



COMPARATIVE ANALYSIS OF THE SIGNIFICANCE OF BLOOM'S TAXONOMY IN IELTS EXAMS (COMPARATIVE ANALYSIS OF LISTENING, READING, WRITING, SPEAKING)

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Abstract

In this article, we will explore the relationship between cognitive thinking and performance on the IELTS exam, with a particular focus on the application of Bloom's Taxonomy, a well-established framework for understanding different levels of cognitive engagement. By understanding the connection between cognitive thinking and IELTS performance, we can better understand the holistic nature of language assessment and provide valuable insights for both test-takers and educators.

Keywords: Assessment, IELTS, Bloom’s taxonomy, remember, understand, apply, analyze, evaluate, and create, cognitive thinking, english proficiency, fluency, coherence, cohesion, lexical resource.

Introduction

Language testing involves considerations of measuring language knowledge and designing appropriate procedures for measuring this knowledge [1]. Furthermore, language tests also involve test takers’ cognitive processing since it is responsible for formulating and structuring data for conceptual and procedural understandings needed for successful completion of assessment tasks.

One of the most widely recognized language testing systems, IELTS (International English Language Testing System) measures English language proficiency. Beyond evaluating linguistic competence, the IELTS exam also assesses various levels of cognitive engagement. This connection can be examined through frameworks such as Bloom’s Taxonomy, which helps categorize and understand different levels of cognitive engagement involved in the IELTS exam. Bloom’s Taxonomy is a framework for ordering thinking skills from the simplest to the most complex, first developed by Benjamin Bloom in 1956 [2]. The revised version by Anderson and Krathwohl (2001) lists six levels: Remember, Understand, Apply, Analyze, Evaluate, and Create and adds four knowledge types: factual, conceptual, procedural, and metacognitive [2].

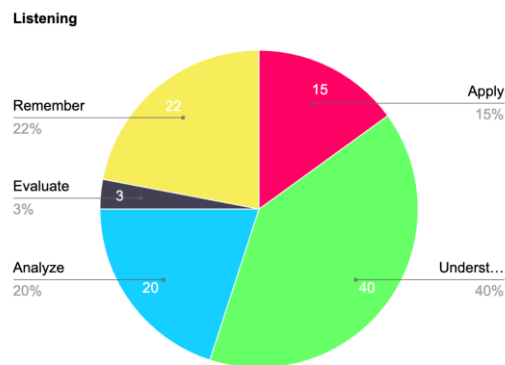
In language testing, Bloom’s Taxonomy helps to find what kinds of skills needed, whether in academic tests or any learning process. It shows whether tasks focus only on basic comprehension, lower order thinking skills or also involve higher-order cognitive demands.

Research Methodology

Listening Section

IELTS Listening Test often involves the lower levels of the framework — Remembering and Understanding. These are the abilities candidates use to recognise and recall information, and to make sense of what they listen. Higher-level skills like Analyzing, Evaluating, and Creating are less involved, because the test is about understanding spoken English, not creating new ideas.

Pie chart analysis shows that Understanding takes up the largest share of the mental work in the test, followed by Remembering, with only a small portion going to Applying or Analyzing. Each part of the listening paper highlights this pattern in a slightly different way.



Part 1 – Gap-Filling (Forms, Notes, Tables)

In the first part, candidates usually fill in missing words in a form or table. Here, candidates mainly listen for specific details, understand their meaning, and write them down. There's no need to break ideas apart or combine them in new ways — it's about catching the right information and recording it. That's why this section is dominated by Understanding and Remembering, 45%, 25% respectively. Moreover, Analyzing and Applying also take a little part, each taking 15%.

Part 2 – Maps, Plans, and Diagrams

In the second part, you often hear someone giving directions or describing a place. Candidates are supposed to follow their words and match them to a visual layout, like a map or a floor plan. This still involves a lot of Understanding (35%), but also a touch of Remembering (30%) and Applying (20%), because candidates will be taking what they understand and putting it into the right place on the page. On top of that, Analyzing takes little part of that, 15%.

