



The Effects of Task Complexity on Second Language Learners' Pragmatic Knowledge Development: A Review of Literature

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Abstract

This study examines the impact of task complexity on the development of pragmatic knowledge in second language (L2) learners. Utilizing Robinson's Triadic Componential Framework, the research focuses on the variable of [+/- no reasoning demands] and its influence on the production of various pragmatic forms such as requests, refusals, suggestions, and persuasions. The study reviews five empirical investigations that manipulate task complexity and analyze its effects on L2 learners' pragmatic performances. Results indicate that complex tasks elicit a higher quantity of pragmatic-related episodes (PREs), fostering deeper engagement with sociopragmatic factors. However, the variety of pragmatic forms produced did not significantly increase with task complexity, suggesting a need for additional strategies to encourage linguistic diversity. The findings support the application of task-based language teaching (TBLT) in enhancing pragmatic competence and provide insights into optimizing task design for effective language instruction. Implications for future research and pedagogical practices are discussed, emphasizing the importance of diverse task modalities and comprehensive evaluations of pragmatic development.

Introduction

This paper delves into the intersection of two pivotal domains within second language acquisition (SLA) research: task complexity and second language (L2) pragmatics. While contemporary SLA research has extensively explored the development of morphosyntax in L2 learning through task-based language teaching (TBLT) and task complexity, the potential impact of task complexity on enhancing L2 pragmatic knowledge through task-based instruction and interaction remains relatively uncharted.

As both task complexity and pragmatics research investigate the interaction of form and meaning in L2 learners within contextual frameworks, it becomes pertinent to explore the potential impact of task complexity on L2 pragmatic development. This study seeks

to address this gap by examining the effects of task complexity on L2 learners' pragmatics development. Task complexity in this study is operationalized through Robinson's Triadic Componential Framework [1], focusing specifically on the variable of [+/- no reasoning demands]. The study targets various pragmatic forms, including requests, refusals, suggestions, and persuasions.

The paper is structured as follows: it begins by elucidating the theoretical foundations, proceeds to review five pertinent studies concerning task complexity and L2 pragmatics, and concludes with discussions on the observed effects of task complexity on L2 pragmatic knowledge development, along with implications for future research and pedagogical practice.

A Review of Literature

Task Complexity Frameworks

Research into the importance of cognitive task demands in second language teaching and learning has predominantly centered on the concept of task complexity, as delineated by Robinson [2]. Task complexity is deemed pivotal in task design, guided by theoretical frameworks such as Skehan's [3] Limited Capacity Hypothesis and Robinson's [4] Cognition Hypothesis.

Skehan's Limited Capacity Hypothesis posits that learners possess finite attentional resources, leading to competition among performance dimensions. Consequently, tasks with higher cognitive demands may divert attention from linguistic codes, resulting in a potential trade-off between attention to form and meaning. In contrast, Robinson's Cognition Hypothesis challenges this notion by suggesting that learners can access multiple attentional pools simultaneously. According to this framework, increasing task complexity may enhance accuracy and complexity without compromising fluency. Furthermore, Robinson [2] proposes that complex collaborative tasks foster interactional features like negotiation for meaning and corrective feedback, thereby facilitating language development.

While the Triadic Componential Framework [1] offers essential insights into task complexity, its detailed discussion has been previously covered in previous exams and will not be reiterated in this paper.

L2 Pragmatic Knowledge and Social Characteristics

L2 learners' pragmatic knowledge is evaluated based on their ability to appropriately use pragmatic forms in given contexts, which is assessed through pragmatic-related episodes (PREs). Pragmatics, concerned with language use in social contexts, comprises two intertwined knowledge bases: pragmalinguistics and sociopragmatics [5,6]. Pragmalinguistics pertains to available linguistic forms for language functions, while sociopragmatics involves understanding the contextual usage of these forms.

In language learning, these knowledge bases are inseparable, as learners must not only grasp linguistic forms but also comprehend when and how to use them based on various contextual factors [7]. Pragmatic knowledge is operationalized as learners' accurate utilization of pragmalinguistic forms in specific situations, necessitating an understanding of social characteristics and the ability to produce corresponding pragmalinguistic forms. The accurate use of these forms indicates comprehension of sociopragmatic variables.

