DOI: https://doi.org/10.63056/jllsa.2.10.2026.379

Journal of Language, Literature & Social Affairs

journal homepage: https://scholarclub.org/index.php/jllsa

Cognitive Processing of Figurative Language: A Study of Reading Strategies Employed by EFL Learners for Metaphorical Interpretations

Muhammad Saddam Hussain [a], Muhammad Aslam [b], Maria Fatima Dogar*[c]

a. MS Scholar, Department of English, University of Central Punjab, Lahore
b. Associate Professor, Department of English, University of Central Punjab, Lahore
c. Lecturer, Department of ELT and Linguistics, University of the Punjab.

ARTICLE INFO

Received:
August 16, 2026
Revision Received:
September 05, 2026
Accepted:
September 19, 2026
Available Online:
October 04, 2026

Keywords:
metaphor comprehension, figurative language, EFL learners, reading strategies, L1 conceptual knowledge, contextual understanding

ABSTRACT

The present study investigated the cognitive processing of figurative language among intermediate-level EFL learners, with particular focus on the reading strategies employed during metaphor comprehension and the influence of first-language (L1) conceptual knowledge, contextual understanding, and vocabulary proficiency on metaphor processing. A convergent parallel mixed-methods design was employed within a pragmatic paradigm. Quantitative data were collected from 150 intermediate-level EFL learners through a Reading Strategy and Metaphor Comprehension Questionnaire and a metaphor comprehension test, while qualitative data were obtained through semi-structured interviews with six purposively selected participants. Quantitative data were analyzed using descriptive and inferential statistics, whereas interview data were examined through thematic analysis. The findings showed that learners employed a range of cognitive, metacognitive, and support strategies. Contextual inferencing, prior-knowledge activation, rereading, comprehension monitoring, dictionary use, and online resources were among the prominent strategies reported by participants. The convergence of quantitative and qualitative findings suggests that metaphor comprehension is a multidimensional cognitive process involving strategic reading, contextual interpretation, conceptual knowledge, and linguistic resources. The study highlights the importance of developing strategic and context-sensitive approaches to metaphor instruction in intermediate-level EFL classrooms.

1. Introduction

Language is a fundamental cognitive and social system through which individuals construct meaning, communicate experiences, and interpret the world around them. Although literal language facilitates the direct exchange of information, much of everyday communication relies on figurative expressions that convey meanings beyond the lexical interpretation of individual words. Figurative language, including metaphors, similes, idioms, irony, and personification, enriches communication by enabling speakers and writers to express abstract concepts, emotions, and experiences in more meaningful and imaginative ways. Among these forms, metaphor has received considerable scholarly attention because of its central role in human cognition and conceptualization. Contemporary linguistic research no longer views metaphor merely as a rhetorical

* Correspondence to: Lecturer, Department of ELT and Linguistics, University of the Punjab.
E-*mail address:* Maria.ier@pu.edu.pk (M. F. Dogar)

3105-4919 & 3105-4927/© 2026 The Authors. Published by Scholar Club. This is an open access article.

ornament; instead, it is recognized as a fundamental cognitive mechanism that shapes how individuals perceive, organize, and understand abstract knowledge (Lakoff & Johnson, 1980; Piquer-Píriz & Alejo-González, 2020). According to the cognitive perspective, metaphor is deeply embedded in conceptual thinking and serves as a bridge between concrete experiences and abstract ideas. Individuals understand unfamiliar or complex concepts by mapping them onto more familiar conceptual domains, thereby facilitating reasoning, learning, and communication. Consequently, metaphor comprehension is not merely a linguistic activity but a sophisticated cognitive process involving conceptual mapping, semantic integration, inferencing, and contextual reasoning.

Within the field of English as a Foreign Language (EFL), figurative language remains one of the most challenging aspects of reading comprehension. Unlike literal expressions, metaphorical meanings cannot always be inferred from the dictionary definitions of individual lexical items. Instead, learners must integrate linguistic knowledge with contextual cues, background knowledge, and conceptual understanding to construct the intended meaning. For many EFL learners, this process is complicated by limited vocabulary, insufficient exposure to authentic English discourse, and differences between the conceptual systems of the first language (L1) and the target language (L2). As a result, learners frequently interpret metaphorical expressions literally, leading to misunderstanding and reduced comprehension of academic texts, literary works, and authentic reading materials.

Reading comprehension itself is widely recognized as a dynamic cognitive activity that extends beyond decoding written symbols. It requires readers to construct meaning through the interaction of textual information, prior knowledge, vocabulary, inferencing, and metacognitive regulation. A comprehensive review of reading comprehension research indicates that successful EFL readers strategically combine cognitive, metacognitive, and support strategies to facilitate comprehension and overcome linguistic challenges during reading tasks (Dogar et.al., 2025).

Readers who effectively integrate contextual information are generally more successful in distinguishing literal meanings from figurative interpretations, whereas those relying solely on lexical decoding often experience comprehension difficulties. These findings highlight that metaphor interpretation depends not only on linguistic proficiency but also on readers' ability to strategically process contextual information during reading. The cognitive processing of metaphor also involves the interaction of multiple learner-related factors, including first language conceptual knowledge, vocabulary depth, linguistic proficiency, and strategic reading behaviour. Learners often draw upon conceptual structures established in their native language while interpreting English metaphors.