Part 3 – Educational Conversations

This part usually has a group of speakers discussing an academic topic. The questions might ask test takers to match people with opinions or pick the right option from a list. They still need strong Applying (30%) and Understanding (25%) skills, but there's also more Analyzing (20%) here — sometimes they have to compare speakers' points of view or tell the difference between similar ideas. Other than that, Creating (5%), Evaluating (10%) and Remembering (10%) are also needed during this part.

Part 4 – Academic Lecture

The final part is often a university-style lecture. A summary or fill in sentences should be completed. The focus is still on Understanding the main ideas and details (40%), there's also a need for Analyzing (20) — working out how the points are connected. Remembering plays a role too (20%), because candidates often have to hold information in their mind until the gap in the question appears. And the last thing that is needed to use is Applying (20%) as they should apply what they understand, analyze and remember.

1. Reading section

The IELTS Reading section tests a variety of skills , from finding specific details to understanding complex ideas in different types of texts . These texts can be factual, analytical , or argumentative , and the questions include tasks such as multiple choice , matching headings , completing summaries , and finding information [2]. Each task type requires different levels of thinking.

The following evaluation of the IELTS Reading section is based on Bloom's Taxonomy, which categorizes thinking skills from basic recall to higher-order analysis.

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Reading Section – Passage 1

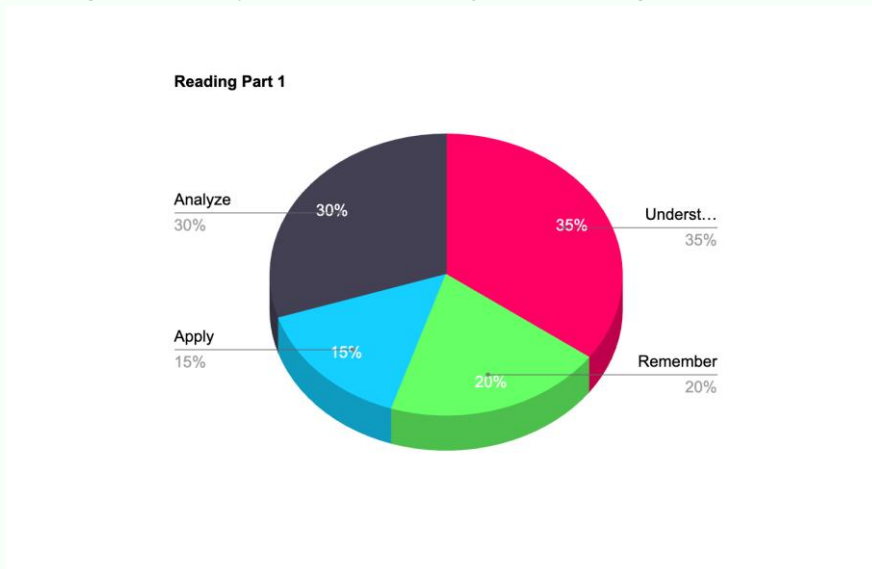
In **Passage 1**, most of the work - **35%** - is about **understanding**. These questions focus on making sense of information, following the writer's ideas, and working out what details mean in context.

The next biggest part is **analyzing** at **30%**. Here, you need to break the text into parts, see how the ideas connect, and decide which details matter most.

Remembering takes up **20%**. These are the more direct questions, where you find and recall specific facts from the passage.

Finally, **applying** makes up **15%**. This is where you use information from the passage in a new way - for example, matching it to a situation or using it to answer a slightly different type of question.

