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Interaction-seeking behavior in second language learning: a preliminary exploration in the United States

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ABSTRACT

Drawing on Proactive Language Learning Theory (Papi and Hiver 2025a. "Proactive Language Learning Theory." *Language Learning* 75 (1): 295–329; 2025b. "What Proactive Language Learning Theory Is and Is Not: A Response to Atkinson's Commentary." *Language Learning* 75 (1): 337–342.), this study examines how adult ESL learners actively demonstrate proactive interaction-seeking behavior in English-speaking environments as a means of enhancing their communicative competence. Based on a thematic analysis of data collected from semi-structured interviews with ten international graduate students learning English as a second language in the United States, this study uncovered three interconnected themes related to interaction-seeking behavior: Proactive Interaction Seeking, involving the deliberate identification and access to communicative opportunities; Proactive Interaction Engagement, characterized by strategic participation in interactional opportunities; and Proactive Interaction Monitoring, entailing reflective evaluation of one's interactional performance. These behaviors collectively position interaction as strategic efforts for L2 learning and use driven by learner agency. This study provides a preliminary window into why interaction-seeking is important in L2 acquisition. It lays a starting point for future studies and suggests ideas for fostering learner engagement in L2 interaction-seeking behaviors.

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Introduction

Classic second language acquisition (SLA) concepts such as the Interaction Hypothesis (Long 1996), the Output Hypothesis (Swain 1985), and the Noticing Hypothesis (Schmidt 1990) established the importance of input, output, and attention as factors contributing to L2 acquisition. These views remain influential and continue to inform our understanding of the cognitive process underlying the L2 acquisition process. However, over the past few decades, alternative approaches have gradually emerged that portray learners as goal-oriented agents who actively direct their own language

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learning process rather than as cognitive beings that passively receive and process L2 input (e.g. Atkinson 2011; Larsen-Freeman and Cameron 2008; van Lier 2000).

Proactive Language Learning Theory (PLLT), a theoretical framework that highlights how learners function as self-regulating agents who actively direct their learning experience (Papi and Hiver 2025a), reflects such an approach. From a PLLT perspective, learners actively seek and use learning opportunities that offer L2 affordances such as input, interaction, metalinguistic information, and corrective feedback, for the purpose of enhancing their L2 knowledge, skills, and abilities. Learners perform these actions because they set individual learning targets and evaluate their learning environment based on their personal beliefs and behaviors. The theory enables researchers to study how learners direct their language development through purposeful actions that involve conscious decision-making and strategic planning.

Despite the promise of PLLT, the majority of empirical studies to date have been limited to feedback-seeking behaviors (e.g. Mahbodi, Papi, and Wolff 2025; Papi et al. 2019, 2020, 2024; Zhou et al. 2023). There remains a noticeable gap in research on other types of proactive L2 learning behaviors, such as interaction-seeking behavior, which concerns learners' strategic efforts in seeking and using interaction opportunities for the purpose of L2 learning. While constructs like willingness to communicate (MacIntyre et al. 1998), learner engagement (Mercer 2019; Philp and Duchesne 2016; Svalberg 2009), and learner agency (Ushioda 2011; van Lier 2010) have significantly advanced understandings of participation and engagement, they often conceptualize interaction as a behavior that learners are willing to show in hypothetical situations, limited to instructional settings, or too vague to conceptualize for research purpose.

This study seeks to address this gap by exploring how adult ESL learners navigate opportunities to interact in an L2 across formal and informal contexts, thereby setting the empirical ground for further conceptualization and operationalization of the notion of interaction-seeking behavior in SLA. Specifically, this study aims to offer a nuanced account of how international students learning ESL in the context of the United States engage in proactive interaction-seeking both within and beyond the classroom to enhance their L2 interactional skills. Such an approach also aligns with recent calls to better understand the learner's role in shaping the conditions of their own acquisition (Lambert, Aubrey, and Bui 2023; Papi et al. 2019). In doing so, this study seeks to contribute to the ongoing development of PLLT (Papi and Hiver 2025a, 2025b) by providing novel empirical insights into the dynamic, socially situated efforts that learners strategically employ to advance their L2 learning goals.