Social characteristics encompass various aspects of the social context influencing language production and interpretation during communication, contributing to the appropriate use of language [8]. Power (i.e., the degree of influence, authority, or control one person has over another), distance (i.e., the perceived or actual closeness between two individuals in terms of their relationship, familiarity, or intimacy), and rank of imposition (i.e., the degree to which a speech act or request imposes on the hearer) (PDR) are politeness-

related concepts shedding light on how individuals interact while adhering to social norms and expectations. Situations are classified as PDR-high or PDR-low based on the level of imposition and the relationship between interlocutors. Tasks incorporating PDR-high and PDR-low scenarios facilitate learners' understanding of sociopragmatic factors and pragmatic forms. In the following section, five empirical studies are scrutinized regarding how task complexity influences the enhancement of pragmatic knowledge among L2 learners.

Empirical Studies on Task Complexity and L2 Pragmatics

Taguchi [9] conducted a study investigating the impact of task difficulty on L2 production in requests and refusals. Although task complexity was not explicitly defined, the researcher suggested that the speech act in PDR-high situations was perceived as socially more challenging compared to PDR-low situations, requiring participants to engage in more reasoning processes. Consequently, the [+/- no reasoning demands] variable along the resource-directing dimension was considered a means to control task complexity. The study involved 59 Japanese learners with varying proficiency levels in an English as a Foreign Language (EFL) classroom setting at a Japanese university. Participants were assigned to two task situations: PDR-low and PDR-high and engaged in speaking role-play tasks where they responded to standardized initiations based on given situation descriptions. Request and refusal productions were analyzed by six native ESL instructors, demonstrating high interrater reliability. The findings revealed that L2 learners with higher proficiency levels employed more complex and embedded sentence structures in the PDR-high situation, indicating the effects of proficiency level and task complexity on request and refusal production.

Gilbert and Barón [10] conducted a study to assess the impact of increasing task complexity on L2 learners' production of requests and suggestions. Task complexity was operationalized based on [+/- no reasoning demands] along the resource-directing dimension. The study comprised 36 intermediate English learners from Spanish universities who engaged in problem-solving and decision-making oral tasks. In the problem-solving task, participants completed simple and complex versions requiring them to rescue people from a fire with differing resource constraints. The complex version demanded prioritization and justification of chosen actions and sequence due to limited resources. In the decision-making task, participants role-played scenarios of planning a party, with simple and complex versions presenting varying degrees of conflict resolution and decision-making complexity. Pragmatic productions of requests and suggestions were analyzed using the CLAN version of Chiles [11]. Results indicated a higher number of requests and suggestions in the complex task versions, demonstrating a task effect on pragmatic productions mediated by task complexity. However, no differences in the variety of productions were observed between the simple and complex task versions.

Kim and Taguchi [8] conducted a study to examine the impact of task complexity on the learning of request-making expressions among Korean junior high school students. Task complexity was

operationalized using contextual variables, specifically PDR, and measured through the [+/- no reasoning demands] variable. Seventy-three students with proficiency levels ranging from high beginner to high intermediate were assigned to one of three groups: simple task, complex task, and control, within EFL classroom contexts. Both task groups completed pretests, collaborative tasks, and posttests, while the control group only performed pre- and posttests. The task groups engaged in collaborative writing tasks, with the complex tasks intentionally omitting scenario descriptions to elicit reasoning processes among participants. Learners' oral interaction during tasks was analyzed for PREs, while their production of request expressions was measured using a discourse completion test (DCT). Results indicated that more complex tasks facilitated the occurrence of PREs, demonstrating the effect of task complexity. Additionally, both task groups outperformed the control group in learning request-making expressions, with the enduring effect observed in the complex task group demonstrated by the delayed posttest.

Kim and Taguchi [7] conducted a study building upon their previous work [8] to investigate differences in learner-learner interactions between tasks of varying complexity (manipulated via [+/- no reasoning demands]) and pragmatic characteristics (manipulated via PDR). The study involved 49 Korean junior high school EFL learners participating in simple or complex collaborative writing tasks in classroom settings. Learners were tasked with writing television drama scripts involving request-making expressions based on provided pictures. Interaction data from tasks of varying complexity and pragmatic characteristics were transcribed, coded, and analyzed for PREs to examine the effects of task complexity and pragmatic characteristics. Results

indicated that more complex tasks elicited a larger amount of interaction, primarily targeting sociopragmatic factors, but the effects of task complexity were consistent across tasks involving different pragmatic characteristics (i.e., PDR-low, and PDR-high situations).

