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## THE ROLE OF COGNITIVE FACTORS IN ENGLISH LANGUAGE LEARNING.

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**Abstract.** *Cognitive factors play an important role in the process of learning English as a foreign language. Learners' attention, memory, perception, reasoning, intelligence, and learning aptitude can influence how effectively they understand, process, and use new language information. This article examines the role of cognitive factors in English language learning and discusses their influence on learners' language development. Particular attention is given to the ways in which cognitive abilities affect vocabulary acquisition, grammatical understanding, comprehension, and communicative performance. The article also emphasizes the importance of considering individual cognitive differences when designing effective English language teaching strategies. Understanding these factors can help teachers create more learner-centered and productive learning environments. The study highlights that cognitive development and appropriate teaching approaches can work together to improve learners' engagement, learning efficiency, and overall English language proficiency.*

**Key words:** *cognitive factors, English language learning, attention, memory, perception, reasoning, intelligence, language aptitude.*

Learning a foreign language is a complex process that involves not only linguistic knowledge but also a range of cognitive processes. When learners study English, they need to perceive new information, pay attention to important language features, remember vocabulary and grammatical structures, and use previously learned knowledge in new situations. Therefore, successful language learning depends partly on how learners process and organize information.

Cognitive factors are particularly important in English language learning because learners differ in their ability to concentrate, remember information, recognize patterns, solve problems, and understand relationships between linguistic elements. Attention helps learners focus on relevant language input, while memory allows them to retain and retrieve vocabulary, grammatical rules, and expressions. Perception supports the recognition of sounds, words, and structures, whereas reasoning helps learners understand and apply language rules. In addition, intelligence and language aptitude may influence the speed and effectiveness with which learners acquire a foreign language.

The role of cognitive factors has become increasingly important in modern language education because effective teaching cannot always rely on the same method for every



Date: 5<sup>th</sup>October-2026

learner. Students have different abilities, learning preferences, levels of prior knowledge, and ways of processing information. Recognizing these individual differences can help teachers select appropriate activities and create learning environments that support students' cognitive development.

The purpose of this article is to examine the role of major cognitive factors in English language learning and to explain how these factors can influence learners' language development. The article focuses particularly on attention, memory, perception, reasoning, intelligence, and language aptitude. Understanding the interaction between these factors and language learning can contribute to more effective teaching practices and better learning outcomes.

Cognitive factors refer to the mental processes and abilities that enable learners to receive, understand, store, and use information. In foreign language learning, these factors influence how learners respond to new linguistic information and how effectively they develop their language skills. Learning English requires continuous mental activity because students must recognize unfamiliar sounds, understand new words, remember grammatical patterns, and apply their knowledge in communication. One of the most important characteristics of cognitive factors is that they are interconnected. For example, a learner may need attention to notice a new word, perception to recognize its pronunciation, memory to retain its meaning, and reasoning to understand how the word can be used in different contexts. Therefore, language learning should not be considered only as the memorization of vocabulary or grammatical rules. It is a complex cognitive process in which several mental abilities operate together. "The essential claim is that the concept of attention is necessary in order to understand virtually every aspect of second language acquisition." (Schmidt, 2001, p. 3) (1) This statement demonstrates the importance of attention in language learning. When learners concentrate on new vocabulary, grammatical structures, pronunciation, or meaningful communication, they are more likely to notice and process important linguistic information. Attention therefore works as an essential mechanism that connects incoming language information with further learning.

Individual differences in cognitive abilities can also affect learners' progress. Some students may remember new vocabulary quickly, while others may require repeated exposure and additional practice. Similarly, some learners may easily identify grammatical patterns, whereas others may need more explanations and examples. Such differences are natural and should be considered when planning English language lessons. Working memory is another important cognitive component in language learning. It allows learners to temporarily maintain and process information while performing complex mental activities. This is particularly relevant when students listen to a sentence, remember its beginning, and simultaneously interpret its meaning.

