THE ANALYSIS OF COGNITIVE LEVEL OF GRAMMAR EXERCISES IN THE TEXTBOOK ENTITLED "INTERCHANGE 1" FOR GRADE 3rd

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Abstract

This study examined the cognitive level of grammar exercises in the 'Interchange 1' textbook for third-year English language learners. Recognising the importance of grammar for clear communication as well as the challenges in second language acquisition, this study emphasises the need for well-designed exercises that match students' abilities. The research highlights the distribution of recommended difficulty levels and their alignment with Bloom's cognitive domains. Motivated by teachers' experiences with different difficulty levels and students' backgrounds, this study aims to analyse grammar exercises in 'Interchange 1' and students' cognitive levels. This study used qualitative research method with content analysis approach. Data was collected using documentation technique. The results of this study indicate that the distribution of higher-order thinking skills (HOTS) and lower-order thinking skills (LOTS) questions need to be aligned with established standards. Achieving a balanced composition of practice questions that cover all cognitive levels is crucial, as this directly impacts students' overall competence. Therefore, teachers and textbook writers need to pay attention to the difficulty level of grammar practice questions to provide learning experiences that are appropriate for grade 3 students.
Keywords: *LOTS, MOTS, HOTS, grammar analysis, grammar exercises, cognitive level*

1. INTRODUCTION

Grammar, in the context of language teaching and learning, encompasses more than just the rules and structures of language; it plays a crucial role in how we communicate complex ideas, emotions and intentions. Grammar in the "narrow sense" refers specifically to syntax and morphology, which are crucial for constructing meaningful sentences and for the coherence of language as a whole (Derewianka, 1998; Swan, M. 2005). The importance of grammar lies in its ability to provide meaning, and without it, meaning would not exist (Emilia, 2014). For example, grammar enables the specification of cause-effect relationships, modality (e.g., question, negation), and reference to specific entities, thus enabling precise and nuanced communication (Swan, M. 2011).

In addition, grammatical complexity is likened to a system in which groups of words can be further categorised, creating layers of meaning and function. This system not only categorises word classes and applies ordering conventions, but also incorporates diverse meanings, such as time relationships, number distinctions, and social relationships, making grammar a versatile tool for expressing a broad spectrum of concepts (Swan, M. 2011). Despite its complexity, grammar acquisition, especially in a second language, remains a challenging and somewhat elusive goal. Expectations for learners to achieve native speaker competence are considered unrealistic, given the inherent difficulties of language learning and the limited time available for mastery. A more realistic approach recognises the limitations and celebrates partial success in language acquisition, advocating a focus on practical communication skills rather than native-like fluency (Butzkamm, W., & Caldwell, J. (2009).

In short, grammar is central to the structure and function of language, which enables detailed and complex communication. Grammar is considered the foundation of language skills such as listening, speaking, reading, and writing (Widodo, 2006). Its teaching and learning is crucial in language education, which requires a balance between the aspirational goals of linguistic theory and the pragmatic realities of language use and acquisition (Swan, M. 2011). Therefore, to support the learning and teaching process, textbooks and exercises are needed so that the complexity of grammar learning can be understood well in order to achieve learning objectives.

To achieve learning objectives through exercises, teachers should use appropriate tests with difficulty levels that match students' abilities. To achieve a balanced distribution of effective questions, the ratio of difficulty levels should be adjusted to the proportion of 30:40:30. Specifically, this ratio signifies 30% for low difficulty, 40% for medium difficulty, and 30% for high difficulty, as recommended by Sudjana (1990). The evaluation process is in accordance with Bloom's cognitive aspects of learning, which include remembering, understanding, applying, analysing, evaluating and creating. Related research studies provide insights into

the application of higher order thinking skills (HOTS) in English textbooks and cognitive domains. These studies emphasise the importance of adapting teaching materials to suit students' level of cognitive development.

Based on an initial interview with a grade 3 primary school teacher who uses the Interchange 1 textbook. The teacher mentioned some difficulties in teaching grammar to students because there are different levels of grammar in the book and other problems due to students' different backgrounds. Therefore, this study will analyse the difficulty level of grammar skills in the Interchange 1 book for grade 3. The researcher formulated the research questions into two parts: how to analyse the students' cognitive level.

2. LITERATURE REVIEW

A. Grammar

Grammar is one of the essential components of language. Grammar describes how language works to make meaning within a particular culture (Derewianka, 1998, p. 1). Grammar plays a vital role in making meaning. Grammar makes meaning, and without Grammar, the meanings do not exist (Emilia, 2014, p. 23). Therefore, Grammar is the key to language; it is the level of "words in structure" since that is where the meanings are organized, processed, and packaged in a form that can be turned into an expression of some kind (Halliday, 1985b, p.12). Therefore, the use of language will not be separated from Grammar.

When we talk about learning Grammar in general, we usually refer to the need to develop knowledge of words in their correct forms (word grammar) are put together to create meaningful sentences (sentence grammar) and how sentences are organized to form coherence texts (text grammar) (Puchta, 2018). However, different with young learners will quickly get bored because it is difficult to determine the correct Grammar. Young language learners learn a foreign language and do so for 6 or 7 years in formal school. Cameron, 2001, defines young learners as "those between the ages of five and twelve."According to Scott & Ytreberg (1990), young learners are "students between the ages of five and ten or eleven."

In grammar acquisition for young learners, we must develop knowledge by adding references related to grammar learning that are easy for young learners to understand. We need to look at Grammar from the perspective of the learner, bearing in mind that children tend to 'grow the grammar' (Nunan, 2005, p. 45 as cited in Putcha, 2018), not learn it as a formal system. By learning explicitly, learners will be interested in understanding Grammar because it is essential to learn it early. Grammar teaching affects language skills. Therefore, teachers must develop their students' skills early on (Garret, 2003).

In the process of learning Grammar, activities considered boring may not work for young learners. To adjust it, teachers should pay attention to the characteristics of each student and then the material according to their needs,

and the textbook used should look more exciting and be learned implicitly. Brown (2007) defines *implicit learning* as learning without conscious attention or awareness. Another essential issue in teaching Grammar to young learners is its unique characteristics compared to people of other age levels. Moon (2000) states that young learners will learn if they are engaged in fun yet meaningful activities.