Proactive Language Learning Theory

PLLT is a reaction to and movement away from the dominant cognitive view of language acquisition. SLA theories have traditionally emphasized either the nature of acquired knowledge or the cognitive processes that underlie learning. For example, Miller et al. (2023) examined how generative SLA has evolved methodologically by integrating neurolinguistic approaches, such as neuroimaging, to investigate how adults process grammatical gender and non-local dependencies in an L2. Similarly, McManus (2021) explored how language-switching practice influences learners' ability to manage cross-language interference during L2 grammatical processing. From a skill acquisition

perspective, Suzuki and DeKeyser (2017) studied the proceduralization of L2 grammar through practice and working memory. While these approaches have shed light on the mental and linguistic dimensions of SLA, their psycholinguistic perspective reduces the learner to computational systems processing linguistic information (Atkinson 2011). This portrayal does not align with a view of learners as socially motivated agents who direct their own learning process. In recent years, however, a growing number of scholars, including Papi and Hiver (2025a, 2025b), have begun to question this dominant view. Despite the field's increasing attention to conative and affective dimensions – such as motivation, engagement, self-regulation, and emotion – research has yet to provide a fully integrated picture of how learners behave and develop (Hiver and Papi 2020; Li, Hiver, and Papi 2022). This line of thinking challenges the image of learners as mere processors of linguistic input or producers of output, instead portraying them as agents who shape their own learning experiences using the affordances of the environment.

From a PLLT lens, learners are self-regulated agents who strategically manage their cognitive, emotional, and behavioral resources to reach their L2 learning goals. Zimmerman (2000) discussed self-regulated learning in relation to learners' ability to monitor, control, and adapt their learning activities in pursuit of personal goals. Relatedly, Teng and Zhang (2020) point out that self-regulated learning is a key feature of successful learning. From their perspective, proactive learning is best interpreted not simply as a response to classroom instruction, but as an intentional and strategic means for learners to regulate their own language learning. Parker and Collins (2010) argue that the successful pursuit of proactive goals is inherently dependent on the learner's self-regulatory competence, while Parker and Wang (2015) emphasize the role of metacognitive strategies – such as goal setting, needs analysis, and action planning – as fundamental components of proactive behavior. Extending this view to SLA, Papi and Hiver (2025a) proposed a view of SLA that aligns with the main tenets of the self-regulation approach while theorizing language learning based on the principles that SLA research has built over the last several decades since the inception of the field. In other words, instead of applying generic notions of self-regulation, Papi and Hiver (2025a) theorized L2 learning in a way that has the learner at its center and at the same time builds on a large body of research and theory specific to the field of SLA.

Building on this foundation, Papi and Hiver (2025a) articulate PLLT as a unified theoretical framework that integrates and identifies four interrelated behavioral dimensions that together constitute the core mechanisms by which learners strategically and purposefully engage with their environment for the purpose of language learning. These dimensions, which include *input-seeking*, *interaction-seeking*, *feedback-seeking*, and *information-seeking behavior*, position learners as active agents who navigate and shape their learning trajectories through intentional, goal-directed behaviors, while remaining responsive to the opportunities and constraints embedded in their sociocultural contexts. Papi and Hiver (2025a) argue that these learning behaviors are influenced by a host of individual and contextual factors. In addition, learner engagement in these behaviors can lead to qualitative differences in learners' L2 knowledge and skills. For instance, whereas oral input-seeking behavior is speculated to predict listening comprehension skills, interaction-seeking behavior is hypothesized to predict speaking skills.

Of the four proactive language learning components, only feedback-seeking behavior (FSB) has been the subject of empirical research. Papi et al. (2019) defined FSB as learners'

strategic endeavors to actively gather and use corrective feedback (CF) for the purposes of L2 learning. Building upon Ashford and Cummings' (1983) conceptual framework, Papi et al. (2019; 2020) proposed two principal dimensions for FSB. Feedback inquiry, which entails directly asking for feedback on one's language performance, and feedback monitoring, which involves paying attention to and trying to learn from CF in the learning environment. Studies have found that various motivational, affective, and instructional factors contribute to the quality and quantity of FSB among L2 learners (e.g. Mahbodi, Papi, and Wolff 2025; Papi et al. 2019, 2020). In addition, Papi, Abdi Tabari, and Sato (2024) found that feedback monitoring predicted L2 writing revision performance above and beyond the quality and quantity of written corrective feedback on L2 learners' writing samples.

According to Papi and Hiver (2025a), input-seeking behavior involves learners proactively engaging with varied input sources – including reading materials, audiovisual content, and classroom discourse – to drive their language development. Similarly, Papi and Hiver (2025a) defined information-seeking behavior as learners' efforts in seeking, engaging with, and using explicit L2 information (e.g. lexical, grammatical, phonological, pragmatic) for the purpose of L2 learning. Finally, interaction-seeking behavior is defined as 'learners' agentic and strategic efforts in seeking, creating, and using L2 interaction opportunities (e.g. hosting or attending social events, interacting with colleagues, participating in class discussions) for the purpose of L2 learning' (Papi and Hiver 2025a, 306). Given that the focus of the present study is on the notion of interaction-seeking behavior, the theoretical and scholarly background related to this notion will be delved into in the next section.

