Journal of English Teaching and Learning Issues, 8 (2), page 145 - 158, 2025
ISSN: 2615-3920 EISSN: 2685-4473
DOI: 10.21043/jetli.v8i2.34064

The Predictive Role of L1 Pragmatics in L2 Implicature Comprehension: A Mediation Analysis

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How to cite:

Pratama, H. (2025). The predictive role of L1 pragmatics in L2 implicature comprehension: A mediation analysis. *Journal of English Teaching and Learning Issues*, *8*(2), 145–158. https://doi.org/10.21043/jetli.v8i2.34064

ABSTRACT

This study explores the role of first language (L1) pragmatic competence in second language (L2) conversational implicature comprehension among Indonesian EFL learners. Using a quantitative design with 103 university students, the research tested a model where L2 grammatical and lexical competence mediate the relationship between L1 and L2 implicature comprehension. The instruments used included a 30-item L2 implicature comprehension test, an L1 implicature comprehension test, a vocabulary knowledge test, a grammar knowledge test, and a self-report L2 exposure questionnaire. Results showed that L2 grammar proficiency was the strongest predictor of L2 implicature comprehension (r= .695). Mediation analysis confirmed a significant direct effect of L1 implicature comprehension on L2 comprehension, with an indirect effect of L2 grammar (p= .020). However, the mediating role of vocabulary was not significant. These findings suggest that L1 pragmatic knowledge is channeled through L2 grammatical proficiency to interpret implied meanings. The study underscores the significance of integrating grammar and pragmatics in instruction, recommending that educators link syntactic structures to their pragmatic functions to help learners leverage their L1 pragmatic intuition and improve L2 competence.

KEYWORDS:
Interlanguage pragmatics; Implicature comprehension; Pragmatic transfer; Mediation analysis; Grammatical competence

ARTICLE HISTORY:
Received:
September 9, 2025
Accepted:
December 6, 2025

Introduction

Interlanguage pragmatics (ILP) examines how second language (L2) learners acquire and apply pragmatic knowledge to comprehend language use in context. Central to ILP research is the comprehension of implicatures, meanings implied but not explicitly stated, which requires the integration of both linguistic (lexical-grammatical) competence and pragmatic competence. However, these cognitive resources are often underdeveloped in L2 learners, resulting in slower and more error-prone interpretation of implicatures compared to native speakers. This study aims to address the gap in existing research by specifically investigating how proficiency levels, lexical access, and cognitive processing speed interact to shape L2 learners' ability to interpret implicatures in an EFL context. While previous studies have explored these elements individually, few have comprehensively examined them together,

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especially within the Indonesian EFL setting. By focusing on this gap, the present study offers valuable insights into how L2 proficiency affects the development of pragmatic competence.

Existing literature consistently shows that higher L2 proficiency correlates positively with accurate interpretation of conversational implicatures, speech acts, and routines. For example, Taguchi (2013) emphasizes that learners with advanced proficiency levels generally demonstrate a more refined understanding of implicature in conversation. Similarly, Köylü (2018) reports that learners at more advanced proficiency levels demonstrated significantly greater success in decoding implicatures, suggesting developmental progression in ILP competence. Such findings suggest a clear relationship between proficiency and pragmatic competence. This view is further corroborated by Nigar (2019), whose assessment-based studies using discourse completion tasks or web-based multiple-choice tests revealed proficiency-dependent differences in pragmatic interpretation.

Furthermore, previous research highlights the connection between pragmatic comprehension and literacy and reading skills. Mirzaei et al. (2016) argue that pragmatic inference is not solely a linguistic task but a cognitive one, integrating knowledge from reading skills and general interpretive abilities. This supports the hypothesis that proficiency in implicature comprehension depends on both cognitive and linguistic resources.

In the Indonesian EFL context, Pratama et al. (2017) highlight that learners struggle with less conventional implicatures and that lexical and grammatical competence are stronger predictors of implicature comprehension than mere exposure to English. This aligns with broader ILP findings that position lexical-grammatical mastery as a critical cognitive resource for drawing appropriate pragmatic inferences (Khorsheed & Rashid, 2022; Prabha, 2024). This indicates that while exposure to English is important, the development of linguistic competence has a greater impact on learners' ability to comprehend implicatures.

