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When Dialogic and Thinking Moves Intersect: An Exploratory Study of Thinking-Routine-Guided Discussions in an EFL Classroom

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Abstract: This study reports on an English movie discussion course, where Visible Thinking routines were used to guide students' analysis of films. Thinking routines were aligned with specific thinking moves to scaffold thinking. As a qualitative exploratory study, it investigates how these routines mediated student interaction and contributed to a thinking culture. Data included two focal groups' discussions and student reflections, analyzed through dialogic and thinking move coding and thematic analysis. Findings show that routines improved dialogic interaction and strengthened the move of considering viewpoints, but deeper analysis occurred only when moves such as expressing and reasoning co-occurred with explaining/interpreting and supporting with evidence. Thematic analysis identified four elements of a thinking culture: teacher guidance, peer support, structured tasks, and confidence in expression. These findings provide fine-grained evidence of how dialogic and thinking moves intersect and how a thinking culture can benefit learning in EFL classrooms.

Introduction and theoretical foundation

Approaches to fostering thinking

Integrating the teaching of thinking into instruction has become a prominent educational trend. Resnick (1987) emphasized that the development of thinking is shaped by social interaction in social contexts. Such contexts provide learners with scaffolding and opportunities for participation. Collins et al. (1991) further stressed that expert modeling helps make implicit cognitive processes visible, and that learners deepen their reasoning and understanding by engaging in challenging problem-solving tasks with support through interaction. Many scholars have advanced approaches to foster the development of thinking in classrooms. Ennis (2018) proposed the infusion model, embedding critical thinking into school curricula. Mercer and Littleton (2007) introduced the Thinking Together program, stressing that dialogue is a social mode of thinking and demonstrating how exploratory talk enables students to reason jointly, negotiate meaning, and construct shared knowledge. Kuhn (Kuhn & Crowell, 2011) emphasized dialogic argumentation as a structured social practice, where guided participation in discussion of significant issues develops students' critical thinking skills. Ritchhart and colleagues (2011) introduced Visible Thinking approach, which uses thinking routines to scaffold cognitive processes and make students' thinking visible. Despite their different emphases, these approaches share a common goal: integrating the teaching of thinking into the curriculum while highlighting the essential role of social interaction.

Visible thinking and applications in language education

Among these approaches, Visible Thinking has gained particular prominence. Developed by Ritchhart and colleagues (2011), Visible Thinking is grounded in a sociocultural view of learning and centers on making thinking visible through four core practices: the use of thinking routines, documentation, questioning, and listening. Thinking routines are simple, repeatable structures that scaffold specific thinking moves and externalize thinking in both individual and collective forms. For example, the *See–Think–Wonder* routine scaffolds three thinking moves: observing details (See), building explanations and interpretations (Think), and wondering (Wonder) about an artifact or text in relation to a given topic. Different sets of routines can be used to help students explore new topics, synthesize thoughts, and dig deeper into ideas. With the overarching aim of making thinking visible and deepening understanding, teachers may further extend students' thinking by questioning, encouraging interaction, and requiring them to document their thoughts. Through repeated use, these practices establish a culture of thinking that nurtures thinking dispositions, fosters deep learning, increases engagement, and normalizes classroom discourse as a space for critical, creative, and metacognitive thinking (Ritchhart & Church, 2020). Scholars beyond the Visible Thinking tradition have similarly emphasized the importance of explicit guidance, modeling, and dialogic interaction (Tishman et al., 1993; Zhao et al., 2016). This emphasis aligns with Mercer's view of dialogue as a social mode of thinking and with Kuhn's conception of dialogic argumentation, underscoring that guided and carefully structured social interactions are indispensable to the development of students' thinking.

Empirical research has applied thinking routines across diverse educational contexts. In language education, they are increasingly recognized for advancing the dual goals of language learning and thinking

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development. Studies show that thinking routines can enhance language performance, for instance improving writing proficiency (Hooper, 2015), oral coherence (Arévalo Balboa & Briesmaster, 2018), and critical reading (Chen & Jan, 2023). They also foster thinking abilities, including reasoning with evidence and critical thinking (Hooper, 2015; Manurung et al., 2022). In addition, routines reshape interaction and classroom culture, encouraging participation (Dajani, 2016), supporting more open and dialogic discussion climates (Salmon, 2008; Chen, 2025), and facilitating dialogic interaction in classroom discussions (Khalid & Foo, 2021). This body of work points to the affordances of thinking routines as structured tools for integrating language learning with deeper forms of thinking and dialogic interaction.

