Pedagogy Review

ISSN: 3025-6771 | Journal's DOI: 10.61436/pedrev

Homepage: https://imrecsjournal.com/journals/index.php/pedrev

Contrasting Private Speech and Collaborative Dialogue: A Multiple Case Study of Languaging Patterns Among Indonesian University EFL Learners

Sya'baningrum Prihhartini*, Lea Santiar, & Harni Kartika Ningsih

Department of Linguistics, Universitas Indonesia, Indonesia

ARTICLE INFO

Article History:

Received: 04 October 2026

Accepted: 01 November 2026

Published: 11 November 2026

Keywords:

Languaging;
Collaborative dialogue;
Private speech;
SFL

Corresponding Author:

syabaningrum.prihhartini31@ui.ac.id

ABSTRACT

To provide a better learning experience that allows learners to become active participants in their learning journey, this study introduces languaging (Swain, 2006) to an Indonesian classroom. Using Vygotsky's Sociocultural Theory (SCT) as the backdrop and Martin and Rose's Systemic Functional Linguistics (SFL), this multiple case study contrasted the cognitive processing of two female dyads with asymmetrical and symmetrical proficiency during collaborative dialogue and private speech tasks. The analysis revealed that Reasoning (R) and Confirming (C) were the most dominant languaging types, with symmetric pairs achieving more balanced roles and more fluid Primary Knower moves. In conclusion, while peer dynamics and proficiency configuration significantly shape collaborative interaction, individual private speech remains an essential autonomous tool for self-regulation, highlighting the distinct pedagogical value of both tasks in EFL classrooms.

To cite this article:

Prihhartini, S., Santiar, L., & Ningsih, H. K. (2026). Contrasting private speech and collaborative dialogue: A multiple case study of languaging patterns among indonesian university EFL learners. *Pedagogy Review*, *5*(4), 654-666. doi: https://doi.org/10.61436/pedagogy/v5i4.pp654-666

This is an open access article under the CC BY SA licence (https://creativecommons.org/licenses/by-sa/4.0/).

■ INTRODUCTION

In EFL classrooms worldwide, especially in Indonesia, teachers have worked to move away from traditional, one-way teaching methods (Marcellino, 2008; Murtiningrum, 2009), where students mostly receive knowledge passively (Darwin & Saputra, 2024). One key approach is "languaging" (Swain, 2006), where learners express their thoughts to build understanding and internalize what they learn. Languaging can happen through collaborative dialogue (Storch & Alshuraidah, 2020; Watanabe & Swain, 2007), private speech (Anani Sarab & Gordani, 2015), or written notes (Ishikawa & Suzuki, 2023; Suzuki, 2012), and research shows it helps facilitate L2 development. It gives students chances to check their own output, notice language gaps, test ideas, and reflect on language use. Swain (2006) calls this process "coming-to-know-while-talking."

Languaging is based on Sociocultural Theory (SCT), especially Vygotsky's (1978, 1987) ideas about higher mental development. Vygotsky believed that cultural tools shape higher mental functions, with language as the main tool. In this view, thoughts and words are not the same; turning thoughts into language changes and reshapes them (Vygotsky, 1987). As a result, speaking or writing lets people express their thinking and create something they can reflect on later (Smagorinsky, 1998). Vygotsky (1987) argued that higher mental functions first appear in social situations and then become internalized. Social interaction initiates cognitive processes, often with help from a More Knowledgeable Other (MKO) such as parents, teachers, or peers (Vygotsky, 1978). During these times, learners use speech directed at others. Afterward, they may talk to themselves (private speech) to manage their thinking before fully internalizing ideas as inner speech. This process acts as scaffolding (Wood et al., 1976) and helps learners reach their potential in the Zone of Proximal Development (ZPD) (Vygotsky, 1978).

Beyond language as a psychological tool for deeper understanding, another crucial concept in Sociocultural Theory (SCT) concerns the process of cognitive development. According to Vygotsky (1978), cognitive development occurs twice: first in the social realm (intermental) and subsequently in the personal realm (intramental). In the social realm, development occurs through interaction or dialogue with others and is then internalized into the personal realm as learners adopt mediational tools to regulate their actions (Swain et al., 2015). This internalization process represents an "outside-in" trajectory, moving from the external to the internal (Suzuki, 2009).

As this process shifts from external to internal, the type of speech involved changes accordingly. Within the intermental realm, individuals interact using "social speech",

speech directed toward others (Vygotsky, 1987). In the intramental realm, learners internalize knowledge, first through private speech and then through inner speech (Vygotsky, 1987). Both forms constitute self-directed speech, with inner speech described as a "…fully internal, silent verbal thought" that exists entirely within an individual's mind (Winsler, 2009, p. 1). In the context of second language acquisition, specifically through the process of "languaging", cognitive development occurs interpersonally within collaborative dialogues, whether with peers or instructors. Through such collaborative dialogue, a learner can gain new understandings, which they then use internally to construct or reconstruct prior understandings. In this way, internalization occurs (Swain, 1997).

Although Vygotsky's theory was based on children, it also applies to second language learning. When tasks are challenging, L2 learners often use private speech to manage their thinking. Swain (2006) notes that speaking out loud, whether to others or themselves, helps learners notice language problems and understand difficult material. Speaking also helps them organize and rethink what they already know, which supports learning (Swain, 2006). Languaging mainly appears as collaborative dialogue (Storch, 2008), private speech (Watanabe, 2020), and written notes (Ishikawa, 2013; Suzuki, 2012). Research by Swain et al. (2009) found that students who used languaging often gained a better understanding of grammar and scored higher on tests. Kazemi et al. (2022) also found that task type affects how much and what kind of languaging occurs. However, studies have also highlighted important challenges. Watanabe (2020) found that some learners struggle to stay focused on the task while talking to themselves, suggesting they need more practice handling two tasks at once.

When it comes to pair work, research results are mixed. Storch (2021) found that how pairs interact strongly affects collaboration and recommends pairing students with similar skill levels to avoid one person dominating. In contrast, some studies show that intermediate learners can benefit greatly from working with more advanced peers (Watanabe & Swain, 2007), highlighting the importance of proficiency in group work. To better understand how social interaction leads to shared or uneven cognitive work, this study also uses Systemic Functional Linguistics (SFL), especially the Exchange Structure framework (Martin & Rose, 2007). While Sociocultural Theory explains how higher mental functions develop, SFL helps analyze dialogue structure, such as who provides knowledge (Primary Knower, K1) and who asks for confirmation (Secondary Knower, K2). By combining SFL with Swain's (2006) cognitive framework, we can examine both conversational power dynamics and the thinking processes during languaging tasks.

