
Levels of inference in reading comprehension

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Annotation *This article provides a thorough exploration of inferencing as a critical skill in reading comprehension, particularly emphasizing its necessity for English as a Foreign Language (EFL) learners. It begins by defining inferencing as the ability to synthesize textual clues with prior knowledge to grasp unstated meanings, positioning it as foundational for deep comprehension. The author delineates the intricate relationship between lower-level reading processes (such as word recognition, orthographic, phonological, and semantic processing) and higher-level comprehension models (text and situation models), explaining how their automaticity and integration are crucial for fluent reading and nuanced understanding. A significant portion of the article is dedicated to lexical inferencing, defining it and outlining the various knowledge sources (grammatical, morphological, L1, world, and discourse knowledge) L2 readers employ. Crucially, the article offers practical, research-backed strategies for developing lexical inferencing skills in L2 contexts, including the importance of comprehensible input, thematic reading, verification, explicit instruction on cue types, and consistent practice. Ultimately, the piece argues that mastering inferencing transforms readers from passive decoders into active, insightful interpreters, equipping EFL learners with the critical thinking and communicative competence vital for academic success and real-world interactions.*

Keywords *Inferencing, high-level process, lexical inferencing, implicit meaning, reading comprehension, discourse knowledge, metacognition, semantic processing*

Уровни инферирования в понимании прочитанного

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Аннотация *Эта статья предлагает всестороннее исследование навыка вывода (инферирования) как критически важного для понимания прочитанного, особо подчеркивая его необходимость для учащихся, изучающих английский как иностранный язык (EFL). Она начинается с определения инферирования как способности синтезировать текстовые подсказки с имеющимися знаниями для понимания невысказанных значений, позиционируя его как основу для глубокого понимания. Автор разграничивает сложную взаимосвязь между процессами чтения низшего уровня (такими как распознавание слов, орфографическая, фонологическая и семантическая обработка) и моделями понимания высшего уровня (текстовая и ситуационная модели), объясняя, как их автоматизация и интеграция имеют решающее значение для беглого чтения и тонкого понимания.*

Значительная часть статьи посвящена лексическому инферированию, его определению и описанию различных источников знаний (грамматических, морфологических, L1, мировых и дискурсивных), используемых читателями L2. Важно отметить, что в статье предлагаются практические, основанные на исследованиях стратегии развития навыков лексического инферирования в контексте L2, включая важность понятного ввода, тематического чтения, верификации, явного обучения типам подсказок и постоянной практики. В конечном итоге, работа утверждает, что овладение инферированием превращает читателей из пассивных декодеров в активных, проницательных интерпретаторов, снабжая учащихся EFL навыками критического мышления и коммуникативной компетенции, жизненно важными для академического успеха и взаимодействия в реальном мире.

Ключевые слова Вывод (умозаключение), высокоуровневый процесс, лексический вывод, скрытое значение, понимание прочитанного, знание дискурса, метапознание, семантическая обработка

О'qib tushunishda xulosa chiqarish (inferencing) darajalari

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Annotatsiya Ushbu maqola o'qib tushunishda, ayniqsa chet tili sifatida ingliz tilini o'rganuvchilar (EFL) uchun juda muhim bo'lgan xulosa chiqarish (inferencing) ko'nikmasini chuqur o'rganadi. Unda xulosa chiqarish yashirin ma'nolarni tushunish uchun matnli ishoralarni oldingi bilimlar bilan sintez qilish qobiliyati sifatida ta'riflanadi va bu chuqur tushunish uchun asosiy omil ekanligi ta'kidlanadi. Muallif quyi darajadagi o'qish jarayonlari (masalan, so'zni tanish va semantik qayta ishlash) hamda yuqori darajadagi tushunish modellari o'rtasidagi murakkab bog'liqlikni tushuntiradi. Maqolada ushbu jarayonlarning avtomatikligi va integratsiyasi ravon o'qish va nozik tushunish uchun hal qiluvchi ahamiyatga ega ekanligi ta'kidlanadi. Muhokamaning muhim qismi leksik xulosa chiqarishga bag'ishlangan bo'lib, unda bu tushuncha ta'riflanadi va ikkinchi til (L2) o'quvchilari foydalanadigan turli bilim manbalari (grammatik, morfologik, ona tili, dunyo va nutq bilimlari) ko'rsatib o'tiladi.

