	Comprehension L2	Application L3	Analysis L4	Synthesis L5	Evaluation L6

Instrument validity

To ensure the validity of the instruments, a coding scheme, an analysis card, and a checklist were designed, drawing on Bloom's original Taxonomy. In addition, the researcher sent them to two experts in curriculum design, who assured their validity for the study's purpose.

Instrument inter-rater reliability

To establish the instrument's inter-rater reliability, two independent coders coded the first two units in *English for Palestine II*, with 93% coding correspondence.

Data Analysis

The researcher employed the content analysis method to analyze the textbook activities and exercises, which were classified into six categories based on cognitive processes in Bloom's Taxonomy. Furthermore, descriptive statistics were used to calculate the frequencies and percentages of the representation of HOTs and LOTs in the analyzed activities and exercises.

Results

Results of research question 1

The first research question was: “Is the total representation of HOTS and LOTs in *English for Palestine 11* balanced?”

Table 2

Total Frequencies and Percentages of HOTS and LOTs in English for Palestine 11

Cognitive skill	Knowledge L1		Comprehension L2		Application L3		Total	
	f	%	f	%	f	%	f	%
LOTs	44	12.79%	88	25.58%	109	31.69%	241	70%
	Analysis L4		Synthesis L5		Evaluation L6		Total	
HOTS	f	%	f	%	f	%	f	%
	61	17.73%	12	3.49%	30	8.72%	103	30%

Note. f= frequency; HOTS = Higher-order thinking Skills; LOTs= Lower-Order Thinking Skills.

Table 2 shows that the total frequency (f) of the representation of the lower-order thinking skills in *English for Palestine 11* was higher than that of the higher-order skills. The total frequency of LOTs was 241, accounting for 70% of the total frequency of cognitive skills, whereas the total frequency of the HOTS was 103, accounting for 30%. This shows that LOTs are emphasized over HOTS and that the total representation of HOTS and LOTs in *English for Palestine 11* is imbalanced.

4.2 Results of research question 2

The second research question was: “Is the representation of the three LOTs in *English for Palestine 11* balanced?”

Table 3

Frequencies and Percentages of HOTS and LOTs in each unit in English for Palestine 11

Unit	Knowledge L1		Comprehension L2		Application L3		Analysis L4		Synthesis L5		Evaluation L6		Total f
	f	%	f	%	f	%	f	%	f	%	f	%	
1	14	4.07%	14	4.1%	0	0.00%	9	2.62%	2	0.58%	4	1.16%	43
2	6	1.74%	6	1.7%	4	1.16%	15	4.36%	4	1.16%	3	0.87%	38
3	1	0.29%	8	2.3%	10	2.91%	13	3.78%	1	0.29%	5	1.45%	38

4	0	0.00%	10	2.9%	13	3.78%	4	1.16%	0	0.00%	1	0.29%	28
5	4	1.16%	10	2.9%	14	4.07%	4	1.16%	1	0.29%	1	0.29%	34
7	4	1.16%	5	1.5%	14	4.07%	3	0.87%	1	0.29%	3	0.87%	30
8	2	0.58%	5	1.5%	13	3.78%	3	0.87%	1	0.29%	7	2.03%	31
9	9	2.62%	8	2.3%	13	3.78%	1	0.29%	0	0.00%	2	0.58%	33
10	2	0.58%	12	3.5%	15	4.36%	3	0.87%	1	0.29%	1	0.29%	34
11	2	0.58%	10	2.9%	13	3.78%	6	1.74%	1	0.29%	3	0.87%	35
Total	44	12.79%	88	25.58%	109	31.69%	61	17.7%	12	3.49%	30	8.72%	344

Note. F= frequency

Table 3 presents the frequencies and percentages of the representation of each HOT in *English for Palestine 11*. It shows that the application skill had the highest frequency (31.69%), whereas the comprehension and knowledge skills had 25.58% and 12.79%, respectively. This points out that the application skill is predominant and that the representation of the three LOTS among the activities and exercises in *English for Palestine 11* lacks balance.

Results of research question 3

The third research question was: “Is the representation of the three HOTS in *English for Palestine 11* balanced?”

As shown in Table 3, the analysis skill had the highest frequency (n=61, 17.3%), compared to the evaluation skill (n=30, 8.72%) and synthesis skill (n=12, 3.49%). This indicates that the analysis skill was more frequently represented than the synthesis and evaluation skills.

Discussion, conclusion, and recommendations

Discussion of the results of research question 1

The results related to the first question indicated that HOTS were represented by 70% of the total representation, while HOTS were only represented by 30%. This indicates that *English for Palestine 11* activities and exercises prioritize recall, comprehension, and application over critical and problem-solving skills. This result coincides with the findings of Fitriani and Kirana (2022), Laila and Fitriyah (2022), Gergera and Tesmand (2023), Dallahseh (2024), Maryamah et al. (2024), Mahardhika et al. (2025), and Shabrina et al. (2025), who all found that LOTS were more frequent than HOTS in the textbooks they analyzed and that these textbooks emphasize basic low-level thinking skills over critical thinking skills.

Discussion of the results of research question 2

The findings related to the second question revealed that the application skill had the highest frequency among the LOTS, while knowledge had the lowest frequency. This shows that *English for Palestine 11* activities emphasize the middle-level skills over the basic recall skills. This finding disagrees with Fitriani and Kirana (2022), who found that application was less regularly represented than knowledge and comprehension.

Discussion of the results of research question 3

The findings of the third question indicated that analysis had the highest frequency, while synthesis had the lowest frequency (3.4%). This shows that synthesis and creation skills in *English for Palestine 11* were ignored in favor of the analysis (17.73%) and evaluation (8.72%). This finding agrees with the findings of Fitriani and Kirana (2022), Gergera and Tesmand (2023), and Dallasheh (2024). However, this finding contradicts the findings of Shabrina et al. (2025), who found that analysis had the lowest frequency, Keshta and Seif (2013), and Dweikat and Abu Hasan (2023), who found that evaluation had the lowest frequency.

Conclusion

This study aimed to investigate the representation of LOTs and HOTs in the activities and exercises in *English for Palestine 11*. Findings indicated that HOTs and LOTs are not represented equally in the textbook since LOTs accounted for two-thirds of the overall cognitive skills that are accommodated in the textbook. This shows that critical thinking skills are deemphasized in comparison with LOTs. The overemphasis on recall and comprehension skills could be associated with students' poor critical thinking skills and low language proficiency. Additionally, results of content analysis revealed that the three LOTs are not equally represented, with a predominance of the application skill. Similarly, the representation of synthesis is minimized in the textbook, which has a detrimental effect on the students' creative ability.

Recommendations

In light of the findings, the researcher recommended the following:

1. EFL teachers should use supplementary activities and exercises that incorporate higher-order thinking skills to overcome the lack of HOTs in *English for Palestine 11*.
2. Curriculum designers should review *English for Palestine 11* for more balanced integration of critical thinking skills.
3. Further studies should be conducted to examine the impact of the representation of cognitive skills in textbook activities on students' achievement in EFL.

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