Interaction-Seeking Behavior

Interaction is considered one of the most important concepts in the field of SLA. The prominence of interaction is transparent in its key role in different theoretical approaches to SLA. One of the most influential strands of this research is the Interaction Hypothesis (Long 1996), which argues that interaction facilitates L2 acquisition by promoting negotiation for meaning – when communication breakdowns prompt speakers to modify language – by making input more comprehensible and drawing learners' attention to linguistic features that might otherwise go unnoticed. Through such modified input and feedback, learners not only process language more deeply but also begin to internalize forms that are contextually salient and socially functional.

Pica (1994) framed negotiation as the procedure that speakers use to adapt their language to close gaps in meaning. Such adaptation – whether with shifts in syntax, word selection, or phrasing – opens useful possibilities for students to process language less automatically and to gain a deeper understanding of how communication works. Gass and Varonis (1994) likewise revealed that negotiation sequences represent valuable input that generates language production, suggesting that interaction can help learners go beyond being receptive to being proactive with enhanced fluency. Ellis (1995) emphasized that verbal interaction renders the 'facts' of the L2 more salient, thereby supporting language learning through social engagement. From a socio-cognitive perspective, Atkinson (2011) asserted that 'the best way to promote SLA is to place the learner in situations where the L2 is necessary for social action' (144), a position that echoes decades of

research underscoring the role of interaction in L2 acquisition. From a sociocultural standpoint, learner agency has been framed as learners' ability to shape their own language learning experiences through active participation (Ushioda 2011; van Lier 2010). More recent PLLT research aligns with both positions; these views frame interaction-seeking as proactive, intentional behavior through which learners strategically pursue within and beyond their classrooms (Lambert, Aubrey, and Bui 2023; Papi et al. 2019).

Individual SLA approaches converge on the view that interaction is not merely a context for practice, but also a key channel through which a new language is acquired. It is through sustained, meaning-driven, and socially embedded exchanges that learners notice, test, and internalize new linguistic forms in the language (Andersen 1984; Atkinson 2011; Ellis 1995; Gass and Varonis 1994; Long 1996; Pica 1994; Sato 2015, 2017). Despite the sizable body of research to establish the value of interaction in SLA, the lion's share of the research still portrays interaction as an event virtually independent of the learners. This view tends to overlook the simple fact that interaction does not simply occur on its own and requires conscious and deliberate effort by the learners (Sato 2015, 2017). Without accounting for how learners actively pursue interaction as a resource for development, SLA research risks adopting an overly psycholinguistic view of SLA that may not have much relevance to how learners and teachers view L2 learning.

To fill the gap in understanding how interaction contributes to second language learning, Papi and Hiver (2025a) introduced the concept of interaction-seeking behavior, a construct that centers on L2 learners' active and self-directed efforts to seek, create, and use opportunities to interact in a L2 for the purpose of enhancing their proficiency. Rather than passively waiting for interaction events to occur, learners actively seek and use opportunities to join groups, find conversation partners, participate in class discussions, collaborate with others, or use online resources to enhance their interactive skills. The primacy of learner proactivity over the context is more apparent in the study-abroad context, where many learners fail to benefit from the abundance of L2 learning opportunities (Isabelli-Garcia et al. 2018; Paradowski et al. 2022; Tseng et al. 2021).

Papi and Hiver (2025a) argue that it is not the context but rather learners' engagement in seeking and using interactional opportunities, that is, their interaction-seeking behavior, that can lead to the enhancement of L2 skills. The concept of interaction-seeking behavior provides a holistic view of how interaction contributes to L2 acquisition inside and outside the classroom and highlights the active role that the learner plays in this regard. Given the scarce body of research available so far, this current study is a significant early attempt to identify how a group of international students who use and learn English as a second language in the US engage in seeking, creating, and using interaction opportunities to enhance their English skills. Through the analysis of interaction-seeking, this research makes a preliminary attempt to explore and identify different dimensions of the concept of interaction-seeking behavior in SLA and establish a foundation for further investigations in this area.

Research Questions

Given the gap in the literature regarding empirical work on the notion of interaction-seeking behavior in L2 learning, the present study aims to address the following research questions:

- (1) How do international graduate students who speak English as a second language actively identify, seek, and create opportunities for interaction in English, in the context of the United States?
- (2) How do they utilize these interaction opportunities to enhance their English skills?

Together, these questions aim to understand both the process of seeking interaction opportunities and the ways learners capitalize on those opportunities to further their L2 development.

Methods

Participants

This study employed convenience sampling to recruit 10 Iranian graduate students residing in the United States. All participants were enrolled in doctoral programs at a North American university and held positions as research assistants, teaching assistants, or both. They varied in academic discipline, length of residence in the U.S., and ranged in age from 27 to 37. All the recruited participants were from Iran. Iranian participants were recruited primarily because they shared a common native language (Persian/Farsi) with the first author, who also conducted the interviews. In addition, as international graduate students, all participants had already satisfied the university's English language proficiency requirements (IELTS ≥ 6.5 or TOEFL iBT ≥ 80), ensuring a comparable minimum level of English proficiency across the group, ranging from intermediate to upper-intermediate. After excluding one participant due to incomplete interview responses, Table 1 presents the demographic information of the remaining participants.