Kalit so'zlar Xulosa chiqarish, yuqori darajadagi jarayon, leksik xulosa chiqarish, yashirin ma'no, o'qilgan matnni tushunish, nutq haqida bilim, metabilim (o'z fikrlashini tushunish), semantik ishlov berish

Introduction

Inference, a crucial reading skill, involves using clues from a text and prior

knowledge to understand what is not explicitly stated. It's like being a detective, piecing together information to draw conclusions and

deeper meaning. This skill is vital for reading comprehension, especially for older students, and involves identifying implied meanings and making logical connections.

Inference is a fundamental part of reading comprehension, helping readers move beyond literal understanding to a deeper level of engagement with the text.

Inference is an absolutely indispensable skill for English as a Foreign Language (EFL) learners, serving as the cornerstone for truly profound language comprehension and effective communication. It goes far beyond simply understanding the literal meaning of words, enabling learners to “read between the lines” and grasp the vast amount of implicit information that permeates both written and spoken English. This crucial ability allows them to deduce unstated ideas, identify underlying messages, and connect disparate pieces of information to form a coherent mental model of a text or conversation. Furthermore, inference is vital for navigating the complexities of figurative language, idioms, and cultural nuances, as the direct translation often fails to convey the intended meaning. By actively engaging with the text and drawing logical conclusions based on contextual clues and their existing knowledge, EFL learners move from passive reception to an active, analytical process that significantly deepens their understanding.

Moreover, the development of strong inference skills is paramount for navigating the challenges of real-world communication and achieving academic success. In everyday interactions, much of what is communicated relies on shared understanding and unspoken cues, making inference essential for interpreting social contexts and responding appropriately. For instance, discerning a speaker’s tone, implied intent, or cultural references heavily depends on this skill. Academically, inference is a foundational element for higher-order thinking, allowing learners to analyze, synthesize, and evaluate complex information. It empowers them to

infer the meaning of unfamiliar vocabulary from context, reducing reliance on constant dictionary lookups, and is a key component assessed in standardized language proficiency tests. Ultimately, by mastering inference, EFL learners cultivate critical thinking abilities that are transferable beyond language learning, equipping them with the tools to navigate ambiguity, solve problems, and achieve a more sophisticated and nuanced mastery of the English language.

Inference is not confined to reading comprehension; it’s a pervasive and essential skill across all four core language skills: reading, listening, speaking, and writing.

Discussions

When listening, inference allows learners to grasp unspoken meanings, understand sarcasm or irony, identify the speaker’s mood or intent from tone of voice and intonation, and interpret non-verbal cues (like sighs or hesitations). It helps them “listen between the lines” to understand implications in conversations, predict what a speaker might say next, and piece together fragmented information in real-time. For EFL learners, this is crucial for navigating authentic conversations where meaning is often implied rather than explicitly stated.

While seemingly about producing language, inference is vital for effective speaking. Speakers constantly make inferences about their audience’s background knowledge, cultural context, and emotional state to tailor their message appropriately. They infer what their listener already knows or needs to know, anticipate reactions, and adjust their language (e.g., direct vs. indirect requests, formal vs. informal tone) to ensure their message is understood and received well. This allows for nuanced communication, avoiding misunderstandings and fostering better rapport.

Inference is crucial for the writer to *imply* meaning effectively for the reader to infer. Skilled writers use subtle clues, precise word choice, descriptive language, and

structural choices to guide the reader towards certain conclusions without explicitly stating them. This includes implying character traits, foreshadowing events, conveying tone, and subtly presenting arguments. A writer needs to infer what knowledge their reader possesses and what level of detail is necessary to ensure the reader can successfully infer the intended meaning, making the writing richer and more engaging.

Inference skills develop in stages, moving from simple text-based inferences to more complex, knowledge-based ones. These stages can be categorized by the type of inference required and the level of text and background knowledge integration.

Lower-level processes include letter, word, and sentence level comprehension. Word recognition is the first process which readers execute when reading a text and is a process which readers extract lexical information from written words on the texts (Koda, 2005). It is widely accepted that learners who have better ability in reading comprehension can also recognize words rapidly and automatically; in short, fluent readers are fluent word recognizers. There are researchers who differentiate between the terms word recognition and decoding, for example, Crandall et al. (n.d.) defines word recognition as a process to see and recognize a word immediately without effort, and decoding as an act to use the alphabet and its letter-sound to produce the pronunciation of the word. However, Koda (2005) mentions that word recognition and decoding are often used interchangeably. Therefore, this study adopts Koda's stance and use the term "word recognition" consistently. Word recognition is contained with various lower-level processes such as orthographic processing, phonological processing, and semantic processing (reviewed by Grabe, 2009). Each of the processes will be described in the next paragraphs. When reading a text, readers first see the letters/words on the text to gain information. This process, to recognize letters and words in