Gomez-Laich and Taguchi [12] examined the effects of task complexity on L2 learners' production of persuasion in a collaborative writing task. Task complexity was manipulated using the [+/- no reasoning demands] resource-directing variable by controlling the amount of assistance provided to students. The study involved 62 advanced ESL college students in a US university, assigned to either a simple or complex task condition. Participants engaged in a collaborative writing task to construct an essay, with the simple task condition providing content ideas and the complex task condition withholding content support. Learners' interaction data were analyzed for the production of persuasion, focusing on two components: rhetorical moves and linguistic forms. Results revealed that the complex task condition prompted participants to use more reasoning processes, leading to extended negotiation sequences, frequent pauses, and hesitant speech. Learners in the complex task condition also employed significantly more rhetorical moves and linguistic forms in their persuasive essays compared to learners in the simple task condition.

A review of five empirical studies in Table 1 reveals that they share similarities in terms of participants, settings, task modalities, complexity variables, and pragmatic structures. These commonalities enable researchers to compare their results and draw meaningful conclusions about the impact of task complexity on the pragmatic development of L2 learners (Table 1).

Table 1: Summary of the five empirical studies.

Study	Level	Setting	Modality	Task	Structures	Result
Taguchi [9]	High & low	EFL	Speaking	Respond to descriptions of a situation	Requests & refusals	Learners used more complex structures in PDR-high situation.
Gilbert & Barón [10]	Intermediate	EFL	Speaking	Interact with partners based on scenarios	Requests & suggestions	Learners produced more requests & suggestions in the complex task.
Kim & Taguchi [8]	Low to intermediate	EFL	Writing	Describe pictures with appropriate expressions	Request-making expression	Task groups outperformed the control; complex group was better in the delayed test.
Kim & Taguchi [7]	Low to intermediate	EFL	Writing	Write scripts based on pictures	Request-making expression	Complex tasks elicited more PREs.
Gomez-Laich & Taguchi [12]	High	ESL	Writing	Interact and construct an essay	Persuasion	Learners used more persuasive expressions in complex tasks.

Discussion

The present study explores the effects of task complexity on learners' pragmatic development by examining five empirical studies. These studies manipulate task complexity using the [+/-

no reasoning demands] variable along the resource-directing dimension and focus on analyzing pragmatic forms such as requests, refusals, suggestions, and persuasions. The development of L2 learners' pragmatic knowledge is operationalized as PREs and tests (e.g., DCTs).

The main finding from these empirical studies indicates that task complexity significantly influences learners' pragmatic performances. Specifically, complex tasks elicit a higher quantity of pragmatic-related interactions (i.e., PREs) compared to simple tasks. When engaging in complex tasks without the support provided by simpler tasks, learners are required to carefully consider and discuss contextual issues. Consequently, they engage in more in-depth conversations about requests, refusals, suggestions, and persuasions, leading to an increased number of PREs in complex tasks. These findings support Robinson's Cognition Hypothesis [1,13], which, although not making specific predictions about pragmatics, posits that increased task complexity will lead to more interactive moves, ultimately contributing to language development. In the context of the five studies examined, this hypothesis is supported by the observation that learners' pragmatic knowledge development increases as more PREs are produced during complex tasks.

In light of this, it is important to note that the effect of task complexity on PREs was observed only in the domain of sociopragmatics, and not in pragmalinguistic forms, as reported by Kim and Taguchi [7]. In other words, learners' development of L2 pragmatic knowledge was found to occur primarily in understanding social characteristics rather than in the linguistic forms they used in different situations. This finding is not entirely unexpected, as learners engaging in complex tasks were required to undertake a higher degree of reasoning processes by analyzing contexts and comparing characters. Once learners reached a mutual understanding of the contextual elements, they tended to directly and simply select appropriate pragmalinguistic forms for the given situations, without engaging in further discussions. This highlights the importance of considering both sociopragmatics and pragmalinguistics when examining the effects of task complexity on L2 learners' pragmatic development.