Data Collection

This study was conducted using a qualitative research approach, which involved semi-structured oral interviews as our method of data collection. The selection of semi-structured interviewing was consistent with qualitative research principles, which focus on flexibility and richness of data, while also maintaining the structured framework of the interviews (Cohen, Manion, and Morrison 2002; Rose, McKinley, and Briggs Baffoe-Djan 2019). These interviews provided a naturalistic and extensive examination of the ways that ESL learners seek and use interaction opportunities within the everyday environments where English is spoken. Instead of following a rigid and pre-planned series of prompts that elicited short responses, the questions in the interview invited the

Table 1. Summary of participant demographics.

Variable	Category	<i>N</i>
Gender	Male	6
	Female	4
Age	27–30	4
	31–37	6
Field of Study	Engineering & Computer Science	7
	Life & Social Sciences	3
Length of Stay	1–2 years	3
	3–5 years	7

participants to think freely about their interactional patterns and experiences. The flexibility that these semi-structured interviews offered also allowed the researchers to posit several follow-up questions and elicit new ideas and insights during the interviews. In addition, it provided a comfortable environment for the participants to converse naturally.

Interviews began with broad, grounded questions related to participants' approaches to building proficiency. As the interviews progressed, the scope of questioning narrowed; participants were asked to elaborate on specific scenarios or instances where they engaged in interactions and drew learning opportunities from those encounters – whether academic, social, or spontaneous. The interviews allowed participants to share not only what interaction behaviors students exhibited, but also why and how they made specific decisions within a broad variety of interactional situations.

To ensure clarity, comfort, and expressive depth, all interviews were conducted in person and in the participants' native language, Farsi. Each interview was audio-recorded with participants' consent and transcribed verbatim to maintain the authenticity of participants' responses. Finally, the interview excerpts were translated into English by the researcher who conducted the interviews to maintain conceptual fidelity of the data. The recording as well as the transcription was safely secured, and the identifiable information was removed based on applicable ethics research practice. Interview questions and protocol are provided in the Supplementary File.

Research Ethics & Researchers' Positionality

At the beginning of the study, the participants were given thorough information about the purpose of the study, data collection procedures, and the anonymity and confidentiality of the data. The participants were briefed on the intent as well as the scope of the interview and its expected duration. The voluntary nature of the study was highlighted by establishing their rights to decline, pause, or withdraw from the study at any time without any consequences. They were told that with their permission, the recording would be audio-recorded without collecting any information about the identity of the participants and that they could refuse to be recorded or request modifications at any given moment in the course of the procedure.

The interviews were conducted by the first author, who had the same nationality and linguistic and cultural background as the research participants. This familiarity lowered the barrier to building rapport with participants during the interviews so that they could freely speak about their interactional experiences. However, this proximity had its own set of drawbacks. For instance, there was a possibility that the participants would refrain from giving experiences that were perceived to be sensitive or inappropriate from an Iranian cultural perspective. To minimize the risk, the researcher strived to remain objective and open and to make the participants feel welcome to freely share their experiences during the interviews. The participants were also informed that they can refuse to answer any questions they are not comfortable with. In addition, they were informed about the various measures taken to secure the confidentiality and privacy of the data. The interview settings were conducted at private and secluded locations so that interaction could take place seamlessly throughout the interview.

Data Analysis

The interview data were analyzed with thematic analysis, an adaptable qualitative procedure to identify and interpret the meanings/patterns of meanings of textual data (Braun and Clarke 2006, 2019). Considering that the study's goal was to investigate ESL learners actively seeking and using interaction opportunities to facilitate L2 development, thematic analysis offered a versatile framework to delve intensively into the narratives of the participants. This research used a hybrid analytical strategy, combining manual, inductive coding with organizational and data management features provided by NVivo 14. The initial phase of analysis started with familiarization with the data, in that the interviewer tape-recorded the interviews verbatim, re-read the transcripts several times, and made records of preliminary impressions and possible codes in analytic memos. Manual line-by-line coding then permitted themes to develop spontaneously from the participants' words. The earlier codes were subsequently collated together in wider categories, utilizing color-coding and marginal notes to track across individual interview patterns. After doing manual coding, the entire transcripts were imported to NVivo 14, in which the original codes were re-created as nodes. It is important to note that NVivo was not utilized to produce new themes or to computer-aided interpretation but to organize the coded data, compare the same, refine the data as well as produce visual representations of the relationship between the codes. Theme development was based on Braun and Clarke's (2006, 2019) six-phase framework, which was an ongoing process that required reviewing, defining, and naming the themes. The analysis represented an iterative process with the researcher continually going back to the transcripts in order to refine the parameters of each theme and verify internal stability and coherence across themes. NVivo's memo and annotation functions were used to document analytic decisions, support reflexive engagement, and link illustrative quotes directly to thematic categories. Three of the interview transcripts were also coded by a second rater, which led to excellent interrater reliability (Cohen's Kappa = .815, $p < .001$).