The present study is grounded in Conceptual Metaphor Theory (CMT) and theories of strategic reading, which together provide a comprehensive framework for understanding how EFL learners process metaphorical language during reading. Conceptual Metaphor Theory, proposed by Lakoff and Johnson (1980), fundamentally changed the understanding of metaphor by arguing that metaphor is not merely a linguistic or literary device but a basic mechanism of human cognition. According to this theory, people conceptualize abstract experiences through systematic mappings from familiar, concrete source domains to more abstract target domains. For example, conceptual metaphors such as TIME IS MONEY, LIFE IS A JOURNEY, and ARGUMENT IS WAR demonstrate how everyday reasoning is organized through metaphorical structures. In the case of metaphorical language, readers activate relevant conceptual schemata to determine whether literal or figurative interpretations are appropriate. Therefore, successful metaphor comprehension depends on the effective interaction between textual information and readers' prior knowledge. The integration of Conceptual Metaphor Theory and reading strategy theories provides a robust theoretical framework for the present study.

2. Literature review

Research on figurative language has grown a lot over the last forty years. It used to be seen as just a rhetorical tool, but now many scholars recognize it as central to how humans think. This change started with Lakoff and Johnson's (1980) Conceptual Metaphor Theory. They argued that metaphors are cognitive structures we use to understand complex or abstract experiences, not just decorative language. Since then, studies have looked at how metaphors are processed from many angles—linguistic, psychological, neurological, and educational—and all confirm that figurative language is vital for communication, reasoning, and learning (Gibbs, 2023).

In second language learning, figurative language has become a key focus because students often come across metaphors in academic and literary texts. Unlike native speakers, EFL learners tend to find it hard to grasp figurative meanings. That's because understanding metaphors involves more than just knowing vocabulary or grammar. It requires using context, prior knowledge, making inferences, and applying strategic reading skills. So, understanding metaphor is really a complex cognitive process influenced by language skills, cultural background, first-language concepts, and reading strategies (Littlemore & Low, 2023). Reading strategies really shape how we understand metaphors. Cognitive techniques like inferencing, guessing from context, elaborating, and predicting help readers grasp the intended meaning. At the same time, metacognitive strategies let

learners check their comprehension and adjust their approach. Support methods, like using dictionaries or annotating texts, also help students overcome vocabulary and conceptual hurdles (Amini et al., 2020). All this points to the idea that understanding metaphors depends on both the reader's background knowledge and their ability to regulate their cognitive efforts.

Modern cognitive linguistics makes a clear distinction between figurative and literal language, and it does so in several ways. For starters, you can't always figure out the meaning of a figurative phrase just by looking at individual words. It depends a lot on context and what you already know about the world. Plus, many figurative expressions are tied to cultural concepts, which can make understanding them tricky for people from different backgrounds. And to really grasp these expressions, your brain needs to do some heavy lifting, making inferences and connecting ideas seamlessly. That's why figurative language can be so tough, especially for second-language learners. Those who get the hang of it often have strong skills in making inferences and are good at using context clues. On the other hand, learners who interpret everything literally tend to struggle with authentic texts in academics or literature. According to Conceptual Metaphor Theory (CMT), our minds organize understanding through mappings from concrete experiences to more abstract ideas. For example, we think of Time as Money or Life as a Journey. These metaphors are usually categorized as structural, orientational, or ontological, based on how they shape our thinking. Common metaphors tend to be processed faster because they're stored in long-term memory, making them easier to understand. Recent research has even expanded CMT into multilingual and intercultural settings, showing that metaphor isn't just a fixed language feature but a way our minds organize meaning across different cultures.

Metaphors play a key role in language, thinking, and teaching. They help expand vocabulary and make it easier to express complicated ideas briefly. Cognitively, they support understanding abstract concepts by connecting them to things we already know. In communication, metaphors make technical or academic content more relatable and persuasive, often adding emotional weight. In education, they help students grasp ideas better, remember information longer, and develop critical thinking skills. Research in English for Academic Purposes shows that teaching with metaphors boosts comprehension of complex ideas and strengthens written arguments. Instead of just teaching new words, it helps students think more deeply about concepts. Similarly, studies on English as a Lingua Franca reveal that metaphors are common in lectures and classroom discussions, serving to shape ideas, influence perceptions, and organize information.

Within EFL education, metaphor remains one of the hardest areas to master because understanding it requires more than just knowing vocabulary and grammar. Learners need to blend linguistic skills with conceptual understanding, context, inference, and cultural knowledge. Many students still struggle because teaching often focuses on accuracy and vocabulary, which can cause them to interpret metaphors literally or translate directly from their first language. But this approach doesn’t work well when different cultures have unique ways of mapping ideas.