A key finding from the study of Gilabert and Barón [10] revealed that although the amount of interaction differed between simple and complex tasks, there was no significant difference in the variety of pragmatic forms produced by learners. In other words, complex tasks only elicited more PREs but did not push learners to use a wider variety of pragmatic forms. This suggests that task complexity alone may not be sufficient to engage learners in using a more diverse array of linguistic structures. Instead, learners may have remained within their comfort zone, relying on familiar and high-frequency forms [10]. This observation supports the characteristic of task-essentialness and avoidance behavior. Task-essentialness emphasizes the necessity of particular linguistic forms in completing tasks. If learners have already identified a suitable structure, they might not actively explore alternative options. Avoidance behavior claims that learners may intentionally avoid using challenging words or structures, opting for simpler alternatives instead [14]. Thus, educators and researchers should consider additional factors or strategies to encourage learners to expand their range of linguistic forms in pragmatic development.

One discrepancy found between Taguchi [9] and Kim and Taguchi [7] is the effects of task complexity on tasks involving

different social characteristics (i.e., PDR). Taguchi [9] found that PDR-high speech acts were harder to produce and required a longer production time for learners than PDR-low ones. However, these social characteristics in Kim and Taguchi [7] did not lead to different PREs when task complexity was factored in. In other words, cognitively more complex tasks generated more interactions only around contextual variables regardless of the situation type (i.e., PDR-high, and PDR-low). This outcome could be attributed to the fact that, although these situations involved varying contextual information, the requirement for completing both tasks was the same: understanding contextual elements and choosing appropriate linguistic forms. In both situation types, the availability of contextual information was essentially the same, which resulted in the same amount of interaction. What affected interactions was the degree of accessibility to this information (i.e., simple, or complex tasks). Another possible explanation for this discrepancy could be the different target pragmatic structures in each study. Taguchi [9] focused on requests and refusals, while Kim and Taguchi [7] examined request-making expressions. These differences in the target structures may have contributed to the varying findings between the two studies.

Implications and Limitations

The findings from this paper suggest pedagogical implications for teaching pragmatic knowledge. First, TBLT proves effective in pragmatic instruction. According to Ellis et al. [15], implicit grammar instruction (e.g., TBLT) can provide learners with opportunities to infer rules without awareness, leading to the internalization of structures. Learners completing tasks develop pragmatic knowledge without conscious awareness of the rules but by paying attention to meaning. In Kim and Taguchi's [7] study, participants' successful task performance in both task conditions outperformed their counterparts in the control group, indicating that task conditions and TBLT are appropriate for pragmatic instruction. Second, cognitively demanding tasks elicit more PREs than simple tasks, suggesting that complex tasks are more effective in developing learners' pragmatic knowledge. The effects of task complexity were also observed in the delayed posttest [8], contributing to the literature on the long-term effects of task complexity on pragmatic learning. Instructors can purposefully allocate a higher proportion of complex tasks to encourage learners to engage in more discussions of pragmatic knowledge. Third, the settings of the five empirical studies demonstrate that the findings can be applied to both speaking and writing tasks across different proficiency levels in both EFL and ESL classrooms. This versatility means that the insights gained from these studies can benefit a wide range of learners and educational contexts.

This paper has several limitations that need to be addressed in future research. First, the range of pragmatic acts in the five empirical studies is limited. While a few were discussed, other expressions, such as expressing empathy, giving directions, and providing constructive criticism, can be incorporated into speaking, or writing tasks for a more comprehensive understanding of pragmatics. Second, in terms of testing Robinson's Cognition Hypothesis, all the studies focused on the variable of reasoning

demand along the resource-directing dimension. Future research should explore other variables when manipulating different complexity levels to expand the understanding of the impact of task complexity on L2 pragmatic development. Third, the target languages in the five studies are English and Spanish. Considering the typological proximity between these languages, it might not be appropriate to draw the same conclusions for languages that have a greater distance from English and Spanish. Further research should investigate the effects of task complexity on L2 pragmatic knowledge in other languages, thus providing a more diverse and comprehensive perspective on the topic.

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Conflict of Interest

No conflict of interest.

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