Findings & Discussion

This study explored how adult ESL learners exhibit proactive behaviors in the pursuit of opportunities for interaction within communicative situations in English-speaking contexts. The thematic analysis of 10 in-depth interviews yielded overarching themes that collectively account for the proactive measures taken by learners in relation to their interaction experiences: Proactive Interaction Seeking, Proactive Interaction Engagement, and Proactive Interaction Monitoring. Each theme is supported by specific patterns of learner behavior, situated examples, and representative quotes from the data. In the following section, these findings are discussed through the lens of previous SLA research and theory.

Proactive Interaction Seeking

The initial significant theme encompasses students' attempts to look for or create chances for interaction in English. The participants in this research kept actively looking for opportunities for interaction in many different situations, such as in public events and volunteer

activities, on the Internet, showing a fundamental principle of PLLT – that learning the language is driven by an active learner. All participants showed an awareness that it's necessary to move beyond incidental exposure and undertook conscious efforts to place themselves into interactional events across three major contexts: social and public events, community involvement, and digital interaction platforms.

The participants reported going to social and public events to interact with English users. One of them noted, 'I go to cultural festivals and university-organized networking events where I also take the time to approach strangers of diverse backgrounds' (P3), while another shared, 'I attend conversation events at the university, like International Coffee/Happy Hour' (P1). Not only did such places provide real-life social and cultural resources, but they also provided opportunities for immersion in authentic interactive L2 environments. These interactions ranged from opportunities to network with colleagues and students from other departments to casual meetups with international friends that fostered greater communicative experience and confidence.

The students also actively looked for interaction opportunities in community-oriented activities like volunteering or language exchange programs that involved longer-term investment and provided more long-term opportunities for the participants to interact within a more dedicated group. These contexts created opportunities for reciprocal learning through L2 interaction. One learner commented, 'I enrolled in a language exchange program where I help someone in learning Persian and they help me with English' (P5), which points out the mutually beneficial aspect of such activities. Being involved with such programs provided a more organized and regular setting for the individuals to make meaningful contributions to the community while expanding their L2 communicative repertoire.

Digital platforms also featured significantly in interaction-seeking. Spaces like Facebook, Telegram, Instagram, and online student groups provided sites for informal exchange. As one participant noted, 'I'm part of a few online groups for students where we discuss assignments or even random topics, and that's been really helpful for practicing English informally' (P7). Notably, such participation was not passive; learners actively sought out such spaces and interaction opportunities on digital platforms. One participant noted, for example, 'Once, we made a Telegram group for our project, and I usually send voice messages in English. Later, I listened to myself again to see if I was clear or not. Sometimes it sounds weird, so I think of a better way to say it next time or edit my message immediately' (P10). Digital platforms, thus, provided flexible sites for conversational practice in unstructured, organic ways.

In sum, all 10 participants engaged in at least one form of proactive interaction seeking. Social and public events emerged as the most frequently utilized avenue, cited by all participants, followed by community involvement and digital interactions, which also featured prominently, each reported by nine participants. This pattern underscores the diverse range of contexts through which the learners strategically pursued opportunities for meaningful English language use beyond formal instructional settings.

These behaviors substantiate PLLT's claim that proactive learners do not merely respond to opportunities but deliberately engineer and regulate their interactional experiences (Papi and Hiver 2025a). Such behaviors align with findings from Lambert, Aubrey, and Bui (2023) and Sato (2022) showing that learners strategically utilize interactional resources for L2 development. Importantly, the study supports the notion that

reactive exposure to interaction is perceived by these learners as insufficient for L2 development. This echoes findings from study abroad research showing that learners do not automatically benefit from immersion by their mere placement in an L2 context; rather, those who demonstrate initiative and strategic engagement gain more (Isabelli-Garcia et al. 2018; Paradowski et al. 2022; Tseng et al. 2021). In this study, even in environments rich with potential for interaction, learners had to take responsibility for initiating and sustaining these opportunities – confirming that interaction is a mediated and regulated process.

Proactive Interaction Engagement

The second theme focuses on how learners behaviorally engage with the interactional situations they have sought or were required to be in. Rather than viewing access to interaction as a final goal, participants saw it as a way to actively use the language. This theme highlights their efforts to use available academic discussions, peer interactions, and conversations with native speakers as opportunities for practicing and improving their English skills.

In academic contexts, learners consistently took on agentive roles within group work and discussion-based classes. A student reflected, ‘I practice English by starting a group discussion during study time, by summarizing the key points, and by ensuring all understand the topic’ (P2). Such efforts went beyond passive presence or reaction in required contexts; rather, they highlight learners’ proactive attempts to utilize the situations for L2 interaction practice and enhancement.