Although international research on this topic is extensive (e.g., Brooks et al., 2010; Ishikawa, 2018; Kazemi et al., 2022; Moradian et al., 2017; Watanabe, 2020), studies in Indonesian ELT classrooms remain rare. Beyond this geographical scarcity, Indonesian classrooms present distinct pedagogical and sociocultural challenges, making research on languaging particularly crucial. Historically influenced by traditional, teacher-centered paradigms (Marcellino, 2008; Murtiningrum, 2009), Indonesian learners often exhibit ingrained reticence and structural passivity during group work, where lower-proficiency students frequently defer entirely to higher-performing peers rather than actively co-constructing knowledge. This cultural and interactional backdrop suggests that when Indonesian learners are exposed to collaborative dialogue versus individual private speech, the distribution of cognitive workload and the trajectory of self-regulation may differ from Western contexts, where collaborative learning norms are often more egalitarian.

A key gap remains: while past research has examined collaborative dialogue (Storch, 2021) and private speech (Watanabe, 2020) separately, few studies compare both in the same classroom. Most research uses single, short-term activities (Bao, 2020; Ishikawa & Suzuki, 2023) that show only immediate effects and do not reveal how private speech (self-regulation) differs from collaborative dialogue (social co-construction) over time. To fill this gap, this study introduces languaging (Swain, 2006) in an Indonesian university classroom and compares the cognitive and communication roles of private speech and collaborative dialogue. The study is guided by these research questions:

1. To what extent do cognitive functions of languaging (Noticing, Reasoning, Confirming, Evaluating, Insight) vary between individual private speech and collaborative dialogue?
2. How do proficiency configurations within peer dynamics influence the distribution of cognitive workload and individual participation during collaborative languaging?

■ METHOD

Participants

This study utilized a qualitative multiple-case study design as part of a larger ongoing investigation. The wider population comprised

undergraduate students enrolled in an English for Professional Purposes course at an Indonesian university. From this broader cohort, we purposively selected four female undergraduate students majoring in Communication Studies because they showed unique interactional dynamics when comparing their collaborative dialogue with their individual private speech. From the larger study, we excluded the male participant because of inadequate speech data (recordings were less than two minutes), resulting in an all-female sample. We set a threshold requiring collaborative dialogue recordings to be at least five minutes long to ensure sufficient data for detailed discourse and LRE analysis. Before data collection, we followed institutional ethical protocols: all participants provided written informed consent and completed a demographic and linguistic profile questionnaire (see Table 1).

Table 1. Demographic and linguistic profile of participants

Participants	Age	Gender	L1	L2 productive skills use	L2 receptive skills use	Observed Proficiency
M1	20	F	Indonesian	Rare	Often	A2
M2	20	F	Indonesian	Rare	Very often	B1
M7	20	F	Indonesian	Rare	Often	A2
M8	21	F	Indonesian	Rare	Often	A2

***Note**: Proficiency levels (A2 and B1) were based on teacher evaluations, classroom performance, and formal examinations aligned with CEFR standards.

Research Design and Procedures

This study adopted a qualitative multiple-case study design to investigate peer interaction and cognitive processing. The step-by-step data collection procedures spanned the semester, consisting of two distinct language sessions: (a) Collaborative Dialogue Session (Text Identification Task, Week 4): Participants worked in pairs to analyze and identify specific sentence structures within a target text. To capture authentic interaction and minimize researcher intrusion, each pair's verbal exchanges were audio-recorded via a smartphone placed on their desk. (b) Private Speech Session (Self-Explanation Task) performed in Week 9 of the course: Conducted individually following explicit teacher-fronted instruction, participants were instructed to verbalize their understanding aloud. This self-explanation task aimed to help them self-regulate and consolidate the newly introduced grammatical concepts. The total duration of the recorded sessions and their corresponding target linguistic structures are summarized in Table 2.

Table 2. The length of recorded data and the target structure

Participants	Collaborative dialogue		Private Speech	
	Length	**Target structure**	**Length**	**Target structure**
M1	00:13:58	Imperative sentence	00:08:18	Past Simple, Prepositions of time
M2			00:06:36	
M7	00:08:33		00:06:46	
M8			00:05:27	
Total length	**00:49:38**			

A key methodological consideration is task sequencing across weeks: we examined imperative sentences in Week 4's collaborative dialogue, whereas Week 9's private speech used past tense and time prepositions. While this five-week interval and structural shift introduce potential variables in task difficulty and learner maturation, we intentionally maintained this design to preserve high ecological validity within the naturalistic syllabus. To ensure high

ecological validity and direct relevance to the participants' academic context, the tasks were tailor-made to align specifically with the official course syllabus and the specific learning outcomes of their study program. Rather than utilizing standardized or decontextualized prompts, the target structures and text materials were carefully integrated into the curriculum, allowing learners to engage with meaningful, content-appropriate material while externalizing their cognitive processes through languaging.

Instruments

The primary instruments consisted of pedagogical tasks (text identification and self-explanation tasks) designed and adapted from the institutional curriculum to match course learning outcomes. To ensure construct validity and reliability in measuring cognitive processing, the study employed a validated two-tier analytical framework: Martin and Rose's (2007) Exchange Structure for interactional moves, and Swain's (1995) output hypothesis, Shehadeh's (2003) hypothesis testing, and Stuyck et al.'s (2021) Moments of Insight for cognitive LRE categories.

Data Analysis

The segmented dataset was analyzed using a two-tier approach. First, to trace how knowledge authority was distributed, we parsed the verbatim transcripts using Martin and Rose's (2007) Exchange Structure framework to identify Primary Knower (K1) and Secondary Knower (K2) moves. Second, within these exchange structures, we segmented utterances into Languaging-related Episodes (LREs) and coded them using Swain's output hypothesis (Swain, 1995), hypothesis testing (Shehadeh, 2003), and Moments of Insight (Stuyck et al., 2021). Table 3 displays the two-tiered coding procedure. To safeguard against forced coding, any utterances unrelated to language cognition or consisting solely of repetitive word tokens were labeled as none (-).