Therefore, based on the theories mentioned, Grammar for young learners does not have to be presented formally but can be made more creative after knowing the weaknesses of the textbook used and the characteristics of young learners. By introducing language at an early stage, it will affect language production. In addition, by learning Grammar, they will know how language works in expressing meaning. That way, they will get used to organizing the language they produce, processing it, and minimizing grammatical errors early on.

B. Grammar Development

The development of grammar in English involves individuals acquiring and mastering the grammatical structures of the language. This process includes grasping grammatical rules, using vocabulary, constructing sentences, and recognizing patterns and conventions necessary for effective communication (Brooks & Kempe, 2012).

Experts have observed multiple facets of grammar development. For instance, Patricia J. Brooks and Vera Kempe (2012), in their book "Language Acquisition and Development: Biological and Cultural Influences," note that language acquisition begins in infancy and extends into young adulthood. They highlight the crucial role of language exposure in communicative contexts, which helps children naturally understand and use grammatical structures.

In psycholinguistic theory, as explored by Thomas Scovel (2005) in "Psycholinguistics: Introduction and Applications," the link between grammar development and cognitive processes, as well as brain development, is underscored. This theory indicates that the ability to comprehend and utilize grammar progresses alongside cognitive development.

Noam Chomsky (1957), in works such as "Syntactic Structures" and "Aspects of the Theory of Syntax," proposed the Theory of Generative Grammar. According to Chomsky, the grammatical structures of English can be understood through generative rules that govern the formation of sentences and phrases, focusing on the formal aspects of grammar.

On the other hand, constructivist theory emphasizes the active role of learners in building their understanding of language. According to Sigmund Tobias and Thomas M. Duffy (2009) in "Constructivist Instruction: Success or Failure?", students actively construct their grammatical knowledge through interactions with their environment and structured learning experiences.

By considering these diverse perspectives, we can comprehend that the development of English grammar is a complex process influenced by biological, cognitive, social, and environmental factors. Therefore, employing a holistic and varied approach to language learning can support the optimal development of grammar in individuals. Implementing these theories in English language instruction can help teachers and students develop effective strategies for enhancing grammar skills.

C. Stages of Grammar Development

The development of grammar in English comprises several stages that describe how individuals acquire and master grammatical structures. Each stage represents a crucial part of the language learning journey, and the path to full grammatical mastery can differ between individuals. The stages of grammar development include:

a. Pre-linguistic Stage

In this initial stage, children are still grasping the general concept of language and have not yet formed sentences according to grammatical rules. They might use single words or simple phrases to express meaning, often accompanied by body language such as gestures or facial expressions (Clark, 1993).

b. Early Grammar Usage

This stage sees children beginning to understand and use basic grammatical elements, like pronouns, verbs, and simple sentence structures. Although they might make grammatical errors, they start to notice and correct these mistakes (Farrar, 2002).

c. Advancement to More Complex Grammar

In this stage, children begin employing more complex grammatical forms, including various sentence types and phrases. They also start understanding more advanced grammatical rules, such as tense usage and longer sentence structures (Tomasello, 2003).

d. Near-Perfect Grammar Mastery

This stage is characterized by a nearly complete mastery of grammar. Children can produce grammatically correct sentences and thoroughly understand different grammatical aspects. They can use grammar accurately and fluently in diverse communicative contexts (Bowerman, 1982).

D. Task Analysis

According to cognitive theory, task analysis is an approach that breaks down complex tasks into smaller steps or components (Anderson et al., 2001). This approach is used to understand the cognitive processes of solving a task or problem. In the context of students' grammar learning, task analysis can help understand the steps or cognitive skills that students need to properly

understand and apply grammar rules.

In the context of students' grammar, task analysis can help identify the key skills required for good grammar comprehension. Anderson (2001) presents the task analysis approach as part of his theory of learning and instruction. As for the specifics of student grammar in the book "INTERCHANGE 1", task analysis can involve identifying tasks or exercises designed to teach and test grammar comprehension at a certain level. It includes understanding grammar rules, applying those rules in sentence contexts, and the ability of students to recognize and correct grammatical errors.

Task analysis can help teachers understand how students interact with grammar materials, where errors are likely to arise, and where mastery of grammar skills can be improved. These learning materials can be designed to suit students' needs more effectively.

Based on Anderson's approach (Anderson, 2001), the steps of task analysis applied to students' grammar comprehension in INTERCHANGE 1 book are as follows:

a. Identify Basic Grammar Concepts: Understand basic concepts such as tenses, sentence types, or sentence structure rules.
b. Introduction to Grammar Rules: Break down grammar rules into more detailed steps, ensuring students understand the underlying conditions.
c. Application of Rules in Context: Applying grammar rules in the context of sentences and texts to understand their use in real situations.
d. Practice Filling in the Blanks: Engaging students in exercises that involve filling in the blank spots in sentences with the correct choice of words, requiring word selection that conforms to grammar rules.
e. Dot Filling Exercises: Engages students in exercises that involve filling in the blank spots in sentences with correct word choice, requiring word choice that conforms to grammar rules.
f. Complex Sentence Analysis: Analysing more complex sentences or texts to understand the use of grammar in more difficult contexts.
g. Assessment of Grammar Understanding: Involves formal or informal assessments to measure students' understanding of different aspects of grammar.

This task analysis allows teachers to design lessons that suit students' needs and gradually help them master grammar skills. Task analysis helps identify the key components that students need to master to understand grammar well.

E. Analysis of the Cognitive Process Dimension

The cognitive process dimension categories are intended to provide a comprehensive set of classifications for student cognitive processes included in the objectives. As shown in table 1 below:

Table 1. Taxonomy table (Anderson, et al., 2001)

Dimensions of knowledge	C1 Remember	C2 Understand	C3 Apply	C4 Analyze	C5 Evaluate	C6 Create
A. Factual Knowledge						
B. Conceptual Knowledge						
C. Procedural Knowledge						
D. Metacognitive Knowledge						

The spectrum of categories encompasses a range of cognitive processes aligned with the objectives outlined by Anderson et al. (2001). These processes start with the more common tasks associated with Remembering, progressing through Understanding and Applying, and extend to less frequently encountered processes like Analyzing, Evaluating, and Creating.