On the bright side, research shows that metaphor awareness can improve with explicit teaching. Studies indicate that teaching about conceptual metaphors leads to better reading comprehension, vocabulary, and academic writing. New tools for measuring metaphor skills make it easier to study how awareness relates to overall language proficiency. Also, research highlights that understanding metaphors depends on several factors, like how much support the context provides, what learners already know from their first language, their vocabulary size, and their reading strategies. Learners who actively use inference, analyze context, and monitor their understanding tend to do better than those who just decode literally.

The primary purpose of this study is to investigate the cognitive processing of figurative language by examining the reading strategies employed by intermediate-level EFL learners during the comprehension of metaphorical expressions. The study further seeks to determine how first-language conceptual knowledge, contextual understanding, and linguistic proficiency influence metaphor processing. By integrating Conceptual Metaphor Theory with theories of strategic reading, the study aims to provide empirical evidence regarding the cognitive mechanisms underlying metaphor interpretation and to offer pedagogical recommendations for improving figurative language instruction in Pakistani EFL classrooms. The study tends to answer the following questions,

- **RQ1.** What reading strategies are employed by intermediate-level EFL learners in the comprehension of metaphorical expressions?
- **RQ2.** How do first-language conceptual knowledge, contextual understanding, and linguistic proficiency influence metaphor processing among intermediate-level EFL learners?

2.1. Significance of the Study

The present study contributes to the growing body of research on figurative language, cognitive linguistics, and second language reading by examining the cognitive processes underlying metaphor comprehension among intermediate-level EFL learners. Theoretically, the study extends the application of Conceptual Metaphor Theory by integrating it with strategic reading models.

Pedagogically, the findings are expected to assist English language teachers in developing more effective instructional approaches for teaching figurative language. The study is also expected to benefit curriculum developers by highlighting the importance of integrating figurative language instruction into English reading materials. Furthermore, the findings may serve as a foundation for future research investigating cognitive processing, figurative language instruction, and reading strategies across different educational levels and cultural contexts, particularly within Pakistan and other comparable EFL environments.

2.2. Research Gap

There's limited insight into how learners use strategic reading behaviors when they interpret metaphors. Research on metaphors tends to stay within linguistic or cognitive perspectives, and rarely explores the specific strategies readers employ to understand figurative meaning. Meanwhile, studies on reading strategies mainly focus on literal comprehension, often ignoring how figurative language is processed. This gap is further widened by the limited use of recent insights from Conceptual Metaphor Theory, especially regarding context and discourse, in empirical EFL reading studies. It's particularly noticeable in Pakistan, where most scholarship emphasizes grammar, vocabulary, and general reading skills over the cognitive and strategic aspects of metaphor understanding among intermediate learners. This study aims to bridge that gap by combining Conceptual Metaphor Theory with strategic reading models, to better understand how Pakistani EFL students interpret metaphorical language. It hopes to contribute both theoretically and pedagogically to the field.

2.3. Research Design

The convergent parallel mixed-methods design is a pragmatic research considering both quantitative and qualitative data were collected at the same time, analyzed separately, and interpreted together (Creswell & Plano Clark, 2018). The quantitative part investigated reading strategies which students use to comprehend metaphorical expressions and the role of the first-language (L1) conceptual knowledge, contextual knowledge and language proficiency in the processing of metaphorical expressions through a Reading Strategy Questionnaire and a Metaphor Comprehension Test. The findings of the quantitative component were complemented by the qualitative component, which employed semi-structured interviews to explore how the learners were thinking. The research was carried out at two private intermediate colleges of the Punjab Group of Colleges (PGC), Lahore, Pakistan during 2024-2025.

There were 150 participants among them 75 boys and 75 girls from one boys' college and one girls' college in a 3:3 ratio. The three males and three females who were willing and able to describe their interpretation processes and willing to participate in the qualitative phase were purposely selected from this sample.

2.4. Sampling Technique

The quantitative part of the research employed criterion sampling techniques as the sampling method, and the criteria were: (a) the students were sampled from intermediate level of English study in 2024-2025 academic year, (b) the students were sampled from students who studied English as a compulsory subject, (c) the students were sampled from students who had experience in the study of reading comprehension in English, (d) the students were sampled from students who had good ability to complete the instruments themselves. Six participants were chosen for the qualitative phase of the study using purposive sampling, as they were willing to participate, communicated well, and were able to provide rich descriptions.

2.5. Data Collection Procedure

After institutional permission and informed consent, the Reading Strategy Questionnaire and Metaphor Comprehension Test were given during regular class sessions, followed by individual, audio-recorded interviews with six participants purposively selected. SPSS was used for quantitative data analysis where descriptive statistics and one way anova test was employed to explore the effects of L1 knowledge, context and L1 proficiency on metaphor processing at significance level of $p < .05$. Transcripts were read and reread to gain a deeper understanding and were then coded, and the codes were then grouped together to form the overarching themes related to the research questions, with the help of representative quotations, and the analysis was conducted using thematic analysis. The methodological triangulation and the enhancement of overall validity of findings were facilitated by integrating the two datasets.