The present study builds on this body of research by investigating how proficiency level, lexical access, and cognitive processing speed together influence the comprehension of implicatures in an Indonesian EFL context. Unlike previous studies, which often explore these factors in isolation, this study integrates them to offer a more comprehensive understanding of how L2 learners process pragmatic meaning. It aims to provide empirical insights into the cognitive demands of implicature comprehension, ultimately contributing to the development of more effective pedagogical and assessment strategies to improve ILP competence.

L1 Pragmatic Transfer in Second Language Pragmatic Performance

One of the most influential factors explaining variation in second language (L2) pragmatic performance is the transfer of pragmatic features from the first language (L1). This transfer may be either positive, facilitating comprehension and production, or negative, leading to pragmatic failure. While previous research has primarily focused on surface-level sociocultural formulas, such as greetings or apologies, recent studies have expanded the scope to include deeper interfaces between semantics and pragmatics. Specifically, learners often project L1-based reasoning strategies, such as interpretations of quantifiers or degrees of assertion, onto L2 communication, affecting their comprehension of implied meanings (Ifantidou, 2017).

Evidence for this has been documented in experimental studies where L2 learners interpret implicatures in ways consistent with their L1 pragmatic norms. This supports the idea that L1 pragmatic schemas continue to influence inference-making in L2, especially when the L2 lacks strong contextual cues or when learners' lexical and grammatical processing is

limited (Bu, 2011; Zhu & Wang, 2022). However, despite the prominence of L1 influence, the dynamics of L1-L2 interaction are complex and not always one-directional.

Pragmatic transfer is also evident in speech acts and formulaic responses, such as in responses to compliments and expressions of gratitude. The phenomenon of bidirectional transfer, in which L1 influences L2 and L2 influences L1, has received empirical support. This reverse transfer becomes especially apparent among high-proficiency L2 users, suggesting a dynamic interplay between the two systems rather than a unidirectional influence. For example, some learners have been shown to adopt L2 pragmatic norms in their L1 interactions, indicating cross-linguistic pragmatic convergence (Alhadidi, 2017; Ewert & Bromberek-Dyzman, 2008).

Cross-linguistic investigations of speech acts, such as disagreements and congratulations, reveal that pragmatic transfer is sensitive to sociopragmatic variables, including power distance and social familiarity. Learners tend to replicate L1 strategies in L2 interactions, particularly when L2 pragmalinguistic forms are less familiar or less entrenched. In contexts of limited L2 exposure, these transfer effects are especially pronounced and can lead to miscommunication or inappropriate social signaling (Meznah, 2018; Takahashi, 1996).

From an acquisition perspective, these findings support the notion that L1 pragmatic representations function as priors that guide initial L2 interpretations. When L2 input is ambiguous or cognitively taxing, learners rely on L1-derived heuristics to compensate. While such reliance can be helpful in structurally similar situations, it often leads to pragmatic breakdown in more nuanced or culturally specific L2 contexts (Kasper, 1992; Woodfield, 2020). L1 pragmatic transfer is a pervasive force in L2 pragmatic development, shaping both learner interpretation and production in complex ways. Its impact is mediated by proficiency, context, and the cognitive demands of the L2 input.

Factors Influencing Pragmatic Comprehension in a Second Language

Understanding pragmatics in a second language (L2), particularly implied meanings such as implicatures, requires orchestrating multiple linguistic, cognitive, and contextual factors. Among these, overall language proficiency has consistently emerged as the strongest predictor of successful pragmatic comprehension. Studies have shown that learners with higher proficiency outperform their lower-proficiency peers in recognizing implied meanings across a variety of speech acts, including requests and conversational implicatures. Proficiency also influences the types of inferential strategies used, with more advanced learners demonstrating greater flexibility and accuracy in pragmatic reasoning (Roever & Wang, 2014). However, it is essential to note that while proficiency plays a crucial role, other factors, such as input quality and exposure, also significantly contribute to the development of L2 pragmatic competence.