Table 3. Thematic coding framework and the two-tiered discourse analysis

Sample of expressions	Operational Definition & Keywords	SFL Exchange Tier (Martin & Rose, 2007)	Cognitive LRE Tier (Shehadeh, 2003; Stuyck et al., 2021; Swain, 2006)
"Lha iya ya kok beda ya?" (Oh wow, yeah, why is it different?) *"Ini ada subjeknya nggak?"* (Does this have a subject?)	Learner isolates or detects a linguistic/ cognitive gap or problem. Keywords: identify, detect, notice, isolate.	**K2 (Seeking knowledge)**	**(N) Noticing**
"Kalau regular tinggal tambahin -ed." (If it is regular, you just add -ed.) *"Kalau orang yang sudah tidak ada, pakai was."* (If the person is already deceased, use "was".)	Learner applies theories to concrete cases, develops formulas based on deductive observation, or offers logical arguments about the language system. Keywords: Classify, deconstruct, argue	**K1 (Providing knowledge)**	**(R) Reasoning**
"Sears….berarti….verb two ya?" (Sears… means… verb two, right?) *"Predikat itu kata kerja, kan?"* (A predicate is a verb, right?)	Learner mentions possible rules or forms, or his/her own interpretation of rules to his/her partner to be	**K2 (Seeking confirmation)**	**(C) Confirming**

Sample of expressions	Operational Definition & Keywords	SFL Exchange Tier (Martin & Rose, 2007)	Cognitive LRE Tier (Shehadeh, 2003; Stuyck et al., 2021; Swain, 2006)
	validated/ confirmed. Keywords: test, check, ask for validation		
Gak ada ini… Gak menggunakan itu." (This does not exist… It does not use that.) *"Ada yang objek. Kecuali ini."* (There is an object. Except for this one.)	Learner performs self-assessment, checks the group's train of thought, detects errors, or rejects invalid arguments. Keywords: Evaluate, detect, interrupt, oppose	**K1 (Challenging moves)**	**(E) Evaluation**
"Oh objek! sorry.. Ini objek semua." (Oh, object! Sorry… these are all objects.) *"Ini ternyata satu kalimat nih. Berarti POK."* (This turns out to be one single sentence. It means [it is structured as] Predicate-Object-Complement.)	Learner experiences a sudden cognitive reorganization, successfully solves prolonged problem/confusion, and formulates an absolute conclusion that has just been realized. Keywords: enlightened, self-correct, crystallize	**K1 (Conclusive move)**	(I) **Insight / Aha! Moment**

To address quantitative workload distributions and test proportional differences, inferential frequency checks including Chi-Square goodness-of-fit tests ($\chi^2 = 25.20$, $p < 0.001$) were utilized where applicable. To establish inter-rater reliability, a subset of 23 LRE samples (representing approximately 7.3% of the total 315 LREs) was independently coded by a second researcher. Cohen's kappa was statistically significant, $\kappa = 0.562$ ($z = 4.29$, $p < 0.001$), indicating reliable agreement between the raters.

■ RESULT AND DISCUSSION

As Figure 1 shows, the symmetrical pair created a more balanced role distribution between the learners, with Confirming (C) reaching a high proportion alongside Reasoning (R), and the Primary Knower and Secondary Knower roles being shared sequentially. In contrast, the asymmetrical pair had one participant with absolute dominance, while the other learner was eventually left on the sidelines, mimicking the passivity of the traditional student roles. To better understand the mechanisms behind these findings, the sections below will sequentially provide microanalytic details of the patterns found.

Variations of Cognitive Functions Across Private Speech and Collaborative Dialogue

This section covers quantitative and qualitative analyses of two task types. Collaborative dialogue and private speech generated 315 LRE, which were categorized as Noticing (N), Reasoning (R), Confirming (C), Evaluation (E), and Insight (I). Table 4 shows the distribution across two pairs and four individual speech types.

Table 4 shows Reasoning as the most dominant type of languaging across two different tasks, alongside a distinct imbalance in peer contributions during collaborative work. In the M1 and M2 pair, M2 dominated strongly,

generating over 85% of the group's LREs and largely overpowering the peripheral M1 across all cognitive functions. Similarly, the M7 and M8 pair exhibited a comparable pattern, with M7 shouldering roughly 80% of the workload, yet this pair maintained a much better balance in work distribution.