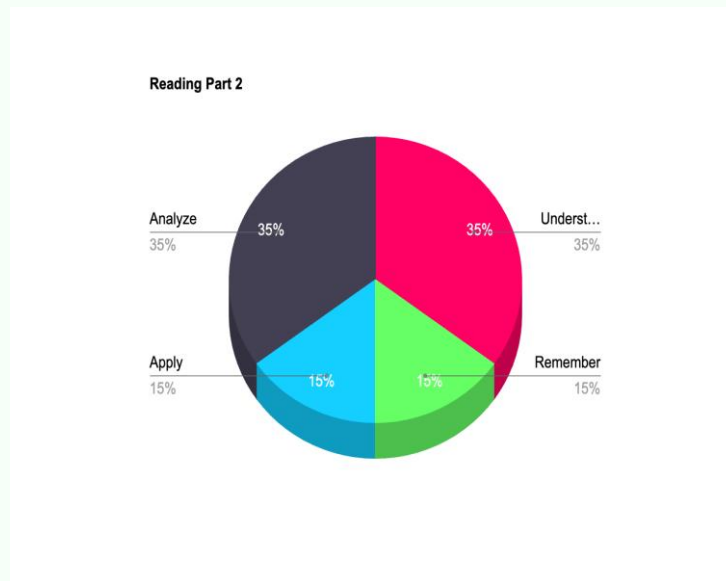
Overall, Passage 1 mixes both simple and more complex thinking, with a focus on understanding and analysis rather than just looking for answers.



Passage 2

In Reading Part 2, the largest portions of Bloom's Taxonomy are Analyzing and Understanding, each constituting 35% of the tasks. Analyzing shows that a significant portion of the questions require examining details, identifying patterns, and breaking down information. Equal to Analyzing, Understanding suggests that comprehension skills are also emphasized.

In contrast, Applying and Remembering each account for only 15% of the tasks, showing that recalling facts play smaller role. This balance demonstrates that the reading section prioritizes comprehension and analytical abilities over simple memorization.

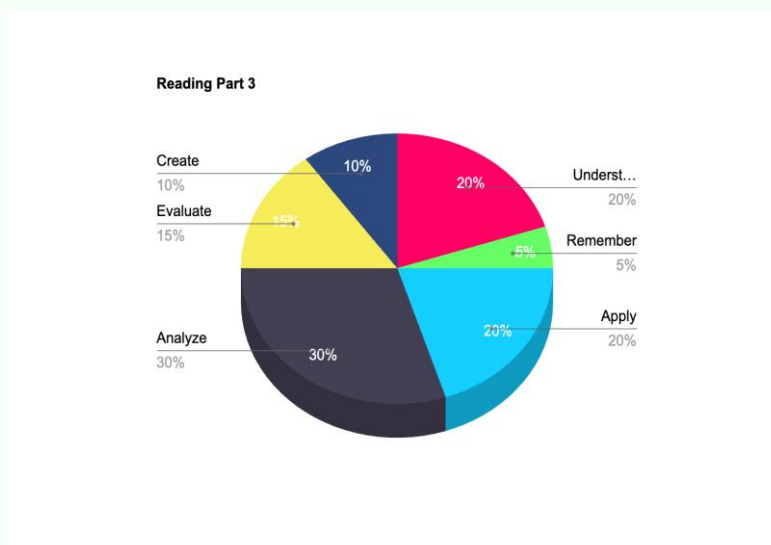


Passage 3

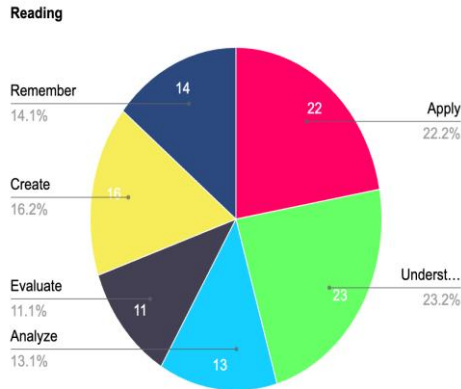
Reading Passage 3 focuses mostly on higher-level thinking. The biggest part, **30%**, is about **analysis** - breaking big ideas into smaller parts, spotting patterns, and connecting them.