Remembering involves the execution or application of a procedure within a particular context. Analyzing entails breaking down material into its constituent parts and establishing connections among these parts and the overall structure or purpose. Evaluating requires making judgments based on specific criteria and standards. Lastly, Creating involves the synthesis of elements to form a new, cohesive whole or the generation of an original product.

Each of the six main categories is associated with two or more specific cognitive processes, totaling 19 processes, which are also described in verb form (see table 2). To distinguish specific cognitive processes from the six categories, they are embodied in gerund form, ending in *"-ing".* Therefore, *recognizing* and *recalling* are related to the domain of *remember*, while *interpreting*, *exemplifying*, *classifying*, *summarizing*, *inferring*, *comparing,* and *explaining* are related to the domain of *understand*; while *executing* and *implementing* are related to the domain of *apply*, and so on.

Table 2. Six-dimensional categories of cognitive processes and related cognitive processes (Anderson, et.al., 2001)

Process Categories	Cognitive Processes and Examples
1. Remember: Retrieve relevant knowledge from long-term memory.	
1.1 Recognizing	(e.g. recognizing dates of important events in US History)
1.2 Recalling	(e.g. Recall dates of important events in US history)
2. Understand: Construct meaning from instructional messages, including oral, written, and graphic communication.	
2.1 Interpreting	(e.g. Paraphrasing speeches and important documents)
2.2 Exemplifying	(e.g. Provide examples of various artistic painting styles)
2.3 Classifying	(e.g. Classify cases of mental disorders observed or described)
2.4 Summarizing	(e.g. Write a summary of the events shown on the videotape)
2.5 Inferencing	(e.g. In learning a foreign language, summarising grammatical principles from examples)
2.6 Comparing	(e.g. Comparing historical events with contemporary situations)
2.7 Explaining	(e.g. Explain the causes of important events of the eighth century in France)
3. Apply: Carry out or use a procedure in a specific situation.	
3.1 Executing	(e.g. Dividing one integer by another, both with multiple digits)
3.2 Implementing	(e.g. Determine in which situations Newton's second law is appropriate)

3. RESEARCH METHODOLOGY

Research design

This study delves into the world of language exercises by employing a content analysis approach. The researcher meticulously examines the contents of the

4. Analyze: Break down the material into its constituent parts and determine how the parts relate to each other and the overall structure or purpose.	
4.1 Differentiating	(e.g. Distinguish between relevant and irrelevant numbers in maths word problems)
4.2 Organizing	(e.g. Organise evidence in historical descriptions into evidence for and against a particular historical explanation)
4.3 Attributing	(e.g. Determine the point of view of the essayist concerning his/her political perspective)
5. Evaluate: Make judgments based on criteria and standards.	
5.1 Checking	(e.g. Determine whether the scientist's conclusion follows from the observed data)
5.2 Critiquing	(e.g. Assess which of two methods is the best way to solve a given problem)
6. Create: Put elements together to form a coherent or functional whole; rearrange elements into new patterns or structures.	
6.1 Generating	(e.g. Generate hypotheses to account for observed phenomena)
6.2 Planning	(e.g. Planning a research paper on a specific historical topic)
6.3 Producing	(e.g. establishing habitats for specific species for specific purposes)

Interchange 1 textbook, specifically focusing on the grammar exercises. Content analysis, as defined by Fraenkel 2012; Ary et al. 2010, is a research method that scrutinizes written or visual materials to identify specific characteristics. This method can be applied to a wide range of materials, including textbooks, newspapers, web pages, speeches, television programs, advertisements, musical compositions, songs, political speeches, and various other forms of documentation.

The researcher meticulously examines the cognitive processes involved in the grammar exercises and categorizes them according to their level of difficulty within the Interchange 1 English textbook published by Cambridge Press.

Data Collection

Documentation serves as the primary means of data collection in this study. This method involves investigating written materials such as records, transcripts, books, magazines, and newspapers (Arikunto, 2000; Bowen, 2009). The researcher utilizes a single document: the Interchange 1 textbook published by Cambridge Press. A checklist, a list of data variables to be collected (Arikunto, 2006), serves as the instrument for documentation. The researcher constructs this checklist based on Anderson's Taxonomy for the cognitive domain. The checklist is organized into a table with eight columns.

Data Analysis

To analyze the collected data, the researcher employs a technique proposed by Miles & Huberman (2014). This technique, known as the interactive mode, comprises three phases of activity: data reduction, data display, and conclusion drawing or verification. The researcher meticulously categorizes each exercise into one of the six levels of the revised Bloom's Taxonomy: C1, C2, C3, C4, C5, and C6. This process involves transforming the reading exercise questions from the Lower-order Thinking Skills (LOTS) category to the Higher-order Thinking Skills (HOTS) category found in the Interchange 1 English textbook published by Cambridge Press.

In the data display phase, the researcher presents the findings, including the percentage of each cognitive level of the Revised Bloom's Taxonomy represented in the exercise questions of the Interchange 1 textbook published by Cambridge Press. To analyze the data, the researcher employs Bloom's (1965) cognitive level table, which has been revised by Benjamin Samuel Bloom et al. (2001). This table is used to evaluate the cognitive levels of the exercises.

The formula used to calculate the percentage is:

$$X = (F / N) \times 100\%$$

X = the percentage of exercises in a particular level
F = the frequency of exercises in that level
N = the total number of exercises from all levels

(Naoza, Lio, A., & Nggawu, L. O. (2022).

Finally, the researcher draws conclusions based on the research questions and the analyzed data.