Recent research has highlighted the difference between the length of residence in an L2 environment and meaningful, socially embedded exposure to the language. Learners who regularly engage in interactional contexts with native speakers, through work, study, or social engagement, demonstrate more robust pragmatic development than those who reside in L2 environments without interactive involvement (Taguchi, 2008). Moreover, this exposure is especially relevant for the development of productive pragmatic skills, while receptive comprehension remains more closely tied to language proficiency itself (Timpe-Laughlin & Choi, 2017).

Lexical and grammatical competence also play a foundational role in pragmatic processing. Without rapid and accurate lexical access, learners may struggle to integrate semantic information with contextual cues, thereby limiting their ability to effectively interpret implicatures. Efficient control of morphosyntactic forms and a rich lexicon, including knowledge of collocations, serve as the "raw material" for deriving pragmatic meaning (Taguchi & Roever, 2017). The interplay among form, meaning, and use is critical in shaping receptive pragmatic competence, especially when learners must infer unspoken intentions under time pressure.

Although proficiency remains a key determinant, it is clear that a combination of factors, including exposure, lexical-grammatical knowledge, and social context, significantly shape learners' pragmatic competence in a complex manner. Therefore, a holistic approach that accounts for all these factors is essential for understanding how L2 learners process pragmatic meaning.

Common Difficulties in L2 Pragmatic Comprehension and Their Theoretical and Assessment Implications

Two primary difficulties consistently emerge in the literature on second language (L2) pragmatic comprehension: the role of conventionality and the limitations of cognitive resources. First, the degree of conventionality significantly influences the ease and speed of implicature processing. Highly conventionalized indirect replies, such as fixed expressions or routine indirect refusals, are processed faster than idiosyncratic or novel forms, particularly by L2 learners. Recent psycholinguistic evidence demonstrates that conventionalized expressions activate stored pragmatic schemas, thereby facilitating quicker recognition and interpretation. In contrast, less conventional implicatures require more deliberate inferencing and are more prone to misinterpretation (Khorsheed & Rashid, 2022; Nguyen & Pham, 2022).

Second, L2 learners often face cognitive constraints that hinder their pragmatic comprehension. Pragmatic inferencing is inherently effortful, requiring efficient lexical access and working memory (WM) capacity. When cognitive resources are limited, as in fast-paced spoken interaction or when contextual cues are ambiguous, learners struggle to draw appropriate inferences. Studies show that L2 learners with stronger WM perform better on scalar implicature tasks, as they can maintain semantic alternatives and compute intended meanings more accurately (Perez & McDonald, 2020; Taguchi, 2008).

In terms of assessment, two dominant methods are widely used to measure receptive pragmatic competence: Multiple-Choice Discourse Completion Tasks (MDCTs) and computer-delivered listening tests that record both accuracy and reaction time. MDCTs have been instrumental in differentiating pragmatic ability across proficiency levels and in examining learners' inferential strategies. In addition, argument-based validation frameworks have been increasingly adopted in pragmatic test development, such as in L2 Mandarin assessment, to ensure the interpretability and fairness of test scores (Roever, 2024).

Formulating the Role of L1 Pragmatics as a Predictor of L2 Implicature Comprehension

Integrating recent insights from interlanguage pragmatics and cognitive linguistics, a theoretical framework can be proposed to explain how L1 pragmatic competence contributes to L2 implicature comprehension. First, L1 pragmatics functions as an inferential "scaffold," equipping learners with schemas for interpreting implicit meaning (Qi, 2025). These schemas,

derived from experience with indirect speech, politeness routines, and scalar implicatures, provide cognitive shortcuts that can be redeployed in the L2 context.

Second, the projection of these L1-based schemas into L2 comprehension depends critically on learners' L2 lexical and grammatical proficiency. Lexical access and syntactic control enable learners to decode linguistic forms that cue pragmatic inferences (Perez & McDonald, 2020; Taguchi, 2008). Without this linguistic grounding, L1 pragmatic knowledge remains inert. Third, exposure, particularly interactive and context-rich exposure, facilitates the entrenchment of new form-function mappings in the L2. Exposure not only increases familiarity with L2 input but also supports the development of pragmatic routines and conventionalized implicature patterns (Roever & Wang, 2014). Studies have shown that L2 learners with richer interactive experience process implicatures more efficiently and are better able to align with native-like comprehension patterns (Qi, 2025).