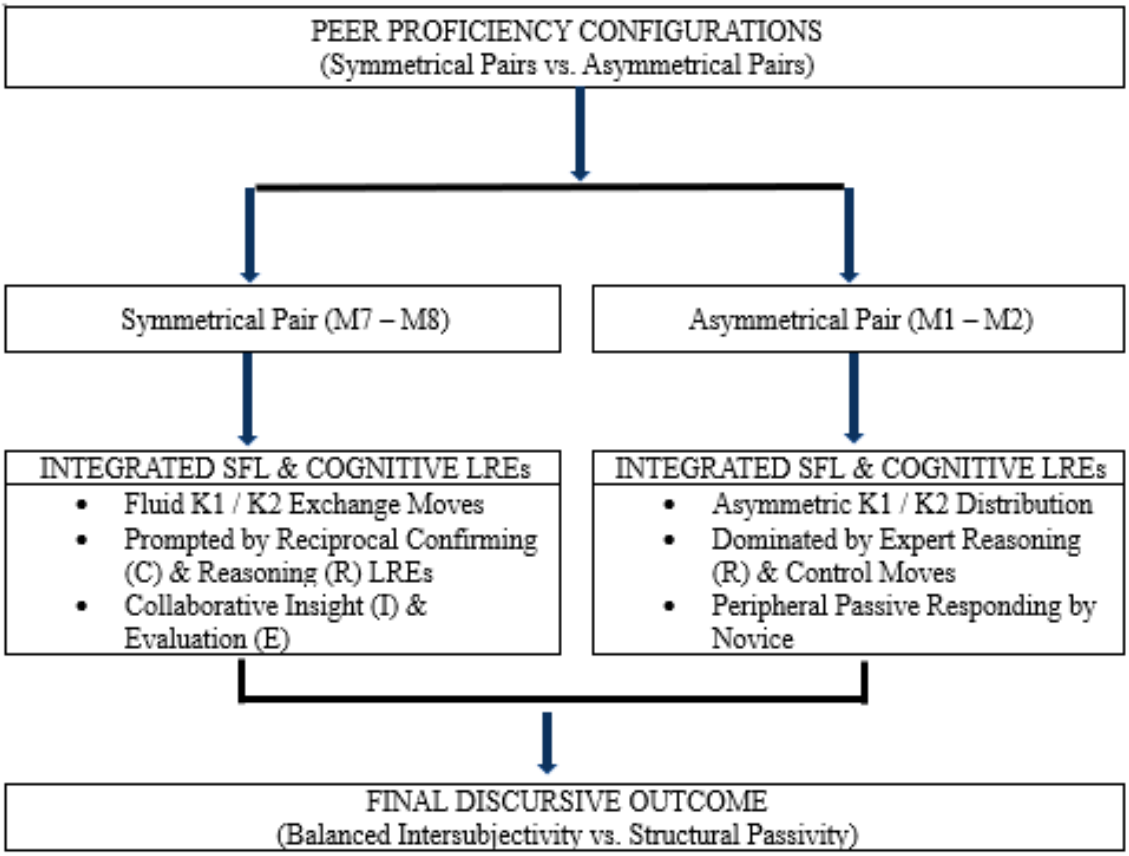


Figure 1. Thematic map of integrated SFL exchange roles and cognitive LREs across peer configurations

Table 4. Distribution of languaging types in collaborative dialogue and private speech

Task type	Languaging type				
	N	**R**	**C**	**E**	**I**
Collaborative dialogue					
M1 & M2	20 (18.87%)	42 (39.62%)	24 (22.64%)	11 (10.38%)	9 (8.49%)
M1	1(0.94%)	4(3.77%)	8 (7.55%)	3 (2.83%)	-
M2	19 (17.92%)	38 (35.85%)	16 (15.09%)	8 (7.55%)	9 (8.49%)
M7 & M8	5 (7.14%)	28 (40.00%)	26 (37.14%)	6 (8.57%)	5 (7.14%)
M7	4(5.71%)	24 (34.29%)	20 (28.57%)	4 (5.71%)	4 (5.71%)
M8	1 (1.43%)	4 (5.71%)	6 (8.57%)	2 (2.86%)	1 (1.43%)
Private Speech (Monologue)					
M1	2 (8.00%)	11 (44.00%)	7 (28.00%)	4 (16.00%)	1 (4.00%)
M2	-	46 (79.31%)	8 (13.79%)	3 (5.17%)	1 (1.72%)

Task type	Languaging type				
	N	R	C	E	I
M7	3 (9.09%)	19 (57.58%)	6 (18.18%)	4 (12.12%)	1 (3.03%)
M8	1 (4.35%)	13 (56.52%)	7 (30.43%)	2 (8.70%)	-

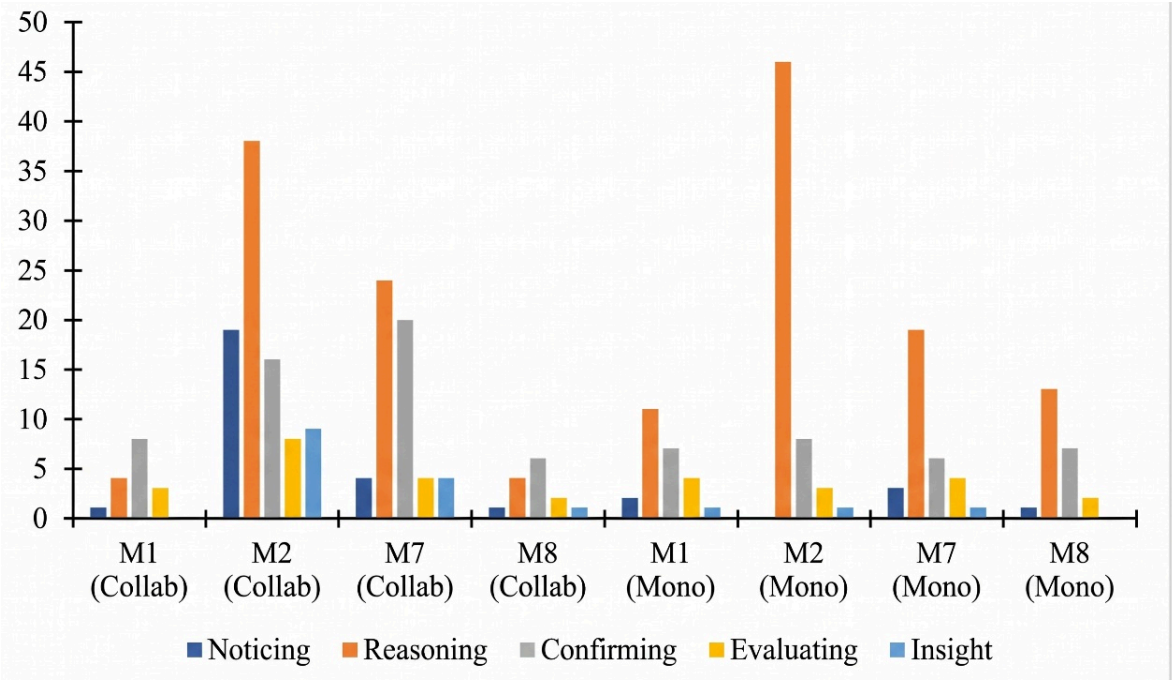


Figure 2. Pattern comparison of participants' languaging types across different tasks

To improve clarity and show the proportional distribution of these functions per participant, Figure 2 presents a grouped bar chart derived from the dataset.

Figure 2 illustrates the visual patterns. Compared with the M1-M2 pair, M7 and M8 distributed more balanced roles in their interactive dynamics. Meanwhile, M2 and M7 produced the most Reasoning (R) during monologic talk, while the quieter M1 and M8 successfully generated more cognitive processing. To better understand this phenomenon, the following sections provide a microanalytic qualitative analysis of the transcripts. Specifically, these subsections untangle how these patterns uniquely manifested within individual private speech and collaborative dialogue configurations.