Both **understanding** and **applying** skills take **20%** each, which means you need to read carefully and use the information to answer questions. **Evaluation** comes next at **15%**, asking you to judge opinions or compare ideas.

Creation is **10%**, where you put ideas together in a new way. The smallest share, **5%**, is **remembering**, so simply recalling facts is not very important here. In short, Passage 3 really tests your ability to think deeply and work with complex ideas.

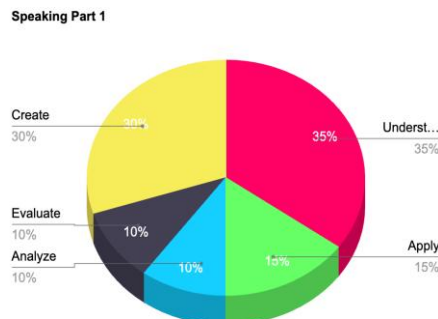


The overall IELTS Reading section relies most on analysis (35%) and understanding (31.7%), showing that deep comprehension and breaking down information are key skills. Remembering (15%) and applying knowledge (13.3%) also play notable roles, while evaluation (5%) is the least required.



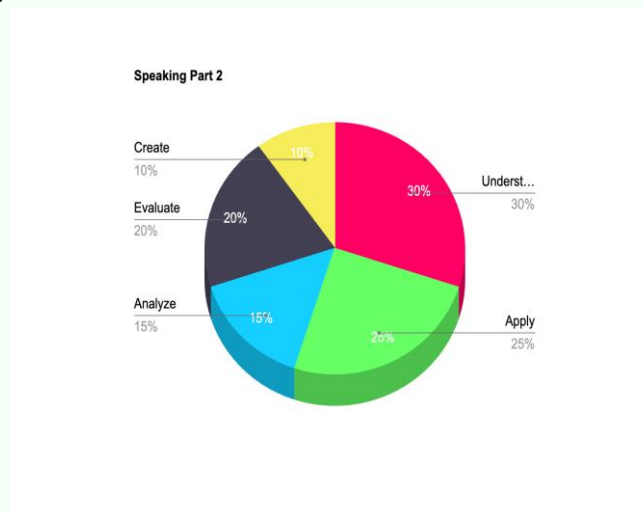
2. Reading section

The IELTS Speaking Test engages a broad range of cognitive processes as described in Bloom's Taxonomy, from basic understanding to higher-order thinking skills such as evaluation and creation. Speaking requires candidates to generate language in real time, organise ideas, and adapt to the examiner's prompts [11, 12]. The balance of these skills changes across the three parts of the test, as shown in the pie charts.



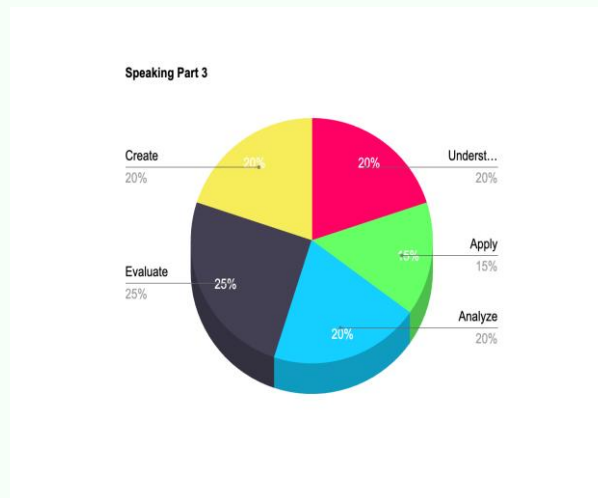
Part 1

In Part 1, candidates respond to personal and familiar questions. This stage mainly assesses **Fluency and Coherence** and **Pronunciation**, since examinees are expected to speak smoothly, use connected speech, and avoid long pauses. Understanding the question is crucial and accounts for the largest share of cognitive demand in this stage, at about 35%. This links directly to **Remembering** and **Understanding** in Bloom's framework [12]. The ability to create original sentences in real time also plays a notable role, but higher-order thinking remains limited as the emphasis is on clarity and relevance rather than deep analysis [13].