Method

This study builds on the methodological foundation established by Pratama et al. (2017). It focuses on the predictive relationship between L2 implicature comprehension and three key variables: English vocabulary knowledge, grammatical competence, and exposure to the L2 environment. A significant innovation in the present design is the addition of L1 implicature comprehension as the fourth variable: a dimension increasingly recognized in recent interlanguage pragmatics research (Ajabshir, 2024; Qin & Compernolle, 2021).

A pilot test was conducted with 50 third-semester undergraduate students majoring in English Language Education. The goal was to assess the internal consistency reliability of the measurement instruments, all designed to evaluate core variables in pragmatic comprehension and its potential predictors.

(1) Instrument A – L2 Implicature Comprehension (English):

This instrument comprised 30 multiple-choice items developed in collaboration with three native speakers from the United States and the United Kingdom. Items were sourced from authentic film dialogues and from the examples in the pragmatics journal, representing both formulaic and idiosyncratic implicatures. The Cronbach's alpha coefficient was 0.769, indicating acceptable reliability. This format is consistent with validated pragmatic comprehension assessments (Roever, 2006; Taguchi, 2008).

(2) Instrument B – L1 Implicature Comprehension (Indonesian):

Initially consisting of 30 items, this test was created in consultation with three Indonesian language experts. Items were similar in structure to the L2 version but used culturally embedded implicatures in the general Indonesian context. The initial reliability was unsatisfactory ($\alpha = 0.458$); however, removing 17 items increased the alpha to 0.639. Though marginal, this reliability level is considered acceptable for exploratory studies in pragmatics (Leonard et al., 2011; Rafieyan et al., 2014).

(3) Instrument C – Vocabulary Knowledge (English):

A 30-item test was constructed using vocabulary that was used in the L2 implicature instrument (Instrument A of this study). The initial reliability was $\alpha = 0.670$. After removing

12 items, the final alpha improved to 0.748. Vocabulary control has consistently been identified as a strong predictor of pragmatic inferencing success (Taguchi & Roever, 2017).

(4) Instrument D – Grammar Knowledge (English):

This instrument retained all 30 items, designed to assess grammatical constructions frequently used in conversational implicature. The final reliability score was α = 0.791, aligning with previous validation studies on L2 pragmatic proficiency (Roever & Wang, 2014).

(5) Instrument E – L2 Exposure:

A 10-item self-report questionnaire assessed learners' engagement with English through familiarity with English pop music, English film-viewing habits, and social exposure (e.g., interaction with English-speaking family members). The initial alpha was α = 0.654; three items were removed, yielding a final reliability of α = 0.705.

Main Study, Data Collection, and Analysis

In the next and main phase, a separate group of 103 English Education students in their third semester at a public university in Indonesia participated in the study. The students' proficiency levels ranged from intermediate to upper-intermediate, which is typical for their academic year. All instruments refined during the pilot phase were administered via Google Forms. The sessions were conducted synchronously and offline, proctored by their lecturer, ensuring that participants completed the tests under supervision without using AI tools or web-based resources. This controlled administration aligns with best practices for collecting pragmatic comprehension data in digital environments (Shahraki et al., 2014; Zangoei et al., 2019).

The data were analyzed using two statistical approaches:

(1) Bivariate Correlation Analysis was conducted using IBM SPSS to examine direct associations between variables, including vocabulary, grammar, exposure, and both L1 and L2 implicature comprehension.

(2) Mediation Analysis was conducted using JASP software to test the hypothesized indirect effects of L1 implicature on L2 implicature comprehension via linguistic and exposure-related variables. Mediation models are widely used in recent L2 pragmatic research to account for complex interdependencies (Ajabshir, 2024).

These analyses reflect an increasing trend in the field to adopt mediation frameworks for modeling pragmatic competence, particularly when examining the impact of cognitive and linguistic variables on implicature inference (Agostoni et al., 2021; Qin & Compernolle, 2021).