2.6. Research Instruments

The instruments used were Reading Strategy Questionnaire, Metaphor Comprehension Test and Semi-Structured Interview Protocol. There is a six-point Likert scale (1 = Strongly Disagree to 6 = Strongly Agree) used to measure the following cognitive strategies: inferencing, translation, contextual guessing, metacognitive strategies: planning, monitoring, and evaluation, and support strategies: rereading, using a dictionary (Adapted from established reading strategy inventories, Appendix A). The Metaphor Comprehension Test was a test designed to measure the ability to interpret conventional and contextual metaphors with multiple-choice and short-response questions. The interview guide included previous experiences with figurative

language, L1 knowledge and proficiency, and strategies employed during interpretation. The interviews were 20–30 minutes in length, audio-recorded (with permission), and verbatim (Appendix B).

2.7. Validity and Reliability

Pre-testing of instruments was undertaken to determine the instrument validity and reliability. The questionnaire and test were pilot tested with 20 intermediate EFL learners to test the clarity and the comprehensibility of the items and ambiguous items were revised based on feedback. The content validity was verified by expert judgment, and the internal consistency was measured by Cronbach's alpha. Member checking was used to improve the qualitative credibility through returning transcripts to participants for checking.

3. Data analysis

This section presents the findings of the study based on the quantitative and qualitative data collected through the Reading Strategy Questionnaire, the Metaphor Comprehension Test, and the semi-structured interviews. Quantitative data were analyzed using descriptive and inferential statistics, whereas qualitative data were analyzed using thematic analysis. The findings are organized according to the research questions.

3.1. Participants

Table 1 presents the demographic distribution of the participants included in the study.

Table 1: Gender Distribution of Participants

Gender	Frequency	Percentage
Male	75	50%
Female	75	50%
Total	150	100%

As shown in Table 1, the study included 150 intermediate-level EFL learners, comprising 75 male (50.0%) and 75 female (50.0%) participants. The equal representation of male and female students ensured balanced gender participation and minimized the possibility of gender-related sampling bias. This balanced sample strengthens the representativeness of the findings for the selected study population.

Table 2: English Proficiency Level of Participants

Proficiency Level	Frequency	Percentage
Intermediate	150	100%

As presented in Table 2, all participants were classified as intermediate-level EFL learners, consistent with the inclusion criteria of the study. The uniform proficiency level ensured that variations in English language proficiency were minimized, allowing the analysis to focus on learners' reading strategies and metaphor comprehension rather than differences in overall language ability.

3.2. Reading Strategies for Metaphor Comprehension

Table 3: Mean Scores of Cognitive Strategies

Cognitive Strategy Item	M	SD
Guessing meaning from context	4.21	0.74
Using prior knowledge	4.05	0.81
Comparing literal and figurative meanings	3.88	0.92
Translating into L1	3.65	1.02
Visualizing metaphorical meaning	3.91	0.87

3.3. Reading Strategies Employed in Metaphor Comprehension

Table 3 presents the descriptive statistics for the cognitive reading strategies employed by intermediate-level EFL learners when interpreting metaphorical expressions. Overall, the findings indicate that learners relied on a range of cognitive strategies, with contextual inferencing emerging as the most frequently used strategy.

The strategy of guessing meaning from context received the highest mean score (M = 4.21, SD = 0.74), indicating that participants frequently used contextual information to infer the meanings of unfamiliar metaphorical expressions. This finding

suggests that learners actively drew on surrounding words, sentences, and textual information when the literal meanings of individual words were insufficient to establish the intended interpretation.

Similarly, using prior knowledge was frequently reported (M = 4.05, SD = 0.81). This result indicates that learners connected new metaphorical expressions with previously acquired knowledge and experiences to construct meaning. Visualizing the metaphorical meaning also received a relatively high mean score (M = 3.91, SD = 0.87), suggesting that some learners created mental images or conceptual representations to facilitate their understanding of figurative expressions. The strategy of comparing literal and figurative meanings produced a moderate mean score (M = 3.88, SD = 0.92). This finding indicates that learners sometimes examined both possible interpretations before deciding on the intended meaning. Among the cognitive strategies examined, translating metaphors into the first language (L1) received the lowest mean score (M = 3.65, SD = 1.02).

The qualitative findings supported the quantitative results, particularly regarding the frequent use of contextual inferencing. One participant explained:

"I don't believe it is always possible to guess the meaning of every expression by using contexts because there are expressions such as idioms that have hidden meanings that cannot be understood simply from their words."

This response indicates that although learners frequently relied on contextual clues, they recognized that contextual information was not always sufficient to interpret unfamiliar figurative expressions. Another participant emphasized the usefulness of context:

"Context is very helpful as you tend to guess the meaning behind the metaphor, especially when one does not understand it."

This statement provides qualitative support for the relatively high mean score for contextual guessing and demonstrates that learners consciously employed surrounding textual information when direct lexical interpretation was difficult.

Participants also reported combining more than one reading strategy during metaphor comprehension. For example, one learner stated:

"Firstly, I guess the meaning from what I have known and then try asking other people for their opinions."

This response demonstrates the use of prior knowledge and inferencing, followed by confirmation of the initial interpretation.