Equally tapped were the unstructured and informal peer interaction opportunities. Users recognized the linguistic potential embedded in free conversation before and after class, in research labs, during breaks, or at student lounges. ‘I casually chat in breaks with my lab friends, discussing research and providing personal experiences to gain academic and colloquial English’ (P4). Another learner mentioned, ‘I practice when discussing things to classmates before the lecture’ (P8), highlighting the fact that day-to-day contacts yielded sustained and cumulative environments for building fluency.

A particularly salient site of engagement was communication with native speakers of English. Students reported intentionally attending social events where they would need to use English, often viewing these settings as rare and valuable opportunities for L2 interaction. One participant shared, ‘Even in semi-official parties such as a birthday party, if there’s at least a non-Iranian guest, everyone switches to English for a show of respect and practicing purpose.’ (P3). These sites, in turn, were marked by their informality, cultural immersion, and unpredictability, which was fertile ground for developing pragmatic and sociolinguistic skills.

Overall, all 10 participants demonstrated proactive engagement in interactional opportunities. Informal peer interactions and native speaker conversations were universal, reflecting the centrality of these contexts in learners’ everyday language use. Academic interaction was also a key area, with 9 participants using formal academic settings to expand their communication practice and improve their L2 proficiency. These results show that learners not only looked for but also deliberately used existing opportunities for interaction across academic, informal, and intercultural environments. By no means did the participants just undertake interaction – they leveraged it. Through either

participating in group discussions, engaging in small talks, or navigating intercultural conversations, students undertook interaction with an orientation toward L2 development, although other goals were also pursued at the same time (e.g. discussing a lab-related topic). These findings confirm the notion that active engagement does not always mean that the opportunities are learner-created; sometimes, proactive students convert existing interactive events into practice opportunities (DeKeyser 2007; Papi and Hiver 2025b).

Proactive Interaction Monitoring

The third and final theme captures how learners critically monitored, analyzed, and adjusted their language use before, during, or after English-language interactions for continued L2 development. This process, labeled proactive interaction monitoring, encompasses learners' cognitive and metacognitive engagement in evaluating, analyzing, and iteratively adjusting their interactional behavior through making and testing new hypotheses. It includes two subthemes: interaction analysis and adjustment.

In interviews, participants discussed in detail how they benefited from the processes of real-time or retrospective analysis of interactions. They mentioned noticing and evaluating their use of lexical expressions, patterns of grammar, and differences in pronunciation that they remembered in mind for future use. One participant mentioned, 'After almost every conversation, I mentally replay it. I analyze: Did I choose the right words? Was my grammar smooth? Did I hesitate too much?' (P6). Another learner explained, 'Sometimes native speakers structure things so simply compared to how I learned. When I notice that, I make a mental note, and later I try to practice saying it their way because it usually sounds more natural' (P7). This process often included adjustment, where learners formed and tested mental hypotheses and adapted their L2 behavior based on perceived norms or information. For example, one participant noted, 'Sometimes while I'm speaking, a word feels too formal or a structure feels weird ... later I check the phrase on Google or YouGlish' (P8). Others described mentally rehearsing new expressions and testing them in future conversations to gauge appropriateness and fluency, for instance, 'I once tried using 'lowkey' ... and it got a laugh. That told me it fit.' (P6).

The 10 participants all practiced proactive monitoring of their interactional experiences, which involved interactional analysis and adjustment. Interaction analysis was mentioned by 8 participants and 7 participants mentioned adjustment. Interaction analysis seemed slightly more frequent, but both features of monitoring indicate learners' reflective and systematic dealing with their L2 usage. These results confirm the pivotal position of the process of analysis and adjustment in proactive L2 learning, since the former allows the learners to assess the accuracy and appropriacy of their L2 use and the latter to fine-tune the linguistic knowledge and to adapt their L2 use for specific communicative objectives. This theme reminds one of Schmidt's (1995) Noticing Hypothesis, which described the moments when learners noticed mismatches between their usage and that of native speakers, which motivated the learners to bridge those gaps through experimentation with language. In addition, the notion of adjustment is conceptually similar to the notion of hypothesis testing, which is considered one of the functions of L2 output, and can lead to the development of learners' interlanguage competence (Swain 1985).