Excerpt 1 illustrates how collaborative work within an asymmetrical pair results in two distinct outcomes: accelerated cognitive processing for the high-proficiency learner and the reproduction of traditional passivity. On the one hand, M2 resolved a semantic glitch (*"Sear itu apa?"*) through a continuous chain of cognitive functions almost entirely on her own. On the other hand, the less proficient M1 was largely relegated to the periphery. Although M1 tried to suggest the meaning of "sear" (lines 124–125), the interaction gently set her contribution aside and reduced her role to passive echoing. Thus, collaborative dialogue does not automatically guarantee balanced opportunities for cognitive growth; instead, it perpetuates structural passivity.

While the asymmetrical pair's dynamics were marked by explicit expert-novice dominance, the proficiency-matched pair of M7 and M8 presented a more complex dynamic. Quantitatively, a closer look at workload distribution reveals asymmetry similar to the first dyad, with M7 producing 80% of the LREs and M8 accounting for 20% ($\chi^2 = 25.20$, $p < 0.001$). However, qualitatively, M7 and M8 fostered a far more responsive, interactive environment. M7's frequent expressions of tentativeness invited peer engagement rather than imposing authority. As evidenced in Excerpt 2 and Excerpt 5, M7 repeatedly solicited verification through confirmatory tags (*"Kan sampe dia mateng ya?", "Berarti dia nggak ada subjeknya ya?"*), which successfully prompted M8 to step in

Excerpt 1: Pair 1 Collaborative Dialogue (M1 & M2)

123	**M2**	*Sear itu apa?* [What does "sear" mean?]	**Noticing (N)**
124	**M1**	*Gosokan..* [Ironing/Iron...]	—
125	**M1**	*Gosokan.* [Ironing/Iron.]	—
126	**M2**	*Oh iya?* [Oh, really?]	**Confirming (C)**
127	**M1**	*Oh ya, sear slice.* [Oh yes, sear the slice.]	—
128	**M2**	*Bakar irisan..* [Grill/Sear the slice...]	**Reasoning (R)**
129	**M2**	*Berarti ini verb nya ya?* [So this is the verb, right?]	**Confirming (C)**
130	**M1**	*Sama.* [The same.]	—
131	**M2**	*Ooww…. nggak..nggak….ini…..* [Ooww... no... no... this...]	**Evaluating (E)**
132	**M2**	*Iniiii….aaa…verb nya…* [This... aaa... is the verb...]	**Reasoning (R)**
133	**M2**	*Kata kerja…* [The verb...]	—
134	**M2**	*Terus slide hotdog..* [Then, the hotdog slice...]	—
135	**M2**	*Inii…objek…. in a large saute pan.* [This is the object... in a large sauté pan.]	**Reasoning (R)**
136	**M2**	*Until brown..* [Until brown...]	—
137	**M2**	*All over itu …. keterangan.* [All over is... the adverbial/complement.]	**Reasoning (R)**
138	**M2**	*Gak ada….* [There is no...]	**Noticing (N)**
139	**M2**	*Semuanya gak ada S-nya gak sih?* [None of them have a subject, right?]	**Confirming (C)**
140	**M2**	*S-nya tuh kayak, soalnya lu nih, lu yang mau kerja.* [The subject is like, because it's you, you are the one doing the work.]	**Reasoning (R)**
141	**M2**	*Gak ada orangnya.. ya kan?* [There is no person... right?]	**Confirming (C)**

Excerpt 2: Pair 2 Collaborative Dialogue (M7 & M8)

67	**M7**	*Kan sampai dia mateng ya?* [It is until it is cooked, right?]	**Confirming (C)**
68	**M7**	*Sampai kecoklatan.* [Until brownish.]	**Reasoning (R)**
69	**M7**	*Itu berarti keterangan.* [That means it is an adverbial/complement.]	**Insight (I)**
70	**M7**	*Berarti dia nggak ada subjeknya, ya?* [So it doesn't have a subject, right?]	**Confirming (C)**
71	**M8**	*Ada yang objek..* [There is an object.]	**Evaluating (E)**
72	**M8**	*Kecuali ini.* [Except for this one.]	**Evaluating (E)**
73	**M7**	*Berarti dia formatnya POK doang ya?* [So the format is just Predicate-Object-Complement, right?]	**Confirming (C)**
74	**M7**	*Nggak ada S-nya.* [There is no Subject.]	**Reasoning (R)**

and contribute (*"Ada yang objek", "Kecuali ini"*). Thus, although volume was quantitatively skewed, M7 and M8 achieved a high degree of functional reciprocity in their exchange structure, allowing mutual discourse contributions to thrive despite the numerical disparity.

Having explored the dynamics of cognitive functions across the two collaborative pairs, we now turn to how learners used the languaging arena independently. The following microanalytic section illustrates the patterns of monologic private speech.

Excerpt 3 shows this cognitive autonomy more clearly, where M2 does a self-explanation task. Without any social pressure, M2 systematically explains complex grammar rules about time prepositions (*In, on, at*). The excerpt shows a continuous cycle of reasoning (Lines 65–75), as she moves from broad timeframes like years and months down to specific calendar dates.

Importantly, Excerpt 3 shows how dynamic private speech can be when dealing with self-generated confusion. At Line 76, M2 reaches a turning point (*"Oh, enggak enggak, sebentar"*). Instead of ignoring her incomplete explanation, her inner speech acts as a monitor that stops her previous assumption. This allows her to re-evaluate and correctly expand the rule to include days (*"On Monday, On Tuesday"* at Lines 77–

Excerpt 3. M2 Private speech (self-explanation task)