"The CE is responsible for attention control and coordinates the subsidiary phonological and visuospatial memory systems." (Baddeley, 2015, as discussed in Kormos & Michel, 2023)(2)



Date: 5<sup>th</sup> October-2026

This perspective shows that memory and attention do not function independently. During English language learning, students frequently need to control their attention while holding linguistic information in memory. For instance, when listening to a conversation, learners may need to remember previously heard information while simultaneously focusing on the speaker's next words.

For this reason, teachers can benefit from using a variety of activities that engage different cognitive processes. Tasks involving problem-solving, classification, comparison, discussion, listening, reading, and memory practice can provide learners with opportunities to process language in different ways. A diverse approach can make learning more meaningful and allow students to use their cognitive strengths while developing areas that require further improvement.

Thus, cognitive factors form an important foundation of English language learning. Understanding how learners process information can help teachers make instructional decisions more effectively and create learning conditions that support both linguistic and cognitive development.

Language aptitude is another important cognitive factor that can influence the process of learning English. It refers to a learner's potential to acquire a new language and to benefit from language-learning experiences. Unlike general knowledge of a language, aptitude is related to the mental abilities that support the process of learning itself. These abilities may include recognizing sounds, understanding grammatical relationships, memorizing new linguistic material, and identifying patterns in language. Learners do not possess exactly the same cognitive abilities. Some students may quickly recognize grammatical patterns and infer rules from examples, while others may perform better when rules are explained directly. Such differences can influence how learners respond to different types of English language instruction. Therefore, teachers should avoid assuming that one instructional method will be equally effective for all students. Research has demonstrated that language aptitude is related to second-language achievement. A large meta-analysis conducted by Li examined 66 studies involving more than 13,000 foreign language learners and found that language aptitude was distinct from, although related to, intelligence and other individual-difference factors. "Aptitude was independent of other cognitive and affective factors." (Li, 2016) (3). This finding suggests that language aptitude should not simply be treated as another name for intelligence. A learner may have strong general intellectual abilities but may demonstrate different levels of language-learning aptitude. Consequently, evaluating learners only through general academic performance may not provide a complete picture of their potential for foreign language learning.

Working memory is also closely connected with language aptitude. During English lessons, learners often need to hold linguistic information in mind while simultaneously processing new information. For example, a student may need to remember the beginning of a sentence while interpreting its final part or recall a grammatical rule while constructing a response. These processes require both storage and active mental processing. "Working memory capacity and language learning aptitude" are identified as key cognitive



Date: 5<sup>th</sup> October-2026

abilities that can influence L2 processing and development. (Kormos, 2023) (4). The relationship between aptitude and learning conditions is also important. Learners with different cognitive profiles may benefit from different forms of instruction. Some students may respond well to inductive activities in which they discover grammatical rules from examples, whereas others may benefit more from explicit explanations and guided practice. This suggests that effective English teaching should take individual cognitive differences into consideration.

In conclusion, language aptitude and other cognitive differences can influence the rate and quality of English language development. Recognizing these differences can help teachers provide more flexible instruction and create learning opportunities that correspond to the cognitive needs of individual learners. However, aptitude should not be regarded as a fixed limitation; appropriate instruction, practice, and learning strategies can still support learners in developing their English proficiency.

Understanding cognitive factors can help English language teachers design more effective learning activities. Since learners differ in their attention, memory, processing abilities, and language aptitude, classroom instruction should provide opportunities for students to engage with language in different ways. Rather than presenting information only through explanation and repetition, teachers can use activities that require learners to notice, analyze, remember, compare, and apply new linguistic information. Attention is particularly important during classroom instruction. Learners are exposed to a large amount of linguistic input, but they cannot process every element with the same level of concentration. Teachers can therefore direct learners' attention toward important vocabulary, grammatical structures, pronunciation features, or errors. Activities such as highlighting key words, identifying grammatical patterns, listening for specific information, and comparing sentences can help learners focus on relevant aspects of language. This perspective emphasizes that simply providing learners with English input may not always be sufficient. Learners need to actively attend to relevant features of that input. For this reason, teachers should create tasks that encourage students to notice and process important language forms rather than merely exposing them to large amounts of information. Working memory should also be considered when designing classroom activities. English learners often need to process several pieces of information simultaneously. For example, during a speaking activity, a student may need to remember vocabulary, organize ideas, apply grammatical rules, and monitor pronunciation at the same time. Tasks that are excessively complex may place a heavy demand on working memory and make language processing more difficult.