Result

Findings in Correlational Analysis

The correlation analysis presented in the SPSS output investigates the relationships among five variables: L2 implicature comprehension (IMPL2), L1 implicature comprehension (IMPL1), English vocabulary (VOC), English grammar (GRAM), and L2 exposure (EXP). Conducted on a sample of 103 third-semester English education students, the analysis aimed to explore which factors are significantly associated with learners' ability to understand conversational

implicatures in English. The findings offer valuable insights into the interplay among linguistic, cognitive, and experiential variables in the development of second-language pragmatics.

Table 1. *Bivariate correlation of all variables*

Correlations						
		IMPL2	**IMPL1**	**VOC**	**GRAM**	**EXP**
IMPL2	Pearson Correlation	1	.411**	.337**	.695**	.272**
	Sig. (2-tailed)		<.001	<.001	<.001	.005
	Sum of Squares and Cross-products	2652.097	383.243	436.350	1741.874	104.655
	Covariance	26.001	3.757	4.278	17.077	1.026
	N	103	103	103	103	103
IMPL1	Pearson Correlation	.411**	1	.136	.231*	.038
	Sig. (2-tailed)	<.001		.171	.019	.702
	Sum of Squares and Cross-products	383.243	327.107	61.874	203.184	5.154
	Covariance	3.757	3.207	.607	1.992	.051
	N	103	103	103	103	103
VOC	Pearson Correlation	.337**	.136	1	.312**	-.066
	Sig. (2-tailed)	<.001	.171		.001	.506
	Sum of Squares and Cross-products	436.350	61.874	632.058	381.146	-12.442
	Covariance	4.278	.607	6.197	3.737	-.122
	N	103	103	103	103	103
GRAM	Pearson Correlation	.695**	.231*	.312**	1	.005
	Sig. (2-tailed)	<.001	.019	.001		.959
	Sum of Squares and Cross-products	1741.874	203.184	381.146	2367.864	1.879
	Covariance	17.077	1.992	3.737	23.214	.018
	N	103	103	103	103	103
EXP	Pearson Correlation	.272**	.038	-.066	.005	1
	Sig. (2-tailed)	.005	.702	.506	.959	
	Sum of Squares and Cross-products	104.655	5.154	-12.442	1.879	55.778
	Covariance	1.026	.051	-.122	.018	.547
	N	103	103	103	103	103

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The most substantial finding from the analysis is the strong and statistically significant correlation between L2 implicature comprehension and grammar knowledge ($r = .695$, $p < .001$). This result suggests that learners with stronger grammatical proficiency are more likely to understand implied meanings in English. The strength of this correlation highlights the crucial role that grammar plays in processing indirect speech, a finding that aligns with prior studies emphasizing the foundational nature of morphosyntactic competence in pragmatic inference. This result validates the design of the grammar test, which was constructed using common grammatical structures embedded within the L2 implicature items.

L1 implicature comprehension also shows a moderate and statistically significant relationship with L2 implicature comprehension (r = .411, p < .001). Vocabulary knowledge also contributes meaningfully to L2 implicature comprehension, with a correlation of r = .337 (p < .001). While weaker than grammar, this moderate relationship is significant and suggests that lexical access remains an important component of successful inferencing. L2 exposure, measured through self-reported engagement with English-language media and interpersonal contact, shows a weaker but still significant correlation with L2 implicature comprehension (r = 0.272, p = 0.005).

Several non-significant correlations emerged. For example, exposure was not significantly related to vocabulary or grammar, and L1 implicature comprehension did not correlate significantly with vocabulary. These results indicate that the variables, while theoretically related, may operate through distinct cognitive or experiential pathways.

Findings in Mediation Analysis

The mediation analysis in JASP provides detailed insights into the direct, indirect, and total effects among the variables involved in predicting L2 implicature comprehension (IMPL2), using IMPL1 (L1 implicature) as a predictor and mediators including vocabulary (VOC), grammar (GRAM), and exposure (EXP).

Table 2. Mediation analysis of L1 implicature and exposure to L2 implicature comprehension

Direct Effects

							95% Confidence Interval	
			Estimate	Std. error	z-value	p	Lower	Upper
IMPL1	→	IMPL2	0.699	0.175	3.988	< .001	0.355	1.042
EXP	→	IMPL2	1.853	0.413	4.487	< .001	1.044	2.662

Note. Estimator is ML.