65	**M2**	*Nah, ini itu urutan.. ini itu untuk..aa..menggambarkan bentuk yang kayak..dia itu jangka yang sangat lama* [So, this sequence... this is to describe a form that is like... a very long time-frame.]	**Reasoning (R)**
66	**M2**	*Jangka yang panjang gitu.* [a long-term frame like that.]	**Confirming (C)**
67	**M2**	*Contohnya kayak mau menggambarkan .. tahun, berarti in 1945 gitu misalnya.* [For example, if you want to describe... years, it means "In 1945" for instance.]	**Reasoning (R)**
68	**M2**	*Tahun 1945..1945 or bulan juga bisa.* [the year 1945... 1945 or months can also work.]	**Reasoning (R)**
69	**M2**	*Jadi kayak In May, In April, In August* [so like "In May", "In April", "In August".]	**Reasoning (R)**
70	**M2**	*Oke.* [Okay]	—
71	**M2**	*Kalau On itu ..dia itu.. specific date* [as for "On"... that is for... a specific date.]	**Reasoning (R)**
72	**M2**	*Jadi ada tanggalnya.* [so it includes the exact calendar date.]	**Reasoning (R)**
73	**M2**	*Kalau itu jadi.. contohnya On April 6th 2005 gitu misalnya* [If so, it becomes... for example "On April 6th 2005", like that.]	**Reasoning (R)**
74	**M2**	*Nah, itu pakainya On.* [Right, you use "On" for that.]	**Confirming (C)**
75	**M2**	*Kalau At itu dia lebih kecil lagi* [as for "At", it is even smaller [in scale].]	**Reasoning (R)**
76	**M2**	*Oh, enggak-enggak, sebentar* [Oh, no-no, wait a minute.]	**Evaluating (E)**
77	**M2**	*On itu juga bisa dipakai untuk hari ..just hari* [You use "On" for days too... just days.]	**Insight (I)**
78	**M2**	*Kayak misalnya On Monday, On Tuesday gitu* [Like for example "On Monday", "On Tuesday", like that.]	**Reasoning (R)**
79	**M2**	*Itu bisa ya.* [That works, yes.]	**Confirming (C)**

78). This final Insight shows that private speech is not just for retrieving knowledge, but acts as a real tool for problem-solving, self-correction, and independent learning.

A different outlook was seen in how M7, an A2 student with more limited knowledge compared to M2, executed a unique strategy when encountering a lexical blockage. As shown in Excerpt 4, M7 was in the middle of constructing her understanding of past chronology. She mapped out the chronological events first (Lines 32–36) and then followed them with the English sentence. Her lack of confidence was slightly on display as she stumbled with words (*"When I was…play the game…", "I was play the game…"*) when she hit a lexical blockage of not knowing the English term for the word "maling" (*"When the…maling…"*). Interestingly, she used a social pivot, stepping away from her monologue to enter a social interaction by asking her peer what language they were using. After this brief divergence, M7 returned to her monologic talk and provided a conceptual conclusion about the target form.

Synthesizing the comparative analysis of collaborative dialogue and private speech reveals distinct cognitive and interactive trajectories among EFL learners. First, aligning with Storch's (2001, 2021) model of dyadic dynamics, proficiency symmetry strongly mediates how cognitive functions are distributed. Within the asymmetrical dyad (M1 and M2), Reasoning (R) predominates as learners decode syntactic patterns and rationalize arguments. Nevertheless, this pairing exemplifies the classic 'expert-novice trap' (Storch, 2001); operating as the More Knowledgeable Other (MKO), M2's absolute authority sidelines M1 to the periphery, obstructing a truly mutual Zone of Proximal Development (ZPD). Conversely, the symmetrical dyad (M7 and M8) transcends this hierarchical barrier. Although quantitatively skewed, M7's overt tentativeness actively invites peer contribution, generating productive K2 loops that foster genuine intersubjectivity and balanced participation.

This finding contrasts with Watanabe and Swain (2007), who found that lower-proficiency participants successfully benefited from interactions with their higher-proficiency partners. Although both studies found a similar pattern, as in asymmetrical pairs generated more total LREs than symmetrical ones, Watanabe and Swain argued that peer proficiency differences did not necessarily shape peer assistance or L2

Excerpt 4. M7 Private speech (self-explanation task)

32	**M7**	*Misalkan.. ada satu kejadian tentang pencurian tuh* [For example... say there is an incident about a theft.]	**Reasoning (R)**
33	**M7**	*Terus kamu ditanya sama itunya* [then you are questioned by the person in charge,]	**Reasoning (R)**
34	**M7**	*Kamu bisa kayak jawab* [you could answer like,]	—
35	**M7**	*Pas aku lagi main itu tuh ternyata* [when I was busy playing that, it turns out...]	**Reasoning (R)**
36	**M7**	*Tetangga sebelah tuh ada yang kemalingan* [my next-door neighbor was robbed,]	**Reasoning (R)**
37	**M7**	*terus bisa juga kayak* [then it could also be like,]	—
38	**M7**	when I was ..play the game …	**Reasoning (R)**
39	**M7**	I was play the game…	**Evaluating (E)**
40	**M7**	*When the ...maling* [when the... thief...]	**Noticing (N)**
41	**M7**	*Eh kamu pakai bahasa apa?* [Directed to peer] [Hey, what language are you using?]	**Noticing (N) / Social Pivot**
42	**M7**	*jadi tentang bagaimana* [so it's about how...]	—
43	**M7**	*bagaimana penggunaan* [how to use...]	—
44	**M7**	*verb atau kata kerja* [verbs or action words,]	**Confirming (C)**
45	**M7**	*dalam menceritakan terkait kronologi* [in telling a chronology related to...]	**Reasoning (R)**
46	**M7**	*Terkait sebuah kronologi atau kejadian* [related to a chronology or an event,]	**Reasoning (R)**
47	**M7**	*Gimana sih penempatan yang sesuai* [how is the appropriate placement [of the verbs]	**Evaluating (E)**

Excerpt 5. Exchange structure between M7 & M8

56	M7	*Kalau misalkan keterangan tuh pake* in. (If it is an adverbial, it uses "in".)	**Rule-Formulating Primary Knowledge Move (K1)**
57	M8	*Berarti yang ini juga masih ini?* (So, does this one work the same way?)	**Initiating Knowledge Move (K2)**
58	M7	*Iya*. (Yes)	**Primary Knower Feedback Move (K1f)**
59	M8	*Itu objek semua.* (All of these are objects)	**Assertive Primary Knowledge Move (K1)**
60	M7	*Iya kan, bener.* (That's right.)	**Primary Knower Feedback Move (K1f)**
61	M7	Add-*nya predikat lagi.* ("Add" is the predicate.)	**Primary Knowledge Move (K1)**

learning. In contrast, the current study revealed a different dynamic: the higher-proficiency learner did not reciprocate or scaffold the lower-proficiency learner's contributions, resulting in persistent role imbalance and instructional marginalization.