4. FINDINGS

The table below illustrates the cognitive levels of the grammar exercises in the Interchange 1 textbook:

Table 1 Numbers and percentage of items according to Revised Bloom's Taxonomy

No.	Cognitive Level	Taxonomy Bloom	Chapter	Number of Item	Percentage
1.	Lower Order Thinking Skill (LOTS	Remembering (C1)	I, IV, V, VI, VII	7	21, 88%
		Understanding (C2)	II, VIII, IX, XI, XIV	6	18,75 %
2.	Middle Order Thinking Skill (MOTS)	Application (C3)	II	1	3,12%
	Higher Order Thinking Skill (HOTS)	Analyzing (C4)	III, VI	2	6,25%
3.		Evaluating (C5)	III, IX	2	6,25%
		Creating (C6)	IV, V, VIII, X,XII, XIII,XIV, XV, XVI	14	43,75 %

The table depicts the outcomes of the cognitive assessment carried out in the "Interchange 1 textbook." Through this evaluation, the researcher can classify the exercises of lower-order thinking skills (LOTS), middle-order thinking skills (MOTS), or high-order thinking skills (HOTS). To achieve a well-balanced distribution of effective questions, it is anticipated that the difficulty ratio should

align with the proportions of 30:40:30. Specifically, this ratio signifies 30% for low-level difficulty, 40% for medium-level difficulty, and 30% for high-level difficulty, as recommended by Sudjana (1990).

However, the table contradicts this standard by highlighting the significant presence of Creating (C6). Creating (C6) accounts for 43.75%, and Analyzing & Evaluating accounts for 6.25%, which is classified into High Order Thinking Skill (HOTS), which accounts for 43.75%. Furthermore, Remembering (C1) accounts for 21.88%, and Understanding (C2) accounts for 18.75%, which is categorized as Lower Order Thinking Skill (LOTS). Finally, Apply (C3) accounts for 3.12%, categorized into Medium Order Thinking Skill (MOTS). The results of this study indicate an imbalance in the distribution of LOTS, MOTS, and HOTS so that they do not meet the established standards. It emphasizes the importance of a balanced composition of practice questions that cover all cognitive levels, because it directly affects student competence (Naoza et al., 2022).

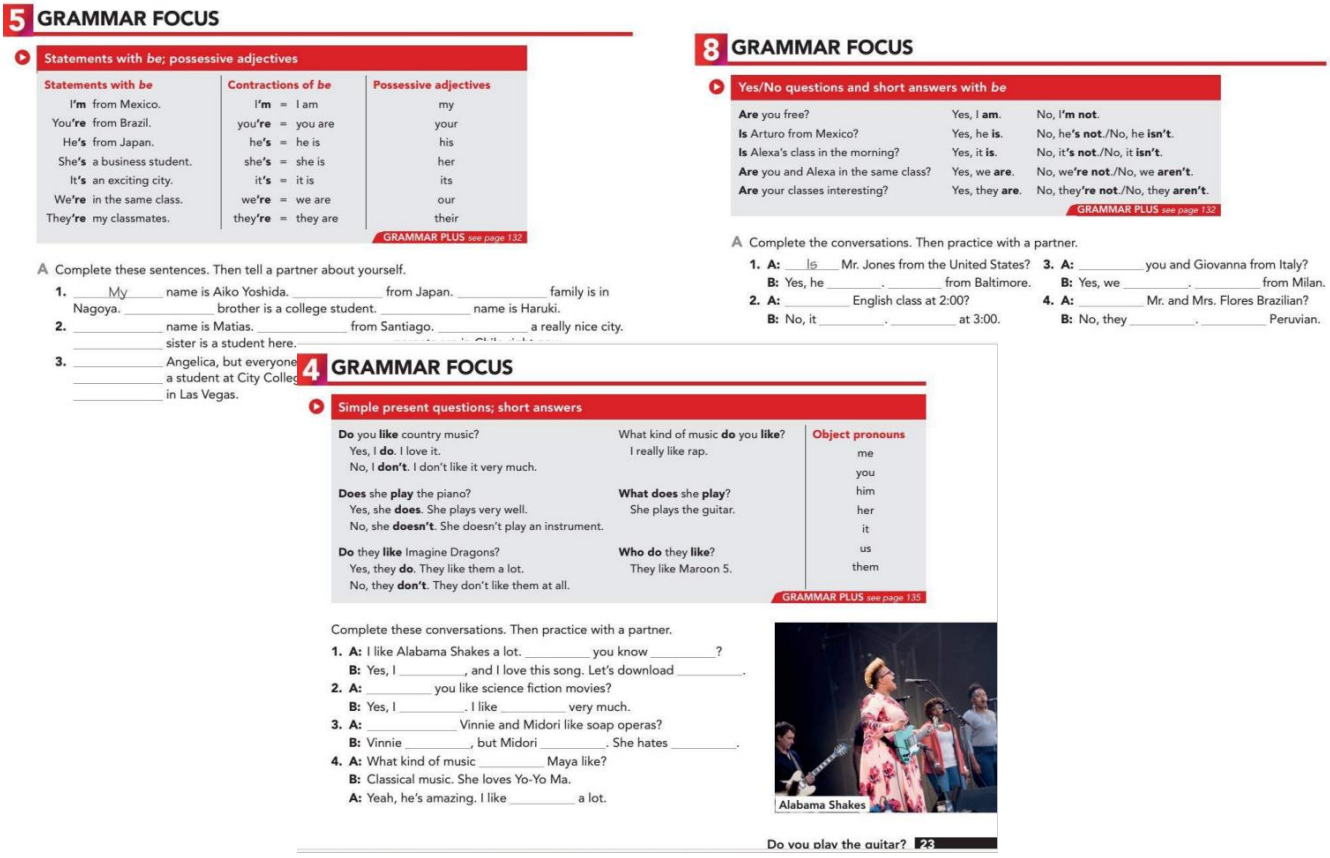
5. DISCUSSION

The Cognitive Level of Grammar Exercises refers to the cognitive level or level of thinking required to complete grammar exercises in learning. These cognitive levels include various types of thinking skills, starting from simple to complex levels. In particular, Grammar Exercises are cognitive levels of thinking skills. The various exercises designed in this book aim to improve students' understanding of grammar rules in English. This section focuses on the cognitive analysis of grammar exercises in the Interchange 1 English book. In addition, the diversity of materials in this book presents various types of materials, such as several tenses in grammar, dialogs, and exercises that focus on various linguistic aspects.