The need for fine-grained analysis and localized understanding of thinking cultures

Despite these contributions, two gaps remain. The first gap is the lack of fine-grained discourse analyses of small-group discussions guided by thinking routines. Existing studies relevant to thinking routines have largely relied on standardized tests, ethnographic observations, students' self-reports, or interviews, and only very few have examined actual group discussion data. Even when discourse data was analyzed (Khalid & Foo, 2021), the analysis remained descriptive and lacked a systematic coding scheme capable of revealing the underlying dialogic and thinking patterns. However, without such analysis, it is difficult to see how thinking routines scaffold the learning process in small-group discussions, which requires examining the intersection of dialogic interaction and thinking. The second gap relates to classroom culture. Ritchhart (2015) stressed that the repeated use of thinking routines helps shape cultures of thinking and outlined eight cultural forces. However, empirical studies have offered limited insight into how such a culture develops in EFL classrooms. To address these issues, this paper explores two research questions: (1) What dialogic and thinking patterns emerge during small-group discussions guided by thinking routines? (2) What elements support the development of a culture of thinking in an EFL classroom?

Research design

This study is a qualitative exploratory classroom-based study, with the primary aim of exploring how learning occurs through the interplay of thinking and dialogic interaction and the development of a culture of thinking.

Context and instructional design

The study was conducted in an undergraduate English movie discussion course at a Taiwanese university. This 3-credit, 18-week class enrolled 19 students from diverse majors, with an overall English proficiency around CEFR B1–B2. While classes were conducted in English and most students communicated actively, some were less confident in expressing their ideas. The author served as both the course instructor and the researcher. This dual role fostered a trusting classroom environment conducive to authentic dialogue and provided a deep familiarity with the students' ongoing learning trajectories. Four English films featuring social issues were chosen as core materials. To cultivate a classroom culture that values thinking and interaction, the course objective were explicitly aligned with four targeted thinking moves: explaining and interpreting, making connections, considering different viewpoints, and supporting with evidence. Visible Thinking routines structured students' engagement from individual note-taking to small-group collaborative discussions on film plots, characters, and thematic issues. For instance, *Story Map* supported students in organizing storylines, and *Persona* guided multi-faceted character analysis.

Taking *Persona* as an example, this routine facilitated character analysis by emphasizing two thinking moves: considering different viewpoints and building explanations and interpretations. Scaffolded by guiding questions and visual templates, students analyzed characters from multiple angles (e.g., personality, beliefs, struggles) and supported their claims with relevant quotes. Groups then collaboratively constructed character maps on whiteboards. This physical externalization made their cognitive processes visible, enabling students to organize and integrate ideas, which deepened the discussion and provided a basis for later reflection.

Data collection and analysis

To examine how thinking routines mediated cognitive and dialogic interactions, Persona was selected as the primary analytical case. This recurrent routine encourages multi-faceted character analysis, offering rich opportunities to observe the intersection of thinking and dialogue. Guided by field observations of their distinct interactional styles and group composition, two focal groups (4 students each) were purposefully sampled. Their 30-minute discussions were recorded at Week 3 (baseline) and Week 9 (with Persona).

Transcripts were analyzed using a turn-level dual-coding framework. To capture internal cognitive actions, four Thinking Moves (TM) (Ritchhart et al., 2011) were coded: explaining and interpreting (EI), making connections

(C), considering viewpoints (VP), and supporting with evidence (EV). These were selected for aligning directly with the course's media-analysis objectives. To analyze external social interactions, five Dialogic Moves (DM) were selectively adapted from the SEDA framework (Hennessy et al., 2016): expressing ideas (E), building on thoughts (B), positioning (P), reasoning (R), and coordinating (CO). Rather than utilizing SEDA's 33 granular sub-codes, these five clusters were chosen to maintain analytical clarity. Crucially, these DMs were operationalized to capture social interaction (e.g., expressing focuses on initiating thoughts; reasoning as the inviting or providing evidence; building on as taking up a peer's thought). This deliberate separation from cognitive TMs enables precise examination of their intersection. Parsing of transcripts was based on speaker utterances. Because a single utterance could serve multiple functions, it was possible for one line to be coded with more than one move. Task-related repetitions or fillers were excluded. Following coding, the frequency of each code was calculated. This enabled us to examine code sequences, overall patterns, and their co-occurrences, as well as to compare differences across tasks and groups. As this proceeding represents an exploratory phase testing the dual-coding framework, transcript micro-analysis was conducted solely by the researcher. A second coder was not utilized, which I acknowledge as a limitation.