In parallel, private speech acts as an autonomous cognitive tool, enabling learners to self-scaffold (Granott, 2005). For high-proficiency learners like M2, monologic space affords an uninterrupted refuge for metacognitive regulation and self-correction. Crucially, the lower-proficiency learner (M7) demonstrates dynamic adaptive behavior through a social pivot, fluidly transitioning from private to social speech when facing lexical deadlocks. This porous boundary between inner and social speech underscores the flexibility of languaging (Swain, 2006). Furthermore, the strategic code-mixing of L1 and L2 across these sessions highlights how learners dynamically marshal their full linguistic repertoires to scaffold complex grammatical restructuring.

Influence of Peer Proficiency Configurations on Cognitive Workload

While statistical distribution provides a macro-level overview of workload imbalances,

Excerpt 6. Exchange structure between M1 & M2

141	M2	*Semuanya gak ada S-nya gak sih?* [None of them have a subject, right?]	**Clarification Move (K2)**
142	M2	*S-nya tuh kayak, soalnya lu nih, lu yang mau kerja*. [The subject is like…because you're the one doing the work.]	**Assertive Primary Knowledge Move (K1)**
143	M2	*Gak ada orangnya.. ya kan?* (And there is no agent involved, right?)	**Asking for confirmation (K2)**
144	M1	*Ooh…iya*. (Oh, yes)	**Primary Knower Feedback Move (K1f)**
145	M2	*Kalau kita lihat lihat…*(If we observe…)	**Tracking Move (Tr)**
146	M1	*Dan gak ada cerita orangnya gitu ya?* (And there is no person here. Is that right?)	**Self-Checking / Validation Move (K2)**
147	M2	*Heu eum*..Transfer.. (Uh uh. Transfer..)	**Primary Knower Feedback Move (K1f)**
148	M1	*Tapi ada predikat gak?* ((But is there a predicate?)	**Knowledge Move (K2)**
149	M1	*Ada kan ya?* (There is, right)	**Re-initiating/Urging Move (K2)**
150	M2	*Predikat?* (Predicate?)	**Tracking/Clarification Move (Tr)**
151	M2	*Predikat tuh ini.* (This is the predicate)	**Assertive Primary Knowledge Move (K1)**
152	M2	*Kata kerja*..verb (verb..verb)	**Primary Knowledge Move (K1)**
153	M2	Transfer.	**Primary Knowledge Move (K1)**
154	M2	Transfer *tuh predikat-nya nih.* (The predicate is "transfer")	**Re-assertive Primary Knowledge Move (K1)**

it does not reveal how discourse moves unfold dynamically during peer interaction. To understand how proficiency configurations shape the micro-architecture of collaborative dialogue, this section examines exchange-structure patterns, specifically, how Primary Knower (K1) and Secondary Knower (K2) moves are negotiated between dyads.

Excerpt 5 illustrates how Primary and Secondary Knower moves are distributed with a much higher degree of balance between M7 and M8. Although M7 shouldered 80% of the overall LREs, her dominance did not result in a closed monologue. Instead, as shown in Lines 56–61, M7 actively opened the floor by formulating syntactic rules (Line 56), which prompted M8 to initiate confirmation checks (Line 57) and even assert her own primary knowledge claims (*"Itu objek semua"* at Line 59). Rather than dismissing M8's assertion, M7 ratified it through a feedback move (*"Iya kan, bener"* at Line 60). This reciprocal exchange demonstrates how symmetrical pairings foster a shared conversational space, encouraging the less dominant peer to take bolder authoritative moves.

On the other hand, M1 and M2's exchange pattern was predominantly one-way, with M1 functioning as the secondary knower for the most part, while M2 acted as the primary knowledge holder. M2 successfully scaffolded M1's understanding by explaining the structural concept of the sentence subject (Lines 141–143) and establishing authoritative knowledge claims. In contrast, M1's utterances (Lines 148–149) reflected uncertainty regarding the existence of predicates, which prompted M2 to take the lead again (Lines 150–154) by explicitly identifying the verb (*transfer*) as the predicate. This unidirectional flow highlights the asymmetric nature of peer assistance within this pairing.

These findings show that the structure of collaborative dialogue is closely connected to the habits built within the pair. Under the SFL framework, exchange moves like K1 and K2 are not just rigid categories; they show how learners share knowledge and authority. In a symmetrical pair like M7 and M8, the absence of a strict leader allows the roles to flow back and forth. Even though one learner talks more in total, the willingness to share feedback moves (K1f) keeps the dialogue mutually supportive. In the end, this shows that good collaborative learning does not depend on an equal amount of talking, but on how well learners share their roles to initiate, check, and validate each other's ideas.

■ CONCLUSION

This study is important because it directly compares individual and group languaging in a typical EFL classroom. While group work

is often seen as the best way to increase student involvement, our results show it is not always effective. When students are paired with different skill levels, lower-proficiency students can become passive. In contrast, private speech gives learners a safe space to think through rules and monitor their own understanding without pressure. This means teachers should see individual think-aloud activities as valuable in their own right, not just as preparation for group work.

We also acknowledge several limitations. First, due to scope constraints, this study is based on an intensive case study of four participants, so observed behaviors, such as asymmetry and passivity in peer interactions, are specific to the cases studied and cannot be generalized to all EFL learners. Second, the study collected data from only two dyads over a short period. Therefore, interpret the findings with caution, and future studies should include a broader range of proficiency pairings and larger cohorts to provide more comprehensive insights.

■ DECLARATION OF GENERATIVE AI

During the preparation of this manuscript, the authors used AI-assisted tools, including AI Mode, Grammarly, and Turboscript, to support language editing and improve grammatical accuracy. The authors carefully reviewed and edited the output generated by these tools and take full responsibility for the manuscript's content.