the text, is called orthographic processing. Orthographic processing is the first process which readers use when reading a text and is the only process which receives information directly from the text (Adams, 1990). In the case of reading after recognizing letters/words through orthographic processing, readers generate the sound of its letters/words. This is called phonological processing; the process which is "responsible for mapping the letters into spoken equivalent" (Adams, 1990). Phonological processing does receive outside information; however, phonological processing only receives speech information. Although it does not accept information from reading texts, when readers try to comprehend a text, it is often the case to read the letters/words with its sound in their mind. Readers generate the sound(s) of the letters/words they recognized in their mind because it allows them to access their mental lexicon quickly (Frost, 1998).

Semantic processing uses the information gained through orthographic processing and phonological processing. Through orthographic and phonological processes, the readers understood the sequences of letters and its pronunciation. Using this information, the readers try to understand what the word means. This process, to figure out the meaning of the word, is semantic processing (Adams, 1990). These three processes are essential in word recognition and reading comprehension; however, understanding the context is necessary to comprehend a text. Adams (1990) described the process to construct "an on-going understanding of the text" as a context processor.

The readers need to perform these word recognition processes automatically in less than a quarter of a second for each word to achieve fluent reading. When fluent readers encounter a text, they automatically go through the processes to recognize and understand the word. In order to recognize words automatically, accurate word recognition processes and well-developed lexical entries

are necessary. However, automaticity is not a skill everyone owns naturally. Elementary readers first go through the word recognition processes manually. By experiencing and practicing large amounts of reading and having meaningful input, readers eventually acquire the skill to go through the processes without making efforts and become able to go through the word recognition processes automatically. Thus, developing automaticity in word recognition requires a large amount of reading (Grabe, 2009).

Higher level processes are responsible for comprehending texts in a broader level than lower-level processes such as comprehending discourse level, paragraph level, and even longer texts. It comprehends by integrating syntactic information and its meaning of the discourse and paragraph which the readers encounter. Further, higher level processes also perform to monitor their reading processes and metacognition 10 processes (Terauchi, 2010). Metacognition processes are self-reflection processes, which allows the readers to look at the processes objectively which they themselves are going through while reading. These processes are often automatic for fluent readers; however, the automaticity to read fluently in higher level processes is not as important as it is in lower-level processes. This is because the automaticity of higher-level processes cannot be achieved without the automaticity of lower-level processes. There are two main component abilities in the higher-level processes; text model of comprehension and situation model of reader interpretation (Grabe, 2009). Text model is a process which understands texts by using the information within the text. It integrates the main concept and the subconcept of the sentences to figure out the central ideas and to understand the meaning of the sentence or longer texts. The situation model involves an entirely different reading process from the text model. Situation model is a process which understands the text by using the information readers own. The information comes from, for example, how

the readers look at the text, what kind of attitude the readers have towards the theme of texts, what kind of thoughts the readers have when reading similar texts in the past, how readers evaluate the text itself, and so on (Terauchi, 2010). A text model is prioritized when the reader has little background knowledge of the text information as they cannot fully interpret to what the writer is trying to say nor do they have any opinions about the text. On the other hand, a situation model is preferred when the reader has strong background knowledge. Although the proportion of the uses of these two models differs by the type of texts the reader's encounter, the two models are normally used together while the reader tries to comprehend a text. The readers use the text model to understand what the writer aimed to tell readers through the 11 text and keep the relevant information active in their network. However, none of the readers respond the same way as others when they read the same text. Therefore, readers use their own ideas, knowledge, interpretations of the text, which is the situation model. As we can see, both the text model and the situation model are essential for reader comprehension (reviewed by Grabe, 2009). Readers who read in their second language tend to rely on the situation model rather than the text model when reading challenging texts. This is because they do not have enough vocabulary to catch information only from what the text explains. The situation model requires the readers to interpret what the text provides, and therefore, is being used more so the reader can use their knowledge and ideas to understand the text. However, the use of the situation model by L2 readers does not guarantee that the reader is comprehending the text accurately because L2 readers lacks usage of the text model process. When readers lack usage of the text model process, they are interpreting without understanding the writer's aim of the text (reviewed by Grabe, 2009).