Interaction monitoring highlights learners' metacognitive engagement with language (Raoofi et al. 2014; Ruiz de Zarobe and Smala 2021; Sato 2024). Participants reported routinely reflecting on their performance, evaluating word choice, fluency, and conversational success, forming new hypotheses about how L2 elements work, and putting those hypotheses to the test. These behaviors resonate with the reflective and self-evaluative dimensions of PLLT and further emphasize how learners manage their L2 development over time (Papi and Hiver 2025a). The notion of monitoring is central to proactive L2 learning. For instance, as a subcomponent of the notion of feedback-seeking behavior (Papi et al. 2019), feedback monitoring has been found to be associated with more adaptive motivational (e.g. Papi et al. 2019, 2020) and contextual variables (e.g. Mahbodi, Papi, and Wolff 2025) and has been an important predictor of L2 writing performance (e.g. Papi, Abdi Tabari, and Sato 2024). Monitoring is also a central component of self-regulated behaviors (Andrade and Evans 2012; Zimmerman 2000), has been shown to facilitate feedback internalization, noticing, and linguistic refining (Ellis 2008; Kormos 2006; Mackey, Gass, and McDonough 2000) and has been associated with moment-by-moment interactional adjustments (Gass and Mackey 2014; Oxford 2017).

Overall, proactive interaction monitoring reflects learners' strategic and goal-directed attention, evaluation, and modification of their own L2 use. It bridges lived interactional experience with strategic learning behaviors, reinforcing the central claim of PLLT that learners are not merely users of language but strategic architects of their own linguistic trajectories.

General Discussion

SLA research has consistently highlighted interaction as a key force in language development. Early theoretical perspectives, such as the Interaction Hypothesis (Long 1996), have highlighted negotiation of meaning and modified input as key mechanisms through which interaction supports language acquisition. In research on L2 interaction, researchers usually focus on a specific interactional event to explore what interactional moves, strategies, or techniques are used to negotiate for meaning and communicate effectively (e.g. Gass and Varonis 1994; Pica 1994). While such an analytic lens can open our eyes to the nuances of interactive events, it ignores and downplays how learners habitually engage in consistent interactional activities to succeed at learning a language. To bridge this gap in SLA research and interaction, the present study took an initiative to explore the notion of interaction-seeking behavior in L2 learning (Papi and Hiver 2025a) and provide preliminary empirical evidence that could inform an initial attempt to conceptualize the notion.

The thematic analysis of interview data from 10 international graduate students using and learning English in the context of the United States suggests that L2 interaction-seeking behavior can be understood along three main dimensions. The first dimension concerns learners' active seeking of opportunities for interaction, which was labelled proactive interaction seeking; the second dimension concerns students' behavioral engagement in those interaction opportunities; and finally, interaction monitoring involves reflecting on and analyzing one's interaction patterns, and making adjustments perceived as necessary. Traditional interaction research has only been concerned with the third dimension of this interaction-seeking model, that is, for instance, how learners

notice gaps in their interlanguage or form linguistic hypotheses based on their L2 use experiences (e.g. Schmidt 1995). The PLLT perspective on interaction offers much more than these cognitive nuances. It outlines how learners take strategic action to seek and find opportunities for L2 interaction, engage in those opportunities, and use them not only as a space for receiving comprehensible input but also to evaluate and analyze their own interactional patterns and make adjustments based on their interactional successes or failures. Interaction-seeking behavior, thus, provides a more holistic and ecologically valid lens for the study of L2 interaction than the traditional cognitive-interactionist perspective. This claim is based on the argument that such a learner-centered perspective not only taps into more than the cognitive dimensions of L2 interaction but can also be empirically leveraged to investigate students' success or failure in achieving L2 interactional skills and L2 speaking proficiency. In addition, interaction-seeking behavior can be studied in relation to various individual and contextual factors. Researchers can examine what individual or contextual differences can enhance or inhibit such behavior and develop interventions that can promote such an important learner behavior.

The findings of the study confirm that interaction-seeking behavior does not necessarily refer to all the activities that are learner-initiated (Papi and Hiver 2025b). Even though our participants generally focused on experiences most useful to them in enhancing their English competence, they also shared interactional experiences in which they only responded to interactional demands, such as required class activities, interactions with supervisors, and the like. The participants demonstrated proactivity by strategically engaging with such situations, leveraging their affordances for interacting, monitoring, and adjusting their interaction patterns. In this sense, proactivity extended beyond initiating interactions to include the ways in which learners used or capitalized on the opportunities provided by external circumstances. This distinction underscores PLLT's emphasis on learner agency as a dynamic process, visible not only in the seeking and creation of opportunities but also in the transformation of routine exchanges into meaningful learning experiences.

Relatedly, not all interactional events that our participants engaged with were motivated solely or even originally by the conscious aim of improving L2 proficiency. Some described engaging in interactions for reasons such as enjoyment, affirmation, or social belonging, while still using these encounters as opportunities to refine their language use. In other words, our findings confirm that PLLT does not reduce interaction to utilitarian motives. Rather, it recognizes that 'the goals and motives behind learning behavior as being learner-driven, diverse, dynamic and interrelated' (Papi and Hiver 2025a, 2025b, p. 339). For example, attending a cultural event to make friends or joining a group discussion for academic or social purposes simultaneously afforded opportunities to experiment with new vocabulary, refine pragmatic behaviors, and monitor fluency. This highlights the dual social and developmental functions of interaction and underscores PLLT's contribution in foregrounding learners' 'agency in transforming any interaction – whether driven by survival needs, social alignment, or self-expression – into an opportunity for growth' (Papi and Hiver 2025a, 2025b, p. 339).