Table 4: Mean Scores of Metacognitive Strategies

Metacognitive Strategy Item	M	SD
Monitoring comprehension	4.18	0.76
Rereading difficult parts	4.30	0.69
Evaluating interpretation	4.02	0.82
Adjusting reading strategy	3.97	0.88
Reflecting after reading	3.76	0.94

3.4. Metacognitive Strategies Employed in Metaphor Comprehension

Table 4 presents the descriptive statistics for the metacognitive strategies employed by intermediate-level EFL learners during metaphor comprehension. The findings indicate that participants used metacognitive strategies to monitor and regulate their understanding of metaphorical expressions. Rereading challenging texts received the highest mean score (M = 4.30, SD = 0.69), suggesting that participants frequently returned to difficult passages when they encountered problems in interpreting metaphorical meanings. This finding indicates that rereading functioned as a comprehension-monitoring and repair strategy, allowing learners to reconsider textual information and search for additional clues.

Monitoring comprehension obtained the second-highest mean score (M = 4.18, SD = 0.76). This result suggests that learners regularly assessed their understanding while processing metaphorical expressions rather than simply accepting their initial interpretations. Evaluating interpretations also received a relatively high mean score (M = 4.02, SD = 0.82), indicating that participants consciously reviewed their interpretations during the reading process. The interview findings provided further support for the quantitative results. Participants consistently described rereading as a useful strategy when metaphorical expressions were difficult to understand. One participant responded, "Yes, it does," when asked whether rereading helped clarify difficult metaphorical expressions. Another participant stated, "Most of the time. Oh yes, definitely," while Participant 05 emphasized, "Absolutely!!! It solves it all." Although brief, these responses indicate that participants perceived rereading as an effective means of resolving comprehension difficulties and identifying meanings that were not immediately apparent.

3.5. L1 Knowledge, Context, and Metaphor Processing

Table 6: Influence of L1 Conceptual Knowledge on Metaphor Processing

Variable	M	SD
L1 helps in understanding metaphors	4.12	0.83
L1 differences create difficulty	3.94	0.89

3.6. Influence of L1 Conceptual Knowledge on Metaphor Processing

Table 6 presents the findings concerning the influence of learners' first-language (L1) conceptual knowledge on metaphor processing. The results indicate that participants generally perceived their L1 as a useful resource when interpreting English metaphorical expressions. The item measuring the helpfulness of L1 knowledge received a relatively high mean score (M = 4.12, SD = 0.83), suggesting that learners frequently drew on conceptual knowledge and figurative expressions from their first language when attempting to construct metaphorical meanings in English.

However, the findings also indicate that differences between English and learners' first languages could create comprehension difficulties. The item concerning differences between English and L1 conceptualizations produced a mean score of M = 3.94 (SD = 0.89). This result suggests that L1 knowledge could have both facilitating and constraining effects on metaphor comprehension. The interview findings further supported this pattern. Participant 03 explained:

“Sometimes my first language, Urdu, helps because metaphors or expressions are similar; however, it is not always useful since sometimes metaphors or expressions are different or confusing.” This response illustrates the dual role of L1 conceptual knowledge.

Participant 05 similarly reported:

“I think it helps as one may be good at making metaphors in his/her mother tongue. Metaphors are common in everyday speech, so one will have a good idea about how to make metaphors.” This response suggests that familiarity with figurative language in the first language provided learners with a conceptual and experiential resource for approaching metaphorical expressions in English. Participant 06 further stated: “It helps me better understand the context.”

This observation indicates that L1 knowledge may also interact with contextual processing rather than functioning as an independent source of meaning. In contrast, another participant reported:

“It does not help at all.”

The variation in participants' responses indicates that the contribution of L1 conceptual knowledge was not uniform across learners or metaphorical expressions. Overall, the quantitative and qualitative findings suggest that L1 conceptual knowledge had both facilitating and inhibiting effects on metaphor processing.

Table 7: Influence of Contextual Understanding

Item	M	SD
Context helps interpretation	4.45	0.62
Lack of context causes confusion	4.26	0.73

3.7. Influence of Contextual Understanding on Metaphor Processing

Table 7 presents the findings regarding the influence of contextual understanding on metaphor processing among intermediate-level EFL learners. The results indicate that contextual information played an important role in helping participants interpret metaphorical expressions. The statement that context facilitates metaphor interpretation received the highest mean score (M = 4.45, SD = 0.62), indicating that learners frequently relied on information surrounding a metaphor to construct its intended meaning. Similarly, the statement that insufficient contextual information can lead to misunderstanding obtained a relatively high mean score (M = 4.26, SD = 0.73). This finding suggests that learners experienced greater difficulty when metaphorical expressions were presented without sufficient textual or situational information. The interview findings converged with the quantitative results. Participant 01 explained:

“Yeah, I think it is possible, although sometimes it can be hard to assume that since the words may not be consistent with those used in the text or even it becomes impossible to infer the meaning.” This response indicates that learners attempted to use contextual information but recognized that inference was sometimes constrained when the available context was insufficient. Participant 04 similarly stated:

"Sometimes due to the missing context, it is difficult."