The "Interchange 1" textbook is generally recognized for its communicative-based approach that encourages students to interact in English in meaningful contexts. The book provides learning experiences that are practical and applicable to everyday life. In addition, the concept of "Cognitive Level" in the grammar exercises refers to the level of sophistication or complexity of thinking required to complete the exercises. It is closely related to the cognitive taxonomy developed by Bloom et al. (2001b). This taxonomy classifies cognitive levels into six levels, which progressively increase from the simplest to the most complex. It starts with remembering, understanding, applying, evaluating, analyzing, and creating (Anderson, 2001). These levels involve thinking ranging from basic to high-level. In grammar exercises, determining the Cognitive Levels can help design exercises that match students' understanding and skills, as the researcher found in the INTERCHANGE 1 text.

Based on the analysis of grammar exercises contained in the Interchange 1 book, it is divided into three cognitive levels, namely Lower Order Thinking Skill (LOTS), Medium Order Thinking Skill (MOTS), and High Order Thinking Skill (HOTS). In the LOTS section, there are 13 grammar exercises, namely in chapters

I, II, IV, V, VI, VII, VIII, IX, XI, and XIV. Grammar exercises in Chapters I, IV, V, VI, and VII include "*Complete these sentences using Statements with be: possessive adjectives." "Complete the conversations using Yes/ No questions and short answers with be.". "Complete these conversations using Simple present questions; short answers." "Complete these phone conversations using the present continuous," "Complete these questions using how; short answers." "Complete these conversations using simple past," and "Past of be. Complete these conversations.*".



5 GRAMMAR FOCUS

Statements with *be*; possessive adjectives

Statements with *be*	Contractions of *be*	Possessive adjectives
I'm from Mexico.	I'm = I am	my
You're from Brazil.	you're = you are	your
He's from Japan.	he's = he is	his
She's a business student.	she's = she is	her
It's an exciting city.	it's = it is	its
We're in the same class.	we're = we are	our
They're my classmates.	they're = they are	their

GRAMMAR PLUS see page 132

A Complete these sentences. Then tell a partner about yourself.

1. My name is Aiko Yoshida. _____ from Japan. _____ family is in Nagoya. _____ brother is a college student. _____ name is Haruki.
2. _____ name is Matias. _____ from Santiago. _____ a really nice city. _____ sister is a student here.
3. _____ Angelica, but everyone _____ a student at City Colleg _____ in Las Vegas.

8 GRAMMAR FOCUS

Yes/No questions and short answers with *be*

Are you free?	Yes, I **am**.	No, I'**m not**.
Is Arturo from Mexico?	Yes, he **is**.	No, he'**s not**./No, he **isn't**.
Is Alexa's class in the morning?	Yes, it **is**.	No, it'**s not**./No, it **isn't**.
Are you and Alexa in the same class?	Yes, we **are**.	No, we'**re not**./No, we **aren't**.
Are your classes interesting?	Yes, they **are**.	No, they'**re not**./No, they **aren't**.

GRAMMAR PLUS see page 132

A Complete the conversations. Then practice with a partner.

1. **A:** ___Is___ Mr. Jones from the United States?
   B: Yes, he _____. _____ from Baltimore.
2. **A:** _____ English class at 2:00?
   B: No, it _____. _____ at 3:00.
3. **A:** _____ you and Giovanna from Italy?
   B: Yes, we _____. _____ from Milan.
4. **A:** _____ Mr. and Mrs. Flores Brazilian?
   B: No, they _____. _____ Peruvian.

4 GRAMMAR FOCUS

Simple present questions; short answers

Do you **like** country music? Yes, I **do**. I love it. No, I **don't**. I don't like it very much.	What kind of music **do** you **like**? I really like rap.	**Object pronouns**
Does she **play** the piano? Yes, she **does**. She plays very well. No, she **doesn't**. She doesn't play an instrument.	**What does** she **play**? She plays the guitar.	me, you, him, her, it, us, them
Do they **like** Imagine Dragons? Yes, they **do**. They like them a lot. No, they **don't**. They don't like them at all.	**Who do** they **like**? They like Maroon 5.	

GRAMMAR PLUS see page 135

Complete these conversations. Then practice with a partner.

1. **A:** I like Alabama Shakes a lot. _____ you know _____?
   B: Yes, I _____, and I love this song. Let's download _____.
2. **A:** _____ you like science fiction movies?
   B: Yes, I _____. I like _____ very much.
3. **A:** _____ Vinnie and Midori like soap operas?
   B: Vinnie _____, but Midori _____. She hates _____.
4. **A:** What kind of music _____ Maya like?
   B: Classical music. She loves Yo-Yo Ma.
   A: Yeah, he's amazing. I like _____ a lot.

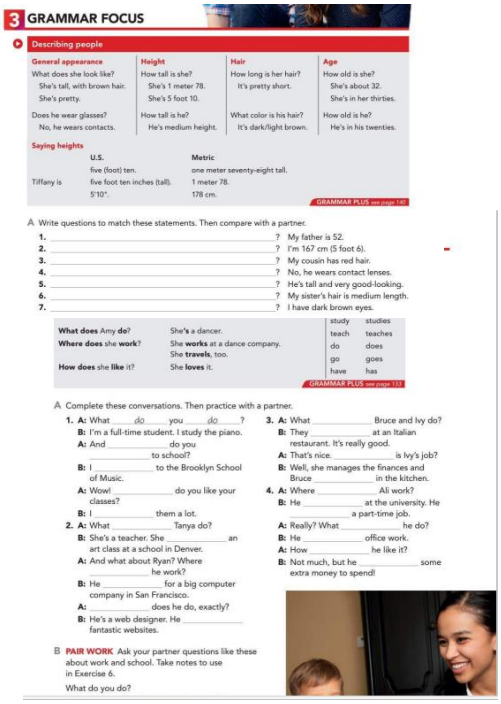
Alabama Shakes

Do you play the guitar? 23

The question belongs to category C1 (remembering). In the context of Bloom's Taxonomy, analysis or C1 (remembering) refers to the ability to recall or recover information that has been learned. It involves the process of recalling facts or concepts without the need to understand, apply, or evaluate the information (Bloom et al., 2001b). When we complete a conversation, C1 analysis occurs when we recall relevant information to answer a question or complete a sentence. It can include the use of already mastered vocabulary or basic information recalled from previous experiences.