Indirect effects

								95% Confidence Interval	
					Estimate	Std. error	z-value	p	Lower	Upper
IMPL1	→	VOC	→	IMPL2	0.054	0.045	1.189	.235	-0.035	0.143
IMPL1	→	GRAM	→	IMPL2	0.391	0.168	2.331	.020	0.062	0.720
EXP	→	VOC	→	IMPL2	-0.067	0.097	-0.695	.487	-0.257	0.122
EXP	→	GRAM	→	IMPL2	-0.015	0.393	-0.038	.970	-0.786	0.756

Note. Estimator is ML.

Total Effects

							95% Confidence Interval	
			Estimate	Std. error	z-value	p	Lower	Upper
IMPL1	→	IMPL2	1.144	0.246	4.658	< .001	0.662	1.625
EXP	→	IMPL2	1.771	0.595	2.978	.003	0.605	2.936

Note. Estimator is ML.

Total Indirect Effects

							95% Confidence Interval	
			Estimate	Std. error	z-value	p	Lower	Upper
IMPL1	→	IMPL2	0.445	0.182	2.443	.015	0.088	0.802
EXP	→	IMPL2	-0.082	0.430	-0.191	.849	-0.925	0.761

Note. Estimator is ML.

Residual Covariances

							95% Confidence Interval	
			Estimate	Std. error	z-value	p	Lower	Upper
VOC	↔	GRAM	3.324	1.172	2.837	.005	1.027	5.621

Note. Estimator is ML.

Path Coefficients

							95% Confidence Interval	
			Estimate	Std. error	z-value	p	Lower	Upper
VOC	→	IMPL2	0.279	0.129	2.158	.031	0.026	0.532
GRAM	→	IMPL2	0.629	0.068	9.276	< .001	0.496	0.762
IMPL1	→	IMPL2	0.699	0.175	3.988	< .001	0.355	1.042
EXP	→	IMPL2	1.853	0.413	4.487	< .001	1.044	2.662
IMPL1	→	VOC	0.193	0.135	1.425	.154	-0.073	0.458
EXP	→	VOC	-0.241	0.328	-0.734	.463	-0.884	0.402
IMPL1	→	GRAM	0.622	0.258	2.408	.016	0.116	1.127
EXP	→	GRAM	-0.024	0.625	-0.038	.970	-1.249	1.201

Note. Estimator is ML.

In terms of direct effects, both IMPL1 and EXP show strong, significant positive relationships with IMPL2. Specifically, the direct effect of IMPL1 on IMPL2 is statistically significant, with an estimate of 0.699 ($p < .001$), and the confidence interval (lower: 0.355, upper: 1.042) confirms that this effect is robust. Likewise, EXP has a substantial direct effect on IMPL2, with an estimate of 1.853 ($p < .001$), and the confidence interval [1.044, 2.662] provides strong support for the strength of this relationship.

For the indirect effects, the analysis reveals that IMPL1 influences IMPL2 through GRAM with a significant indirect effect estimate of 0.391 ($p = .020$), and a confidence interval of lower 0.062 and upper 0.720. This indicates that grammar acts as a significant mediator between L1 and L2 implicature comprehension. However, the mediation of IMPL1 through VOC is not statistically significant, with an estimate of 0.054 ($p = .235$), suggesting that vocabulary does not meaningfully mediate this relationship.

Regarding EXP, none of the indirect paths through VOC or GRAM were significant. The path from EXP to IMPL2 through VOC has an estimated coefficient of -0.067 ($p = .487$), while the path through GRAM has an estimated coefficient of -0.015 ($p = .970$). This indicates that although EXP has a substantial direct effect on IMPL2, its indirect effects through other variables are negligible.

Looking at the total effects, IMPL1 maintains a substantial and statistically significant total effect on IMPL2, with an estimate of 1.144 ($p < .001$) and a 95% confidence interval ranging from 0.662 to 1.625. EXP also shows a significant total effect on IMPL2, with an estimate of 1.771 ($p = .003$) and a confidence interval of lower 0.605 and upper 2.936. These values reaffirm the influence of both IMPL1 and EXP on IMPL2 when both direct and indirect effects are combined.