Participant 05 emphasized the role of context in constructing meaning:

"The context aids in guessing what a metaphor is referring to, especially where the learner does not understand the tone or story behind the metaphor." Other participants reported using information beyond the immediate metaphorical expression. One participant explained:

"Yeah, at times the entire sentence or even a whole paragraph gives me a clearer idea of the meaning."

Similarly, Participant 03 stated:

"It makes the context clearer to me."

These responses indicate that learners did not restrict their interpretation to the metaphorical expression itself; rather, they considered surrounding sentences and broader textual information when constructing meaning. The convergence between the quantitative and qualitative findings demonstrates that contextual understanding was a prominent factor in metaphor processing.

Table 8: One-Way ANOVA for Reading Style and Metaphor Comprehension

Source	Sum of Squares	df	Mean Square	F	p
Between Groups	12.54	2	6.27	4.32	.015
Within Groups	169.88	117	1.45		
Total	182.42	119			

3.8. Inferential Analysis of Metaphor Comprehension

Table 8 presents the results of the one-way analysis of variance (ANOVA) examining differences in metaphor comprehension scores across the three reading-style groups. The analysis revealed a statistically significant difference in metaphor comprehension performance among the groups, $F(2, 147) = 4.32$, $p = .015$. Because the p value was below the conventional significance level of .05, the null hypothesis of no significant difference among the groups was rejected. The finding indicates that participants' reading styles were significantly associated with their metaphor comprehension performance.

The finding further suggests that metaphor comprehension is not determined exclusively by learners' general linguistic knowledge. Rather, the strategies and approaches learners employ while reading may also contribute to their ability to interpret figurative expressions. Active engagement with textual information, attention to contextual clues, and monitoring of comprehension may facilitate the construction of appropriate metaphorical meanings. Overall, the findings indicate that metaphor processing among intermediate-level EFL learners was influenced by L1 conceptual knowledge, contextual understanding, and linguistic resources. Contextual understanding emerged as a particularly prominent factor, with participants reporting frequent reliance on information available within the surrounding text to infer metaphorical meanings.

The qualitative findings further indicated that linguistic resources influenced learners' ability to process metaphorical expressions. Vocabulary knowledge, familiarity with expressions, and the ability to understand surrounding textual information contributed to learners' interpretation of metaphorical meanings. The significant ANOVA result further demonstrated that differences in learners' reading styles were associated with their metaphor comprehension performance, providing additional evidence that reading behavior contributes to figurative language processing. Taken together, the quantitative and qualitative findings suggest that intermediate-level EFL learners' metaphor comprehension is shaped by the interaction of L1 conceptual knowledge, contextual understanding, linguistic resources, and reading behavior.

4. Discussion

The present study examined the cognitive processing of metaphorical language by intermediate-level EFL learners, specifically the reading strategies they utilize as well as the role of L1 conceptual knowledge, contextual understanding and linguistic resources in comprehending metaphorical language. A total of 150 participants were selected using quantitative methods and data were collected through Reading Strategy and Metaphor Comprehension Questionnaire, metaphor comprehension test, and qualitative using semi-structured interviews which were conducted with six participants.

Learners used a mixture of cognitive, metacognitive and support strategies instead of exclusively one of these, and they switched between them as they moved from contextual inference, prior knowledge, visualization, rereading, comprehension monitoring, evaluation and external resources. This suggests that metaphor comprehension is a strategic process that requires active

construction and regulation of meaning, which is in line with previous studies that have identified resources such as contextual inferencing, rereading, online searching and prior knowledge.

Guessing meaning from context (M = 4.21, SD = 0.74) was the most frequently reported strategy among cognitive strategies, suggesting that contextual inferencing was the most salient strategy. This was confirmed in the interviews, as participants explained using sentences, tone, and narrative to ascertain the meaning of unfamiliar metaphors, but not always enough when it comes to abstract expressions. Average scores for prior knowledge use (M = 4.05, SD = 0.81) and visualization (M = 3.91, SD = 0.87) were relatively high indicating that learners frequently formed mental pictures to understand the material. The L1 translation was the lowest (M = 3.65, SD = 1.02), indicating that more translation was used than processing in the context or making inferences.

The results are consistent with the Conceptual Metaphor Theory, which proposes that metaphorical meaning is the conceptual relationship between familiar and unfamiliar areas, and with the use of both prior knowledge, context and visualization, the learners seem to have actively connected new metaphors to old conceptual frameworks. This helps to demonstrate Objective 1 as it provides evidence that learners apply more than literal interpretation or translation.

There was also a high level of metacognitive strategies. Learners often returned to re-read difficult passages (M = 4.30, SD = 0.69), suggesting they frequently reread expressions after unsuccessful first attempts at interpretation. Monitoring comprehension (M = 4.18, SD = 0.76) and evaluating interpretations (M = 4.02, SD = 0.82) also revealed that the learners did not just take the first interpretation without questioning it, but did reflect and assess their comprehension. This was reinforced in the answers to the interview questions where participants explained that their rereading is important for clearing up their doubt. This finding is in line with Yudhodibroto (2024) who revealed that there are three EFL strategies that are important to learn: rereading, self-monitoring, and reflective reading, and the present study further extends this finding to the case of metaphor comprehension where meanings cannot be gleaned literally.