Furthermore, in chapters II, VIII, IX, XI, and XIV, there are grammar exercises categorized into C2 (understand), namely, *"Simple present WH-questions and statements. Complete these conversations." "Look at the map below. Write the questions about these places using there is, there are, any, "Write questions to match these statements," "Match the questions with the answers using adverbs*

before adjectives," and "Write the questions to these answers."



3 GRAMMAR FOCUS

Describing people

General appearance	Height	Hair	Age
What does she look like? She's tall, with brown hair. She's pretty.	How tall is she? She's 1 meter 78. She's 5 foot 10.	How long is her hair? It's pretty short.	How old is she? She's about 32. She's in her thirties.
Does he wear glasses? No, he wears contacts.	How tall is he? He's medium height.	What color is his hair? It's dark/light brown.	How old is he? He's in his twenties.

Saying heights

	U.S.	Metric
Tiffany is	five (foot) ten. five foot ten inches (tall). 5'10".	one meter seventy-eight tall. 1 meter 78. 178 cm.

GRAMMAR PLUS see page 140

A Write questions to match these statements. Then compare with a partner.

1. _____? My father is 52.
2. _____? I'm 167 cm (5 foot 6).
3. _____? My cousin has red hair.
4. _____? No, he wears contact lenses.
5. _____? He's tall and very good-looking.
6. _____? My sister's hair is medium length.
7. _____? I have dark brown eyes.

What does Amy do?	She's a dancer.	study	studies
Where does she work?	She works at a dance company. She travels, too.	teach	teaches
How does she like it?	She loves it.	do	does
		go	goes
		have	has

GRAMMAR PLUS see page 133

A Complete these conversations. Then practice with a partner.

1. A: What ___do___ you ___do___?
   B: I'm a full-time student. I study the piano.
   A: And _____ do you _____ to school?
   B: I _____ to the Brooklyn School of Music.
   A: Wow! _____ do you like your classes?
   B: I _____ them a lot.
2. A: What _____ Tanya do?
   B: She's a teacher. She _____ an art class at a school in Denver.
   A: And what about Ryan? Where _____ he work?
   B: He _____ for a big computer company in San Francisco.
   A: _____ does he do, exactly?
   B: He's a web designer. He _____ fantastic websites.
3. A: What _____ Bruce and Ivy do?
   B: They _____ at an Italian restaurant. It's really good.
   A: That's nice. _____ is Ivy's job?
   B: Well, she manages the finances and Bruce _____ in the kitchen.
4. A: Where _____ Ali work?
   B: He _____ at the university. He _____ a part-time job.
   A: Really? What _____ he do?
   B: He _____ office work.
   A: How _____ he like it?
   B: Not much, but he _____ some extra money to spend!

B PAIR WORK Ask your partner questions like these about work and school. Take notes to use in Exercise 6.

What do you do?

3 GRAMMAR FOCUS

There is, there are; one, any, some

Is there a laundromat near here?
Yes, **there is**. There's **one** across from the shopping center.
No, **there isn't**, but there's **one** next to the library.

Are there any grocery stores around here?
Yes, **there are**. There are **some** nice stores on Pine Street.
No, **there aren't**, but there are **some** on Third Avenue.
No, **there aren't any** around here.

Prepositions
in
on
next to
near/close to
across from/opposite
in front of
in back of/behind
between
on the corner of

GRAMMAR PLUS see page 139

A Look at the map below. Write questions about these places.

an ATM · gas stations · coffee shops · grocery stores · a department store · a gym · an electronics store · hotels · Wi-Fi hot spots · a post office

Is there a gym around here?
Are there any restaurants on Main Street?

In the context of Bloom's Taxonomy, C2, or "understanding," is the second level of the six-level taxonomy that measures students' ability to comprehend given concepts or information. At this level, students are expected to be able to elaborate, explain, or interpret the information using their own words (Bloom et al., 2001b). When completing a conversation, C2 analysis occurs when we not only recall information (C1) but also understand its meaning and can use that understanding to complete a sentence or answer a question.

At the second cognitive level is MOTS. There is 1 chapter in this category, namely Chapter II, with cognitive level C3 (Apply). In Bloom's Taxonomy, the apply level indicates the student's ability to use learned knowledge or concepts in different or real situations (Bloom et al., 2001b). It refers to students' ability to apply their knowledge and skills in relevant contexts. Based on the results of the analysis, the questions presented in this chapter are about *time expressions*, and students are instructed to *"choose the correct word of time expressions."* Students are asked to choose the correct word or time expression according to the context of the sentence. In this case, students are asked to select and determine the correct time to complete the sentence correctly. This ability covers the understanding and application of time expressions in specific situations, which falls into the C3 category.

9 GRAMMAR FOCUS

Time expressions

I get up	**at** 7:00	**in** the morning	**on** weekdays.	**Expressing clock time**
I leave work	**early**	**in** the afternoon	**on** Thursdays.	7:00
I go to bed	**around** eleven	**in** the evening	**on** weeknights.	seven
I get home	**late**	**at** night	**on** weekends.	seven o'clock
I stay up	**until** midnight	**on** Fridays.		7:00 A.M. = 7:00 in the morning
I exercise	**before** noon	**on** Saturdays.		7:00 P.M. = 7:00 in the evening
I wake up	**after** noon	**on** Sundays.		

GRAMMAR PLUS see page 132

A Choose the correct word.