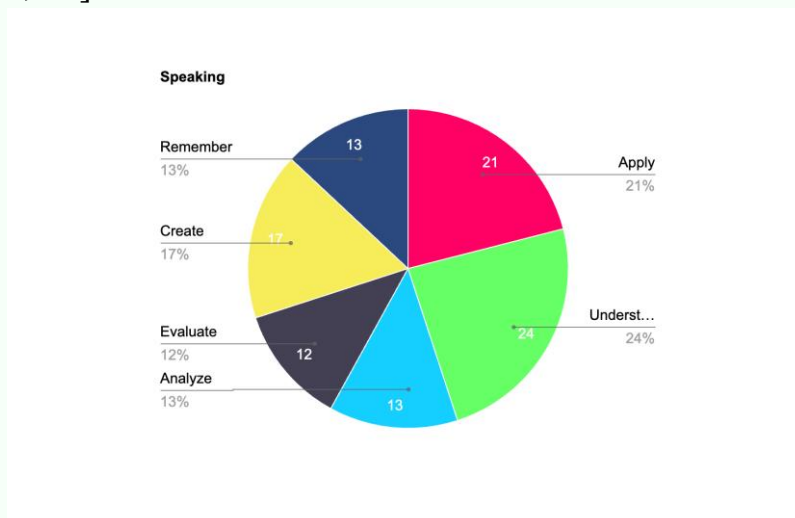
Part 2

In this part, candidates must speak for up to two minutes on a given topic, with stronger emphasis on **Lexical Resource** and **Grammatical Range & Accuracy**. Examiners look for precise vocabulary, well-linked ideas, and logical sequencing [13]. Compared to Part 1, **Applying** skills take on greater importance, at roughly a quarter of the cognitive load, as candidates adapt the cue card prompts into structured responses. This process requires selecting and evaluating relevant content, which draws on **Analyzing** and **Evaluating** [14]. Originality (**Creating**) is less emphasized here than in spontaneous conversation.



Part 3

Part 3 shifts to abstract and analytical discussion, making it the most demanding section for Fluency and Coherence and Lexical Resource. Here, Evaluating reaches its highest share (25%), as candidates compare perspectives, justify opinions, and develop balanced arguments [13]. This stage tests the ability to use complex grammar, precise vocabulary, and coherent reasoning, closely mirroring academic discourse, and strongly aligns with the upper tiers of Bloom's Taxonomy [12, 15].



3. Writing section

The IELTS Writing component evaluates candidates' ability to produce clear, coherent, and well-structured written responses under strict time constraints. It is divided into two tasks: Task 1, which requires describing, summarizing, or

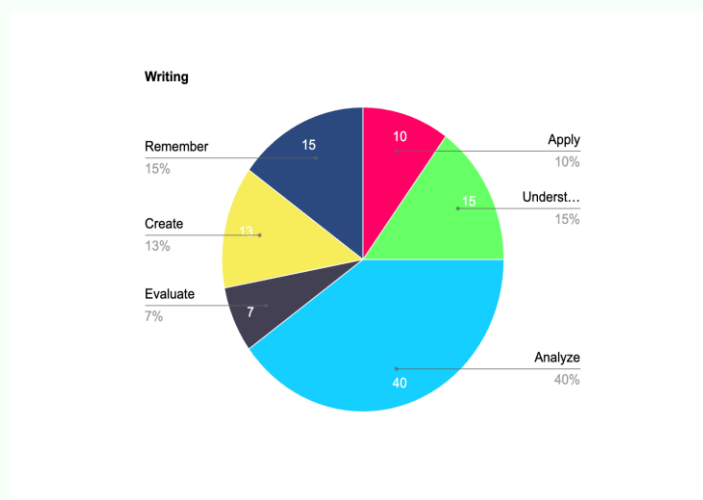
explaining visual data, and Task 2, which focuses on constructing an argument or discussing an issue. Assessment is based on four equally weighted band descriptors — Task Achievement/Response, Coherence and Cohesion, Lexical Resource, and Grammatical Range and Accuracy — which together provide a multifaceted measure of writing proficiency.