Support strategies were observed where cognitive and metacognitive strategies were insufficient. The highest score was achieved by dictionary use (M = 4.40, SD = 0.65) and the online tools also achieved high scores (M = 4.10, SD = 0.79). The interviews confirmed these: Google, ChatGPT, and Gemini, were used to clarify ambiguous phrases; current EFL learners seek out external support to augment internal processing as they work through a problem, rather than technology making the decision for them. These three were not independent factors but interacted. There was heavy dependence on the information in the context as well (M = 4.45, SD = 0.62). This was confirmed by qualitative data: participants relied on sentence-, paragraph-, and tone-level cues to infer the metaphorical meaning, and it was reported that it was more difficult when there is not enough context. This may be understood using CMT: context provides clues for learners to see the conceptual relationship intended and differentiate between figurative and literal meanings. Of particular note is the finding that Context was important both as a strategy (RQ1) and as an influencing factor (RQ2) which indicates that it plays a strategic and cognitive role in metaphor processing.

L1 conceptual knowledge also influenced interpretation (M = 4.12, SD = 0.83), however, not necessarily in a positive way. The participants expressed that when Urdu concepts would have been associated with the English concept, it would help them understand the latter, and when they are not, it would be confusing. This dual role reflects CMT's perspective on metaphor as being related to culturally-informed conceptual systems, where L1 knowledge serves as a foundation for understanding, and where its utility varies in terms of cross-linguistic conceptual compatibility. Linguistic resources, especially vocabulary, were also important. Interviews revealed that unfamiliar words can impede comprehension, but one subject reported that this was not enough because "metaphors may use familiar words to convey meanings that go beyond the literal level. This illustrates that linguistic skill is not solely measurable in terms of vocabulary knowledge: successful interpretation also involves inferencing, contextual processing, and conceptual knowledge, which suggests that linguistic skill also entails interactions with the other factors of RQ2.

Together, contextual understanding, L1 conceptual knowledge, and linguistic resources all interact to influence metaphor processing. Context proved to be the most salient facilitator, the positive and negative effects of L1 knowledge were contingent on the conceptual similarity between it and L2 knowledge, and linguistic resources were an important but not sufficient support in themselves. In general, intermediate learners of FTL rely on several, interrelated reading strategies, most notably contextual inference and rereading, but as well as also monitoring comprehension, using a dictionary, as well as on-line sources to support their internal processing efforts when they need them.

5. Conclusion

When interpreting a metaphorical expression, intermediate-level EFL learners applied cognitive, metacognitive and support strategies as indicated by the results, directly addressing Research Question 1. The most common cognitive strategies were guessing meaning from context (M = 4.21, SD = 0.74), relying on prior knowledge to draw meaning (M = 4.05, SD = 0.81),

visualization (M = 3.91, SD = 0.87), and comparison of literal and figurative meanings (M = 3.88, SD = 0.92). The use of translation into the first language was comparatively less (M = 3.65, SD = 1.02). The findings suggest that the students actively built metaphorical meanings by linking the information in the text to their existing knowledge, not just translated literally.

It was also crucial to employ metacognitive strategies. The learners actively regulated their comprehension of figurative language with the highest mean score (M = 4.30, SD = 0.69) in re-reading problematic texts, followed by monitoring their comprehension of figurative language (M = 4.18, SD = 0.76) and evaluating their understanding of the figurative language (M = 4.02, SD = 0.82). Support strategies could also be seen, with dictionary use being highest overall (M = 4.40, SD = 0.65) and online tools being next (M = 4.10, SD = 0.79). What learners reported in the interview was corroborated by the data from the online dictionaries, search engines, translation apps and AI-based tools that they reported using to clarify their understanding of an unfamiliar metaphor. The study findings support the notion that metaphor comprehension is active, strategic process in which intermediate-level EFL learners use the various cognitive, metacognitive, and support strategies during comprehension.

Contextual understanding was especially salient and students found context very useful for interpretation (M = 4.45, SD = 0.62); also they reported that lacking context led to confusion (M = 4.26, SD = 0.73). The qualitative data supported the findings of the quantitative data; it showed that learners' sense of metaphorical meaning was helped by providing sentence-level, paragraph-level and tone-level contexts. The conceptual knowledge of L1 had two effects, helping the comprehension when there was conceptual overlap between L1 and L2 association (M = 4.12, SD = 0.83), and creating problems when the conceptualization was different (M = 3.94, SD = 0.89). Vocabulary was also crucial, with unfamiliar words affecting both speed of reading and comprehension of meaning; however, vocabulary had to be supplemented by context and concept interpretation in order to have an effect. In response to Research Question 2, it is concluded that the processing of metaphor is an interaction between contextual understanding, L1 conceptual knowledge and vocabulary proficiency, and that they all work together and are not processed separately. Comprehending metaphors by intermediate EFL learners is a strategic process, a contextual process, a conceptual process and a linguistic process in general. It goes beyond word level decoding and demands that students actively combine reading strategies, context information, conceptual knowledge and linguistic resources , which is a pattern that has been established by the synergy between quantitative and qualitative results.