1. I get up **at** / **until** six **at** / **on** weekdays.
2. I have lunch **at** / **early** 11:30 **in** / **on** Mondays.
3. I have a snack **in** / **around** 10:00 **in** / **at** night.
4. **In** / **On** Fridays, I leave school **early** / **before**.
5. I stay up **before** / **until** 1:00 A.M. **in** / **on** weekends.
6. I sleep **around** / **until** noon **in** / **on** Sundays.
7. I have dinner **at** / **in** 7:00 **at** / **on** weeknights.
8. I read a book **after** / **before** I go to sleep.
9. **In** / **On** weekends, I go to bed **in** / **at** 1:00 A.M.
10. **In** / **On** Thursdays, I leave work **at** / **in** 9:00 P.M.
11. I work **late** / **until** on Wednesdays.
12. I study **around** / **until** 11:00 **after** / **early** dinner.

The third cognitive level is HOTS. There are three process dimensions at the HOTS level, namely C4 (analyzing) in chapters III, VI; C5 (evaluating) in chapters III and IX; and C6 (creating) in chapters IV, V, VIII, X, XII, XIII, XIV, XV, XVI. In Bloom's Taxonomy, the level of analysis (analyzing) indicates the student's ability to understand the structure and elements involved in the given information. It involves the ability to parse and identify relationships or patterns (Bloom et al., 2001b). Based on the analysis of C4 (analyzing) in chapter III, VI presents grammar exercises about *"demonstratives; one, ones."* In these grammar exercises, students are instructed to *complete conversations about the use of demonstratives*. This question is included in the C4 category, which assesses students' ability to use demonstrative pronouns appropriately. Then, in chapter VI, grammar exercises about adverbs of frequency are presented, and students are instructed to put the adverbs in the correct place. The ability to distinguish and place adverbs of frequency correctly in these sentences is a skill that belongs to the C4 category.

Furthermore, the dimension of cognitive process C5 (evaluating) is contained in chapters III, & IX. In Bloom's Taxonomy, the level of evaluation (evaluating) indicates the student's ability to make a judgment or evaluation of the effectiveness or value of an idea or information. It involves the ability to consider evidence, give reasons, and convey judgment critically (Bloom et al., 2001b). In chapter III, which presents grammar exercises on *preferences and comparison with adjectives*, students are instructed to *complete these conversations.* The ability to express preferences and make comparisons using adjectives is the focus of the C5 category. Chapter IX presents grammar exercises on *Modifiers with present participles and prepositions*, and students are instructed *to rewrite these statements using modifiers with participles or prepositions.* This skill is included in category C5, which assesses students' ability to use modifiers with participles and prepositions in the context of sentences.

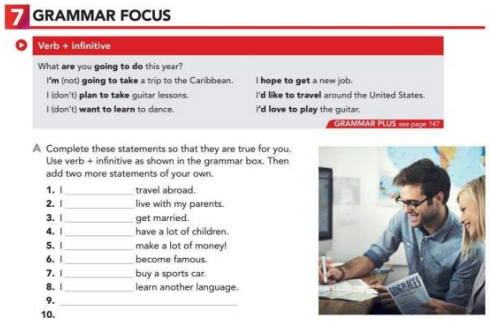
Finally, in the dimension of cognitive process, C6 (creating) is found in chapters IV, V, VIII, X, XII, XIII, XIV, XV, and XVI. In Bloom's Taxonomy, the level of creating shows the ability of students to create something new, whether it is in the form of writing, concepts, or works of art. It includes the ability to reorganize information to create original results (Bloom et al., 2001b). Based on the analysis in Chapter IV regarding *would; verb+ to+ verb in responding to the three invitations provided*. Category C6 assesses students' ability to formulate appropriate responses to invitations using correct language structures. Chapter V presents grammar exercises on *Quantifiers, "rewrite these sentences using quantifiers".* In this case, students are asked to use quantifiers to rewrite sentences, which requires knowledge of the concept of percentages and the ability to understand quantitative information. In this context, the category "C6" refers to the ability to produce or create something, in this case, creating new sentences by including quantifiers.

Based on the analysis, chapter VIII presents grammar exercises about *quantifiers: how many and how much. "Write answers to these questions about your neighborhood.".* Furthermore, in chapter X about the *present perfect; already, yet with the question, "how many times have you done these things in the past week? Write your answers." & present perfect vs perfect simple, with the question "complete these conversations.* Use the present perfect and simple past of the verbs given and short answers.". The questions fall into the C6 category, which is "producing quantitative information by using the expressions 'how many,' 'how much,' 'present perfect,' 'already,' 'yet,' 'simple past' of the verbs given and short answers." Furthermore, chapter XII presents grammar exercises on (a) adjective + infinitive; noun + infinitive with Look at these health problems. Choose several pieces of good advice for each problem. (b) modal verbs can, could, and may for requests and suggestions. Students are instructed to "choose the correct words." The question belongs to category C6, which is "Produce quantitative information using specific expressions or language patterns." Students are asked to select some appropriate suggestions or advice for each health issue and asked to choose the appropriate modal verbs to convey requests and suggestions in a conversational context.

Furthermore, in chapter XIII, there are two grammar exercises, including (a) expressions*, so, too, neither, either; in this question, students are instructed to write responses to show agreement with these statements.* (b) modal verbs would and will *for requests; in this question, students are instructed to complete this conversation*. The question belongs to the C6 category, which is "*Produce quantitative information using specific expressions or language patterns."* Students are asked to respond to statements by using words or expressions that show agreement and are asked to complete the conversation by using modal verbs "would" or "will" to convey orders or requests. Furthermore, in chapter XIV, there are grammar exercises *on comparison with adjectives*, and students are instructed to complete questions 1 to 4 with comparatives and questions 5 to 8 with superlatives. Students are asked to complete the questions by using comparison adjectives (comparatives and superlatives) to produce quantitative information. This skill falls into the C6 category as students are tested to produce quantitative information using appropriate language patterns.

Then, in chapter XV, there are two grammar exercises, including (a) future with *present continuous and be going to;* students are instructed to complete the invitations in column A with the present continuous used as future. Complete the responses in column B with be going to. (b) formal and informal messages with tell and ask, and students are instructed to *"unscramble these messages."* Based on the results of the analysis, students are asked to complete the invitation by using the present continuous as the future tense and complete the responses by using the form "be going to." And compose formal or informal messages by stringing words that have been scrambled. These skills fall into the C6 category because students are tested to produce quantitative information by using specific language patterns in constructing sentences that are appropriate to the given conversational context.