It is also noteworthy to mention that notable variation was observed across participants in terms of the degree to which they sought, engaged in, and used interaction opportunities for L2 learning. While we identified proactive interaction-seeking patterns

that were shared across all participants, the quality and quantity of these behaviors varied from participant to participant. Such variation appeared to be shaped by both contextual factors, such as the availability of interactional opportunities, as well as individual characteristics, including learners' personality, goals, motivations, and readiness to capitalize on those opportunities, which need to be explored in future studies (Papi and Hiver 2025a, 2025b).

These findings contribute to ongoing theoretical debates surrounding PLLT. Atkinson (2025) has critiqued PLLT for overemphasizing individual agency while neglecting the sociocultural and power-laden constraints that shape language use. However, the current study offers empirical counterpoints that support Papi and Hiver's (2025a, 2025b) position. For the learners in the study, agency was exercised in social contexts, not in social isolation. The strategic behaviors were influenced by different contextual layers, such as the availability of opportunity, social identity, and the local sociolinguistic environment. This perspective aligns with PLLT, highlighting the relational nature of proactivity in L2 learning. Further, these findings confirm the main tenets of the sociocultural perspective (Lantolf 2011), which highlights the socially mediated aspect of learning in the interactional context. The strategic participation of the participants in the interactions among peers, communities, and the digital environment shows how the learning tends to be socially scaffolded and situated in the interactional context.

Conclusion

The findings of this study provide preliminary empirical evidence for understanding interaction-seeking behavior as a dimension of PLLT (Papi and Hiver 2025a). The analyses of the interview data led to the emergence of three integrated dimensions of L2 interaction-seeking behavior, including Proactive Interaction Seeking, Engagement, and Monitoring, which highlight learners' central role in the interaction process. The findings support the core claim in PLLT that learners are proactive agents who strategically seek, create, and use interaction opportunities in the service of enhancing their oral L2 skills. This study offers insights into how learners leverage various L2 interactional affordances existing in the social settings to situate themselves in interactional contexts, use the opportunities to engage their interactive skills, analyze their interactional behavior, and adjust L2 use based on their performance. The three-phase model of seeking, engaging in, and monitoring interactions defines an initial model of interaction-seeking behavior that builds a foundation for further empirical exploration and theoretical analysis and refinement.

Limitations & Future Directions

This study included a sample of Iranian graduate students using and learning English in the United States who were also willing to participate in this study, which diminished the variety of experiences and patterns of interaction covered in the study. This line of research can continue by including learners of different linguistic and cultural backgrounds learning a variety of target languages in different L2 contexts. The role of the context is especially critical as different macro, meso, and micro contexts vary in the interactional affordances that they offer. For instance, learners may face various resources,

opportunities, and limitations across contexts such as K-12 schools, bilingual schools, ESL contexts, EFL classrooms, and heritage language programs.

The researchers carefully designed questions to mirror nuanced aspects of interaction-seeking behavior. However, at times, interviewees found questions to be similar in content and responded similarly to them. Consequently, the interviewing researcher used examples to clarify questions, with a potential risk of asking slightly leading questions. Despite all efforts to eliminate this effect, such instances may have potentially influenced the interviewees' responses. Future research could incorporate member-checking by participants to maintain the essence of original views and add credibility to the findings.

The current study provides a qualitative lens for an in-depth understanding of learners' interaction-seeking behavior. The findings of this study can function as a theoretical foundation for the development of a questionnaire for examining interaction-seeking behaviors in a quantitative manner. The tool would give the researchers the chance to investigate the prevalence and frequency of these behaviors among different learner populations. In addition, it offers the opportunity to investigate individual differences and contextual predictors as well as the learning outcomes of these behaviors.

Pedagogical Implications

From the perspective of pedagogy, the research findings suggest that interaction-seeking can be cultivated both within and beyond the classroom. In the classroom, teachers can raise learners' awareness of interaction-seeking behaviors ranging from seeking opportunities to monitoring and using them for learning purposes. They can plan specific times for interaction-seeking (e.g. English-only social time) and design tasks to promote meta-cognitive monitoring of one's interactional behavior, as well as opportunities for reflecting on one's previous L2 interaction and making adjustments in one's L2 use. Outside the classroom setting, teachers can also develop projects that encourage students to engage with the community, participate in public events and social activities, and use online platforms that provide opportunities for L2 interaction. By developing the instructional tasks, activities, and projects that afford interaction-seeking opportunities, teachers can facilitate learners' proactive engagement in L2 interaction.

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