References

Al-Hassan, S. (2024). Enhancing academic writing through metaphor-based instruction: The role of Conceptual Metaphor Theory in English for Academic Purposes. Research Studies in English Language Teaching and Learning, 2(4), 208–222. https://doi.org/10.62583/rseltl.v2i4.54

Al-Mashhadani, O. A. B., Vengadasamy, R., & Salehuddin, K. (2024). Factors influencing comprehension of metaphors in academic reading texts among Iraqi EFL learners. Arab World English Journal, 15(2), 305–320. https://doi.org/10.24093/awej/vol15no2.19

Amini, M., Zahabi, A., Amini, D., & Hosseini, S. S. A. (2020). A review of reading strategies and models in learning and teaching of English as a Foreign Language. Asian Journal of English Language and Pedagogy, 8(2), 14–26. https://doi.org/10.37134/ajelp.vol8.2.2.2020

Carrol, G., & Littlemore, J. (2020). Resolving figurative expressions during reading: The role of familiarity, transparency, and context. Discourse Processes, 57(7), 609–626. https://doi.org/10.1080/0163853X.2020.1729041

Chung, E., & Newton, J. (2025). Metaphors as Windows into Academic Vocabulary Learning. TESOL Quarterly. https://doi.org/10.1002/tesq.3375

Cieślicka, A. B., & Heredia, R. R. (2019). Figurative Language in Foreign/Second Language Learning and Teaching. In The TESOL Encyclopedia of English Language Teaching. Wiley. https://doi.org/10.1002/9781118784235.eelt0959

Gibbs, R. W. (2023). What's figurative about figurative language? Lingua, 287, 103520. https://doi.org/10.1016/j.lingua.2023.103520

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. Journal of Mixed Methods Research, 1(2), 112–133. https://doi.org/10.1177/1558689806298224

King, K. (2025). What we talk about when we talk about metaphor. English in Education, 59(2), 162–175. https://doi.org/10.1080/04250494.2025.2482565

Lakoff, G., & Johnson, M. (1980). Metaphors We Live By. University of Chicago Press.

Lakoff, G., & Johnson, M. (1980). Metaphors We Live By. University of Chicago Press.

Ma, T., Zhang, L. J., & Parr, J. M. (2024). Developing and validating instruments for measuring English-as-a-second/Foreign-Language learners' metaphor awareness. Language and Cognition. https://doi.org/10.1080/09658416.2024.2401333

MacArthur, F., & Alejo-González, R. (2024). Beyond idioms, the use of metaphor in ELF academic settings: A comprehensive review. Journal of Pragmatics, 219, 48–57. https://doi.org/10.1016/j.pragma.2023.11.002

Mohseni, F., Seifoori, Z., Ahangari, S., & Khajavi, Y. (2020). The impact of metacognitive strategy training and critical thinking awareness-raising on reading comprehension. Cogent Education, 7(1). https://doi.org/10.1080/2331186X.2020.1720946

Morgan, D. L. (2014). Pragmatism as a paradigm for social research. Qualitative Inquiry, 20(8), 1045–1053. https://doi.org/10.1177/1077800413513733
Morgan, D. L. (2014). Pragmatism as a paradigm for social research. Qualitative Inquiry, 20(8), 1045–1053. https://doi.org/10.1177/1077800413513733
Pager-McClymont, K., & Papathanasiou, E. (2023). Metaphors we learn by: Teaching essay structure and argumentation through conceptual metaphors. English in Education. https://doi.org/10.1080/04250494.2023.2240353

Piquer-Píriz, A., & Alejo-González, R. (2020). Metaphor in L2 instruction: Key issues. In A. Piquer-Píriz & R. Alejo-González (Eds.), Metaphor in Foreign Language Instruction (pp. 1–14). De Gruyter Mouton. https://doi.org/10.1515/9783110630367-001

Ronderos, C. R., Guerra, E., & Knoeferle, P. (2021). The role of literal features during processing of novel verbal metaphors. Frontiers in Psychology, 11, 556624. https://doi.org/10.3389/fpsyg.2020.556624

Song, K., Na, B., & Kwon, H. J. (2020). A comprehensive review of research on reading comprehension strategies of learners reading in English as an additional language. Educational Research Review, 29, 100308. https://doi.org/10.1016/j.edurev.2019.100308

Su, Y., & Liu, J. (2020). An E-Prime study on the cognitive mechanisms of English predicative metaphor comprehension by Chinese EFL learners. English Language Teaching, 13(10), 1–15. https://doi.org/10.5539/elt.v13n10p1

Xue, X. (2023). Cognitive view on metaphor and polysemy learning. Sino-US English Teaching, 20(2), 64–69. https://doi.org/10.17265/1539-8072/2023.02.004

Zhou, X., Younas, M., Omar, A., & Guan, L. (2022). Can second language metaphorical competence be taught through instructional intervention? A meta-analysis. Frontiers in Psychology, 13, 1065803. https://doi.org/10.3389/fpsyg.2022.1065803