Chapter 16 presents grammar exercises on (a*) describing changes*. Students are instructed to "How have you changed in the last five years? Check the statements that are true for you. If the statement isn't true, give the correct information." (b) *verb+ infinitive,* students are instructed to "complete these statements so that they are true for you. Use verb + infinitive as shown in the grammar box. Then add two more statements of your own". Based on the analysis of the grammar exercises, it is included in the C6 category because students are tested to produce quantitative information about self-change by using certain language patterns that describe transformation or development, and students are asked to state activities or activities that they can or will actually do.



7 GRAMMAR FOCUS

Verb + infinitive

What are you going to do this year?
I'm (not) going to take a trip to the Caribbean.
I (don't) plan to take guitar lessons.
I (don't) want to learn to dance.
I hope to get a new job.
I'd like to travel around the United States.
I'd love to play the guitar.

GRAMMAR PLUS see page 147

A Complete these statements so that they are true for you. Use verb + infinitive as shown in the grammar box. Then add two more statements of your own.

1. I _____ travel abroad.
2. I _____ live with my parents.
3. I _____ get married.
4. I _____ have a lot of children.
5. I _____ make a lot of money!
6. I _____ become famous.
7. I _____ buy a sports car.
8. I _____ learn another language.
9. _____
10. _____

Based on the findings above, this Interchange I textbook contains all six dimensions of cognitive processes by presenting varied questions. The cognitive process includes three levels of order thinking skills, namely LOTS, MOTS, and HOTS. Analysis of the level of cognitive difficulty provides valuable guidance in designing questions, tasks, or evaluations that are appropriate to the level of understanding and cognitive abilities of learners. Problems with varying difficulty levels require higher-order thinking and more complex cognitive abilities. It can help develop problem-solving, analysis, and evaluation skills (Bloom et. al., 2001b). By understanding the level of cognitive difficulty, educators can create learning experiences that are appropriate to the developmental level of learners.

6. CONCLUSIONS

This study examines the cognitive levels of grammar exercises in the textbook "Interchange 1" for third-grade elementary school students. The research findings indicate that this textbook presents a variety of cognitive levels. The LOTS (Lower Order Thinking Skills) levels dominate the structure of the questions with 29 questions distributed across various categories (C1-C6). There is only one question in the MOTS (Medium Order Thinking Skills) category (C3), while the HOTS (Higher Order Thinking Skills) category contains 16 questions distributed across categories C4-C6.

These findings suggest that the textbook 'Interchange 1' is categorized as intermediate in terms of difficulty level. Sudjana (1990) claims that the distribution of cognitive levels in this textbook deviates from the recommended 30:40:30 ratio for effective questions. This ratio indicates 30% for low difficulty, 40% for medium difficulty, and 30% for high difficulty.

Nevertheless, the book "Interchange 1" can play a significant role in enhancing students' grammar understanding, especially if the focus is on the appropriate difficulty level of grammar questions. This variation in difficulty levels can offer various benefits for students, including the development of cognitive skills, improvement in critical thinking, perseverance and independence, exam and academic preparation, increased information retention, development of metacognitive skills, boosted confidence, lifelong independent learning, and ultimately, enhanced grammar proficiency.

Based on the above analysis, the researchers conclude that the variation in question types and cognitive categories can significantly enhance positive impacts, including:

a. Development of Cognitive Skills: Problems with varying difficulty levels require higher-order thinking and more complex cognitive abilities, aiding in the development of problem-solving, analysis, and evaluation skills (Bloom et al., 2001b).
b. Enhancement of Critical Thinking Skills: The difficulty of the questions forces students to think critically, evaluate information, and make good decisions,

supporting the development of critical thinking skills essential in daily life and the workforce (Ennis, 1985).

c. Increased Perseverance and Independence: Facing difficult problems can enhance students' perseverance and teach them independence in overcoming challenges, important for developing a never-give-up attitude and resilience in adversity. The difficulty of the questions forces students to think critically, evaluate information, and make good decisions, supporting the development of critical thinking skills essential in daily life and the workforce (Dweck, 2006).
d. Preparation for Exams and Academic Challenges: Questions with varying difficulty levels provide good preparation for exams or other academic challenges, familiarizing students with different types of questions and how to solve them (Brown, Roediger, & McDaniel, 2014).
e. Improved Information Retention: Challenging questions can enhance information retention as students need to process and understand the material more deeply to answer difficult questions (Carpenter, Pashler, & Cepeda, 2009).
f. Development of Metacognitive Skills: Facing difficult problems encourages students to develop metacognitive skills, such as self-monitoring, self-evaluation, and regulation of learning strategies (Flavell, 1979).
g. Increased Self-Confidence: Successfully solving problems of varying difficulty can boost students' confidence in overcoming learning challenges (Bandura, 1994).
h. Formation of Lifelong Learning Independence: Solving difficult problems helps students develop lifelong learning independence, enabling them to better organize their learning and continue learning outside the formal academic environment (Knowles, 1975).

Further research can be conducted to analyze grammar exercises more deeply and identify specific challenges and areas for improvement. Additionally, research can explore the impact of different difficulty levels on student engagement, motivation, and overall learning outcomes.

7. RECOMMENDATION

The discussion of recommendations on the analysis of the difficulty level of grammar exercises in the textbook entitled "Interchange 1" for grade 3 can be a crucial aspect in improving learning effectiveness. Based on the cognitive level of difficulty analysis research, it appears that some exercises may need to be adjusted to ensure the availability of appropriate challenges for grade 3 students. The main recommendation is to adjust the level of difficulty to achieve the right balance between adequate presentation of material and cognitive challenges that students can overcome. In addition, there should be a variety of types of exercises, including those that require comprehension, application, analysis, and synthesis, to allow students to develop language skills holistically. The use of interactive teaching methods that support students' active participation is also proposed to increase motivation and

comprehension. The implementation of these recommendations is expected to improve the effectiveness of English language learning in Grade 3 students using the "Interchange 1" textbook.

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