Haastrup (1991) defines lexical inference as the process that makes “informed guesses as to the meaning of a word in the light of all available linguistic cues in combination with the learner’s general knowledge of the world, her awareness of the context and her relevant linguistic knowledge.” To identify an appropriate meaning of a word, the readers need to find useful cues from the surrounding context clues, understand the flow of the text (especially for narrative texts), and draw on previous knowledge. Although the process of lexical inference is similar for L1 and L2 readers, it is true that the L1 readers have advantages in both accuracy and speed because they have richer linguistic and cultural knowledge for comprehending texts. Wesche and Paribakht (2009) argues that lexical inference ability can be a particularly valuable tool for L2 readers and can help them improve in L2 reading skills. This is because there are often times when L2 readers need to deal with unfamiliar words. If L2 readers improve their lexical inference skills, they will enhance their reading fluency, which will support their academic learning. When readers try to infer word meanings, they use various types of knowledge both inside and outside of the text. The use of readers’ knowledge sources has been a major topic of discourse within the researching of lexical inference. Previous studies have shown that readers use their language knowledge and world knowledge during the process of comprehension by gaining information from content and linguistic cues in the text. It is also known that when reading an L2 text, the readers use both their L1 knowledge and L2 knowledge, and that readers’ L1 language and educational histories affect the way readers use their knowledge source (Wesche and Paribakht, 2009). Through the process of analyzing studies in the past and the think-aloud protocols process, Nassaji (2003) categorized five knowledge sources which L2 readers use when inferring words that they do not understand. He defined the knowledge sources as “instances when the learner made an explicit

reference to a particular source of knowledge” and the categories of knowledge sources include: grammatical knowledge, morphological knowledge, knowledge of L1, world knowledge and discourse knowledge. From this point in this study, this classification categorized by Nassaji will be called the Nassaji model. Wesche and Paribakht (2009) also taxonomized the knowledge sources used in lexical inference. It has some similarities with the Nassaji model, however, Wesche and Paribakht’s taxonomies are sorted in detail and are comprehensible in a way which it clears out which part of the text (word, sentence, or discourse) the readers used as their cue to infer word meaning.

Wesche and Paribakht (2009) suggested that lexical inference is trainable, and that it will give readers the confidence to deal with unfamiliar words. They also explained in what ways lexical inference can be successful for L2 readers, and how L2 readers can improve their lexical inference skill. First, they suggested that the reading material should be a topic that is familiar and engaging for the L2 reader. Second, the text should be comprehensible on their own. Hu and Nation (2000) discussed that when 98% of the words contained in the text is understandable by the L2 reader, the reader can infer the target word meaning more accurately. Third, thematic reading can provide readers to encounter target words many times and can offer them more information about the target word. Fourth, the readers should be advised to verify if the inference they made is correct. Since L2 readers have a high possibility of not inferring accurately, they suggest the readers use dictionaries and confirm after comprehending. Fifth, providing readers knowledge on how to perform lexical inference is helpful. The knowledge includes informing the readers what cue types and knowledge sources are available when performing lexical inference. Finally, and most importantly, it is crucial to practice frequently. Wesche and Paribakht mentioned that like other processes related to reading, lexical inference also takes

time and effort to develop and polish. Even if the readers 19 have an understanding of how they can infer word meanings in the text, it cannot be performed well without practice. In sum, readers can develop lexical inference when they use time to practice reading as much as they can.

Conclusion

In sum, inference is not merely a supplementary skill but a cornerstone of proficient reading. It empowers readers to transcend the literal text, weaving connections between explicit information and their own background knowledge to construct a richer, more nuanced understanding. The ability to infer allows readers to grasp implicit meanings, predict outcomes, understand character motivations, and identify underlying themes – all critical components of deep comprehension. In an increasingly information-rich world,

where texts often present complex ideas indirectly, the mastery of inference becomes even more vital. Therefore, fostering this skill through explicit instruction and consistent practice is paramount for educators, enabling students to become not just decoders of words, but insightful interpreters of meaning, capable of navigating the complexities of both written and real-world contexts. Ultimately, for EFL learners, the robust development of inference skills transforms them into more confident and autonomous language users. It equips them with the agility to navigate ambiguous situations, critically evaluate information, and engage more deeply with both academic content and authentic communicative exchanges, fostering a level of language proficiency that extends far beyond rote memorization.

References:

1. Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. MIT Press.
2. Crandall, J., et al. (n.d.). (Specific details needed for full APA citation, as "n.d." and "et al." without further info make it incomplete).
3. Frost, R. (1998). Toward a strong phonological theory of visual word recognition: Theoretical and empirical observations. *Psychological Bulletin*, 123(1), 71–99.
4. Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. Cambridge University Press. (This source is reviewed multiple times, indicating it's a primary reference for many concepts).
5. Haastrop, K. (1991). *Lexical inference in a foreign language: Cognitive processes and the transfer of word meanings*. Gunter Narr Verlag.