To investigate elements contributing to a thinking culture, 18 students' reflections were collected and analyzed using thematic analysis (Braun & Clarke, 2012). The reflections were first deductively screened for instances relevant to the focus of thinking and interaction, and then initial codes were inductively generated from the raw data, which were iteratively reviewed, refined, and consolidated into broader overarching themes. NVivo 14 was used to manage the coding process. Finally, to ensure triangulation and enhance the trustworthiness of the qualitative study, thinking routine artifacts, weekly class observation journals and field notes were also collected.

Findings

The Persona routine effectively supported thinking

The coding results of thinking moves indicate that the *Persona* routine effectively stimulated students' use of thinking moves. The coding results were outlined below in Table 1. As Table 1 shows, the total number of lines coded for thinking moves increased in both groups: Group A rose from 38 to 93 lines, while Group B increased from 65 to 73 lines. A comparison of patterns between Week 3 and Week 9 also revealed noticeable shifts. In Week 3, the most frequent thinking moves in both groups were explaining and interpreting and supporting with evidence. By Week 9, after the introduction of the *Persona* routine, the dominant moves shifted to explaining and interpreting and considering different viewpoints, with both groups showing increases in these categories. Changes in making connections were minimal (Group A: +1; Group B: -2). Differences emerged in supporting with evidence: Group A increased from 22 to 36 lines (+14), while Group B decreased from 23 to 18 lines (-5). Overall, *Persona* appeared particularly effective in promoting considering different viewpoints and explaining and interpreting, as elaborated in the following section.

Table 1
Coding Results of Thinking Moves

	Group A			Group B		
Thinking move	**W3**	**W9**	**Change**	**W3**	**W9**	**Change**
Explaining and interpreting	26	72	46	48	53	5
Making connections	8	9	1	5	3	-2
Considering different viewpoints	13	46	33	14	36	22
Supporting with evidence	22	36	14	23	18	-5
Sum of coded lines	38	93	55	65	73	8
Sum of all lines	140	224	84	215	307	92

Persona routine effectively supported considering different viewpoints

Among the four thinking moves, the most notable increase was in considering different viewpoints. Group A rose from 13 to 46 instances, and Group B from 14 to 36. Guided by the *Persona* routine, students analyzed characters from multiple angles and extended their analysis to finer sub-dimensions. When one member initiated an analysis from a particular angle, others responded by adding different perspectives, demonstrating an enhanced capacity to consider multiple viewpoints in discussion.

Persona routine effectively supported "explaining and interpreting"

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Both groups also showed increases in explaining and interpreting. Group A rose from 26 to 72 instances, while Group B increased from 48 to 53. This suggests that students became more frequent in describing and interpreting characters. In Week 3, explanations tended to be brief and surface-level, often limited to single words or simple descriptions with insufficient detail or further interpretation. By Week 9, however, students' accounts included more elaboration and reasoning. They provided detailed interpretations of the character's inner struggles, linked their ideas to relevant plot references, and sustained their dialogue by adding further explanations or offering alternative interpretations. This indicates that students developed greater ability to provide richer and more nuanced explanations and interpretations.

The Persona routine effectively supported dialogic interaction

Growth and shifts in dialogic interaction patterns

As shown in Table 2, the dialogic move analysis revealed that the Persona routine effectively stimulated dialogic interaction, demonstrating clear increases in the total number of lines coded as dialogic moves: Group A rose from 67 to 127 lines, nearly doubling, and Group B increased from 119 to 146 lines. Three moves showed notable gains in both groups: expressing ideas, positioning, and coordinating dialogue. In Week 3, these moves occurred infrequently, suggesting that students were less familiar with the discussion format, hesitant to contribute ideas, reluctant to state positions, and less willing to coordinate the talk. By Week 9, however, expressing ideas rose substantially (Group A: 7 to 32; Group B: 18 to 35), and positioning also increased (Group A: 2 to 11; Group B: 7 to 27), indicating that students became more active in sharing ideas and articulating agreement or disagreement. Coordinating dialogue likewise improved (Group A: +5; Group B: +10), with coordination no longer limited to group leaders, as other members also took turns to sustain the flow of talk.