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This view demonstrates why attention and working memory should be considered together in language teaching. Teachers can reduce unnecessary cognitive demands by presenting information in manageable stages, providing clear instructions, and allowing learners sufficient time to process new material. Gradually increasing task complexity can



Date: 5<sup>th</sup> October-2026

then encourage learners to use their cognitive resources more effectively. Cognitive factors are also relevant to communicative activities. Pair work, group discussions, problem-solving tasks, and information-gap activities require learners to understand input, retrieve previously learned language, formulate responses, and monitor their own performance. Such activities can engage several cognitive processes simultaneously while giving students opportunities to use English for meaningful communication.

Recent research also indicates that producing language can influence learners' attention to grammatical features. A 2026 study published in *Studies in Second Language Acquisition* found that output improved accuracy in English grammar production and that its effects on attention were particularly evident during later-stage input processing. Therefore, English language teaching can become more effective when cognitive processes are deliberately considered in lesson planning. Teachers should combine attention-focused tasks, memory-supporting activities, problem-solving exercises, and meaningful communication. Such an approach can help learners process language more actively and develop greater independence in their English learning.

By the way conclusion, cognitive factors have an important influence on English language learning. Attention, memory, perception, reasoning, intelligence, and language aptitude affect how learners understand, remember, and use new language information. Since learners have different cognitive abilities, English teaching should provide varied and flexible learning activities.

Considering these factors can help teachers create more effective and learner-centered lessons. Appropriate teaching strategies, regular practice, and meaningful communication can support learners in developing their English proficiency and achieving better learning outcomes.

#### REFERENCES:

1. Baddeley, A. (2015). Working memory in second language learning. In *The Oxford Handbook of Working Memory*. Oxford University Press.
2. Kormos, J. (2023). The role of cognitive factors in second language writing and writing to learn a second language. *Studies in Second Language Acquisition*.
3. Li, S. (2016). The construct validity of language aptitude. *Studies in Second Language Acquisition*, 38(4), 801–842.
4. Robinson, P. (1995). Attention, memory, and the “Noticing” Hypothesis. *Language Learning*, 45(2), 283–331. <https://doi.org/10.1111/j.1467-1770.1995.tb00441.x>
5. Robinson, P. (2001). Individual differences, cognitive abilities, aptitude complexes and learning conditions in second language acquisition. *Second Language Research*, 17(4), 368–401. <https://doi.org/10.1177/026765830101700405>
6. Robinson, P. (2003). Attention and memory during SLA. In C. J. Doughty & M. H. Long (Eds.), *The Handbook of Second Language Acquisition*. Blackwell Publishing.



**Date: 5<sup>th</sup>October-2026**

7. Robinson, P. (2005). Aptitude and second language acquisition. *Annual Review of Applied Linguistics*, 25, 46–73.
8. Schmidt, R. W. (2001). Attention. In P. Robinson (Ed.), *Cognition and Second Language Instruction* (pp. 3–32). Cambridge University Press.
9. Skehan, P. (1998). *A Cognitive Approach to Language Learning*. Oxford University Press.
10. Nicolay, A.-C., & Poncelet, M. (2013). Cognitive abilities underlying second-language vocabulary acquisition in an early second-language immersion education context: A longitudinal study. *Journal of Experimental Child Psychology*, 115(4), 655–671.