The total indirect effect of IMPL1 on IMPL2 is also significant at 0.445 ($p = .015$), indicating mediation overall, even though only the grammar pathway is individually significant. In contrast, the total indirect effect of EXP on IMPL2 is not significant (estimate = -0.082, $p = .849$), confirming the minimal role of mediation in EXP's influence.

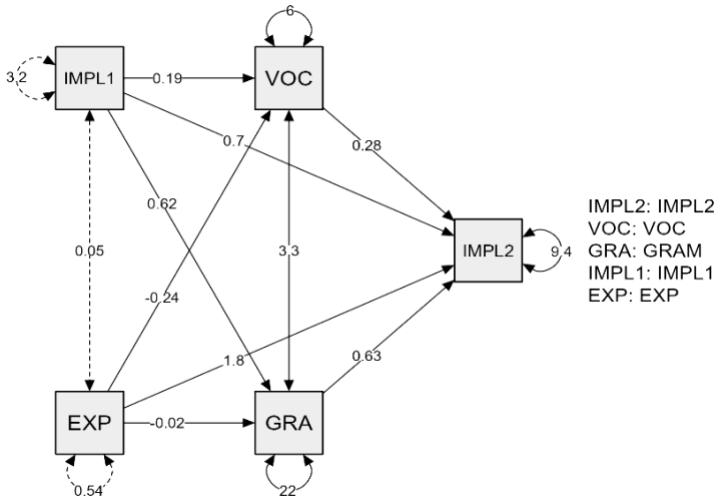


Figure 1. *JASP mediation analysis of L1 pragmatics and exposure on L2 implicature comprehension*

The path coefficients support these findings. GRAM to IMPL2 (estimate = 0.629, $p < .001$) and VOC to IMPL2 (estimate = 0.279, $p = .031$) are significant, reinforcing their importance as direct predictors. The path from IMPL1 to GRAM is also significant (estimate = 0.622, $p = .016$), while paths from EXP to GRAM and IMPL1 to VOC are not significant.

Discussion

The present study investigates the role of L1 pragmatic knowledge in the comprehension of L2 implicatures, employing a mediation analysis to assess the predictive power of various linguistic and cognitive variables. The findings significantly contribute to the understanding of how L1 transfer, vocabulary knowledge, grammar proficiency, and working memory shape pragmatic comprehension in second language learners.

The mediation analysis confirmed that grammar, rather than vocabulary, was the most significant predictor of L2 implicature comprehension when L1 pragmatic knowledge was taken into account. This finding contrasts with earlier results, in which vocabulary held primacy in models that excluded L1 influence (Pratama et al., 2017). Specifically, the correlation analysis revealed a strong positive relationship between grammar and implicature comprehension ($r = 0.695$, $p < 0.001$). This indicates that syntactic awareness, more than lexical access, facilitates the processing of implied meanings. This finding resonates with

research emphasizing the procedural role of syntax in constructing and decoding pragmatic intent in discourse (Roever, 2024; Taguchi & Roever, 2017; Xie & Yeung, 2022).

When L1 pragmatic influence is not considered, vocabulary knowledge emerges as a relatively stronger predictor of language proficiency. This shift highlights the dynamic interplay between cross-linguistic pragmatic competence and linguistic subcomponents. Learners lacking L1 pragmatic transferability may rely more on lexical access strategies (Perez & McDonald, 2020; Yang, 2022), especially when decoding unfamiliar sociopragmatic cues. However, once learners' L1 pragmatic framework is activated or made relevant, syntactic alignment with the target language becomes more salient, and grammar regains its central role. This supports previous findings from Köylü (2018), who finds that syntactic scaffolding improves implicature interpretation accuracy in L2 contexts.

The inclusion of L1 pragmatic awareness as a mediator also explains previously conflicting findings in the literature. While Bu (2011) and Meznah (2018) emphasize the obstructive effect of negative pragmatic transfer, Alhadidi (2017) suggests that appropriate L1 transfer can positively impact pragmatic processing when structural compatibility exists between L1 and L2. In the present study, the mediation model clarifies that L1 pragmatic knowledge not only interferes but can also redirect learner attention to grammatical patterns that are congruent with pragmatic expectations.