Writing Task 1 is considered easier compared to Writing Task 2. It requires strong analytical skills and understanding of task types. Each task type requires a different structure and analysis.

The data show that higher-order thinking skill (**Analyse**) gets the largest share among other Bloom's Taxonomy steps (40%). This is because task 1 involves identifying key trends, comparing sets of data and describing changes over a period of time. An example of it can be a line graph - one of the most common task types in Writing Task 1. The dominance of **analysis** in the distribution confirms that Writing Task 1 is not merely a descriptive exercise but an interpretive one.

Understanding (30%) represents the comprehension of the visual input and the task requirements. It is one of the 4 Band descriptors needed to get a higher band score.

Application (20%) involves using correct vocabulary, grammar, and cohesive devices in context. Among them all, Remembering (10) is considered the least emphasised, limited by using general descriptive structures or memorised phrases.



The pie chart for Writing Task 2 illustrates the relative emphasis placed on different cognitive processes according to Bloom's Taxonomy: Analyze (40%), Create (25%), Remember (20%), and Evaluate (15%)



Part 1

The largest portion, Analyze, reflects the need to break ideas into components, recognize relationships, and organize arguments logically — skills that directly influence Task Achievement through well-developed ideas and Coherence and Cohesion through clear sequencing. This corresponds with how Bloom’s Taxonomy supports stronger argumentation skills in writing by cultivating higher-order thinking strategies of analysis, synthesis, and evaluation [9].

Part 2

Create, which accounts for a quarter of the chart, involves synthesizing information into original responses, a process that draws heavily on Lexical Resource for precision and variety as well as Grammatical Range and Accuracy for the effective expression of complex ideas.

Part 3

Remember, while representing a lower-order cognitive skill, plays a vital role in retrieving relevant facts, examples, and terminology, thereby supporting Task Achievement and accurate language use.[10]

Part 4

Evaluate, though the smallest category, requires making judgments, weighing evidence, and considering counterarguments, which contribute to balanced discussions and strengthen the logical integrity assessed under Task Achievement and Coherence and Cohesion.

Overall, the distribution shows that 80% of the task’s cognitive demand lies in higher-order thinking — analyzing, creating, and evaluating — underscoring that high performance depends on critical reasoning, originality, and informed judgment, all built upon a foundation of remembered knowledge. This alignment between Bloom’s Taxonomy and the IELTS band descriptors highlights how Writing Task 2 rewards responses that are not only linguistically accurate but also intellectually engaging and structurally sound.

Discussion

This article explored the connection between IELTS performance and cognitive thinking through the framework of the Revised Bloom’s Taxonomy. The analysis

of different IELTS sections showed that while all levels of cognitive skills were represented, the distribution varied across the test. IELTS listening test items focused on Factual Knowledge, while IELTS reading test items clustered on Conceptual Knowledge to the largest extent [1]. IELTS writing tasks relied most on skills like analysing and creating, while speaking balanced understanding, applying, and evaluating across its three parts.

Lower-order thinking skills such as Understand and Apply were most frequent overall, highlighting the importance of comprehension and the practical use of information. However, higher-order skills like Analyze, Evaluate, and Create also played a key role, especially in the Reading and Writing sections, where test-takers are challenged to interpret, assess, and produce ideas. These findings indicate that the IELTS exam assesses not only language proficiency but also a broad range of cognitive skills. For test-takers, recognizing which skills are most prominent can support more focused and effective preparation. For educators and researchers, the results offer valuable insight into how high-stakes language assessments reflect cognitive learning objectives, providing a foundation for refining teaching strategies and developing more targeted test-preparation approaches.

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