■ REFERENCES

Anani Sarab, M. R., & Gordani, Y. (2015). The role of private speech in cognitive regulation of learners: The case of English as a foreign language education. *Cogent Education*, *2*(1), 1–10. https://doi.org/10.1080/2331186X.2015.1054331

Bao, R. (2020). Collaborative dialogue between complete beginners of Chinese as a foreign language: implications it has for Chinese language teaching and learning. *The Language Learning Journal*, *48*(4), 414–426. https://doi.org/10.1080/09571736.2017.1422136

Brooks, L., Swain, M., Lapkin, S., & Knouzi, I. (2010). Mediating between scientific and spontaneous concepts through languaging. *Language Awareness*, *19*(2), 89–110. https://doi.org/10.1080/09658410903440755

Darwin, D., & Saputra, D. G. (2024). The role of Indonesian language in developing critical thinking skills of Junior High School students 16 Jambi City. *Majority Science Journal*, *2*(4), 119–127. https://doi.org/10.61942/msj.v2i4.262

Granott, N. (2005). Scaffolding dynamically toward change: Previous and new perspectives. *New Ideas in Psychology*, *23*(3), 140–151. https://doi.org/10.1016/j.newideapsych.2006.07.002

Ishikawa, M. (2013). Examining the effect of written languaging: The role of metanotes as a mediator of second language learning. *Language Awareness*, *22*(3), 220–233. https://doi.org/10.1080/09658416.2012.683435

Ishikawa, M., & Suzuki, W. (2023). Effects of written languaging on second language learning: Mediating roles of aptitude. *The Modern Language Journal*, *107*, 95–112. https://doi.org/10.1111/modl.12817

Kazemi, P., Pourdana, N., Khalili, G. F., & Nour, P. (2022). Microgenetic analysis of written languaging attributes on form-focused and content-focused e-collaborative writing tasks in Google Docs. *Education and Information Technologies*, *27*, 10681–10704. https://doi.org/10.1007/s10639-022-11039-y

Marcellino, M. (2008). English language teaching in Indonesia: A continuous challenge in education and cultural diversity. *TEFLIN Journal: A Publication on the Teaching and Learning of English*, *19*(1), 57–69. https://doi.org/10.15639/TEFLINJOURNAL.V19I1/57-69

Martin, J. R., & Rose, D. (2007). *Working with discourse: Meaning beyond the clause* (2nd ed.). Athenaeum Press.

Moradian, M. R., Miri, M., & Hossein Nasab, M. (2017). Contribution of written languaging to enhancing the efficiency of written corrective feedback. *International Journal of Applied Linguistics (United Kingdom)*, *27*(2), 406–426. https://doi.org/10.1111/ijal.12138

Murtiningrum, S. (2009). *Classroom interaction in English learning*. Sanata Dharma University. Unpublished Thesis. Accessed 26 December 2024. https://repository.usd.ac.id/33726/

Shehadeh, A. (2003). Learner output, hypothesis testing, and internalizing linguistic knowledge. *System*, *31*(2), 155–171. https://doi.org/10.1016/S0346-251X(03)00018-6

Smagorinsky, P. (1998). Thinking and speech and protocol analysis. *Mind, Culture, and Activity*, *5*(3), 157–177. https://doi.org/10.1207/s15327884mca0503_2

Storch, N. (2008). Metatalk in a Pair Work Activity: Level of Engagement and Implications for Language Development. *Language Awareness*, *17*(2), 95–114. https://doi.org/10.1080/09658410802146644

Storch, N. (2021). Collaborative writing: Promoting languaging among language learners. In M. del P. García Mayo (Ed.), *Working Collaboratively in Second/ Foreign Language Learning* (pp. 13–33). De Gruyter Mouton. https://doi.org/10.1515/9781501511318-002

Storch, N., & Alshuraidah, A. (2020). Languaging when providing and processing peer feedback. In W. Suzuki & N. Storch (Eds.), *Languaging in Language Learning and Teaching* (pp. 111–128). John Benjamins Publishing Company. https://doi.org/10.1075/lllt.55

Stuyck, H., Aben, B., Cleeremans, A., & Van den Bussche, E. (2021). The Aha! moment: Is insight a different form of problem solving? *Consciousness and Cognition*, *90*(2), 1–42. https://doi.org/10.1016/j.concog.2020.103055

Suzuki, W. (2009). *Languaging, Direct Correction and Second Language Writing: Japanese University Students of English* [Unpublished doctoral dissertation]. University of Toronto. https://bac-lac.on.worldcat.org/oclc/718167595?lang=en

Suzuki, W. (2012). Written languaging, direct correction, and second language writing revision. *Language Learning*, *62*(4), 1110–1133. https://doi.org/10.1111/j.1467-9922.2012.00720.x

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principle & Practice in Applied Linguistics: Studies in Honour of H. G. Widdowson* (pp. 125–144). Oxford University Press.

Swain, M. (1997). Collaborative Dialogue: Its Contribution to Second Language Learning. *Revista Canaria de Estudios Ingleses*, *34*, 115–132.

Swain, M. (2006). Languaging, agency and collaboration in advanced second language proficiency. In H. Byrnes (Ed.), *Advanced Language Learning: The Contribution of Halliday and Vygotsky* (pp. 95–108). London: Continuum

Swain, M., Kinnear, P., & Steinman, L. (2015). Sociocultural Theory in Second Language Education. In *Sociocultural Theory in Second Language Education*. https://doi.org/10.21832/9781783093182

Swain, M., Lapkin, S., Knouzi, I., Suzuki, W., & Brooks, L. (2009). Languaging: University students learn the grammatical concept of voice in French. *Modern Language Journal*, *93*(i), 5–29. https://doi.org/10.1111/j.1540-4781.2009.00825.x

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Harvard University Press.

Vygotsky, L. S. (1987). Thinking and speech. In R. W. Rieber & A. S. Carton (Eds.), *The collected works of L. S. Vygotsky: Vol. 1. Problems of general psychology* (pp. 39–285). Plenum Press.

Watanabe, Y. (2020). Talking to self while writing: second-language writers' languaging processes and reflections. In W. Suzuki & N. Storch (Eds.), *Languaging in Language Learning and Teaching* (pp. 197–218). John Benjamins Publishing Company. https://doi.org/10.1075/lllt.55

Watanabe, Y., & Swain, M. (2007). Effects of proficiency differences and patterns of pair interaction on second language learning: collaborative dialogue between adult ESL learners. *Language Teaching Research*, *11*(2), 121–142. https://doi.org/10.1177/136216880607074599

Winsler, A. (2009). Still talking to ourselves after all these years : A review of current research on private speech. In A. Winsler, C. Fernyhough, & I. Montero (Eds.), *Private Speech, Executive Functioning, and the Development of Verbal Self-Regulation* (pp. 3–41). Cambridge University Press.

Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, *17 (2)*, 89–100. https://doi.org/10.1111/j.1469-7610.1976.tb00381.x