The significant indirect effect through L1 pragmatics confirms the longstanding assertion that pragmatic transfer is not uniformly negative (Kasper, 1992; Takahashi, 1996). Instead, it is context- and structure-dependent. This aligns with Ifantidou's (2017) view that procedural meaning from L1 can support L2 pragmatic development, especially in implicature-rich interactions where inferred meaning exceeds literal content.

Learners with higher exposure to authentic L2 environments or content tended to perform better on implicature tasks, echoing Roever and Wang (2014), who find that immersive input and task-based interaction support the development of sociopragmatic competence. In the present study, learners with prior experience communicating with native or near-native speakers showed greater grammatical sensitivity in implicature comprehension, likely due to increased awareness of indirectness, formality shifts, and contextual implicatures (Woodfield, 2020).

A key implication of the findings lies in instructional design. Grammar-focused interventions may yield greater gains in pragmatic comprehension than vocabulary-building exercises, particularly when L1 pragmatics is also discussed. This is supported by Nguyen and Pham (2022), who demonstrate that explicit pragmatic instruction, when combined with grammar instruction, enhances learners' ability to accurately interpret implied meanings.

Similarly, Mirzaei et al. (2016) report enhanced implicature comprehension after instruction that emphasized syntactic-pragmatic associations. Instructional implications also arise from the finding that the predictive strength of grammar over vocabulary varied depending on whether L1 pragmatics was accounted for. Teachers may consider using contrastive analysis to show how grammatical structures in L1 and L2 encode indirectness, implicature, and politeness. Such awareness-raising aligns with the "noticing" hypothesis in interlanguage pragmatics and is supported by studies such as Ewert and Bromberek-Dyzman (2008), who emphasize sociopragmatic training for effective L2 performance.

As Zhu and Wang (2022) highlight, pragmatic transfer in disagreement strategies often relies on syntactic features, such as hedging, negation, and tense-modality systems. The

learners in the present study who successfully interpreted implicatures often demonstrated mastery of such grammatical nuances, suggesting that these structures are critical for successful implicature decoding.

This study supports the consensus that grammar and vocabulary are interdependent, but their relative contributions to L2 pragmatic comprehension vary with contextual and cognitive factors. While studies such as Jeon and Yamashita (2014) and Raeisi-Vanani and Baleghizadeh (2022) report a strong joint influence of vocabulary and grammar on L2 reading, the current research extends this conclusion to the domain of pragmatic comprehension. This domain requires learners not only to understand form and meaning but also to infer the speaker's intent, an area where grammar often provides subtle yet essential cues.

The current study affirms that grammar emerges as the dominant predictor of L2 implicature comprehension when L1 pragmatics is integrated as a mediator. This finding urges reconsideration of L2 pragmatics instruction, advocating for a greater focus on syntactic awareness, especially in classrooms where learners' L1 pragmatic frameworks can be leveraged. Future research should examine how specific L1 grammatical structures facilitate or inhibit accurate L2 pragmatic inferences, particularly across diverse learner populations and instructional contexts.

Conclusion

This study confirms that L1 pragmatic competence is a significant predictor of L2 implicature comprehension, and this relationship is crucially mediated by L2 grammatical knowledge. The central research question explored the mechanism through which L1 pragmatics influences L2 performance, and the findings reveal a clear answer: L2 grammar serves as the primary channel for transferring existing pragmatic schemas. While L1 competence has a direct effect, its indirect influence via grammatical proficiency was statistically significant, whereas the mediating role of vocabulary was not. This underscores that understanding how something is expressed (grammar) is more critical in this process than knowing the specific words used (vocabulary).

This research contributes to English Language Teaching by providing empirical evidence against treating grammar and pragmatics as separate domains. Educators should design instruction that explicitly links syntactic structures to their pragmatic functions, thereby helping learners leverage their innate L1 pragmatic intuition. By making these connections clear, teachers can facilitate a more efficient and effective development of L2 pragmatic competence.

A primary limitation of this study is its reliance on a multiple-choice format, which may not fully capture the dynamic cognitive processes of real-time implicature interpretation. Furthermore, its cross-sectional design provides only a snapshot rather than a developmental perspective. Future researchers are encouraged to employ longitudinal methods and qualitative instruments, such as think-aloud protocols, to enhance their understanding of the topic.

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