At the same time, patterns of dialogic interaction shifted. In Week 3, both groups' talk largely consisted of building on and reasoning, reflecting a turn-taking pattern where a leader or individual initiated contributions and others responded briefly with ideas and reasons. By Week 9, the two groups diverged. Group A showed increases across all five dialogic moves, with building on and reasoning remaining most frequent. Their dialogue chains often followed sequences such as expressing ideas → building on or expressing ideas → reasoning → building on, showing that students not only extended peers' ideas but also requested or provided reasons. Group B, in contrast, relied more on expressing ideas and building on, showing greater ease in contributing thoughts, giving response, showing positions, but with fewer instances of reasoning.

In summary, Group A's dialogue chains combined extension and advancement, with students continuing others' contributions while adding reasons or perspectives to push discussion forward. Group B's talk leaned more toward listing and shifting, sustaining interaction but lacking deeper reasoning built on peers' ideas.

Table 2

Coding Results of Dialogic Moves

	Group A			Group B		
Dialogic move	**W3**	**W9**	**Change**	**W3**	**W9**	**Change**
Expressing ideas	7	32	25	18	35	17
Building on ideas	22	41	19	62	52	-10
Reasoning	23	47	24	22	8	-14
Positioning	2	11	9	7	27	20
Coordinating	21	26	5	17	27	10
Sum of coded lines	67	127	60	119	146	27
Sum of all lines	140	224	84	215	307	92

Interrelationship between dialogic moves and thinking moves

A further comparison of coding results revealed interconnections between dialogic and thinking moves, particularly between expressing ideas and explaining/interpreting, as well as between reasoning and supporting with evidence. These interconnections influenced the depth of thinking demonstrated in group discussions.

Interconnections between "expressing ideas" and "explaining and interpreting"

Both groups showed notable increases in expressing ideas and explaining/interpreting, and the frequent co-occurrence of these moves suggests that students often described or interpreted characters while also contributing new ideas more freely. However, closer inspection reveals distinct group differences. Group A outperformed Group B in both moves, with expressing ideas increasing from 7 to 32 lines (+25) and explaining/interpreting by

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46 lines. In contrast, Group B showed a smaller increase in expressing ideas (+17) and only a marginal gain in explaining/interpreting (+4). Examination of the transcripts further indicates that Group A provided more detailed and in-depth interpretations, whereas Group B's descriptions were simpler and their interpretations less developed. For example, as shown in Table 3, in Week 9, Group B's dialogue chain followed the sequence expressing ideas (30) → building on (31) → reasoning (33), yet the contributions consisted largely of brief words, quickly shifting to new ideas (34). This pattern reflects a brainstorming-like listing of angles without extended elaboration. Only one member supported an idea with a quotation (33), while others neither built on the interpretation nor provided supporting evidence. Consequently, their ideas remained fragmented.

Table 3
Excerpt from Group B's Week 3 Small-Group Discussion

Line	Speaker	Content	DM	TM
30	Jia	Driving, arguing.	E	EI+VP
31	Xiang	real driving?	B	
32	Jin	Yes.		
33	Jia	He said he can drive any kinds of cars.	R	EV
34	Xuan	Bodyguard.	E	EI+VP
35	Xiang	Fighting?	B	VP
36	Yixuan	Fight for his friends.	B	EI
37	Xiang	Socializing, I think.	E	EI+VP

In contrast, as Table 4 shows, while Group A's dialogue chain also followed the sequence expressing ideas (244) → building on (247, 248) → reasoning (249), the interaction was more sustained, with subsequent turns continuing to build on (250–252). Moreover, their dialogic moves of expressing ideas or building on were frequently co-occurred with thinking moves such as explaining and interpreting together with considering viewpoints (e.g., 247, 249, 250), or supporting with evidence (e.g., 251–252). The evidence provided to support ideas often drew on specific plot details about the character or personal opinions, resulting in more elaborated statements and deeper engagement with the characters' inner feelings, which enabled richer interpretations.

The contrast between the two groups suggests that frequently expressing ideas in discussion does not necessarily equate to higher-quality analysis. Rather, the quality depends not only on the extent of explanation and interpretation provided but also on the extent to which interpretations draw on relevant plot details.

Table 4
Excerpt from Group A's Week 9 Small-Group Discussion

Line	Speaker	Content	DM	TM
244	Diamond	Oh, OK. I just write the quote that he get off of the car and at night in the heavy rain. So if I'm not black enough and if I'm not white enough and I'm not man enough, then tell me, Tony, what am I?	E	EV
245	Pei	Same.		
246	Yun	Same?		
247	Diamond	This described that he's very confused about himself, that he...	B	EI+VP
248	Pei	His belonging.	B	EI
249	Diamond	Yeah, his social life is in white, white and rich people, but after he get off the stage that he is a black people, black person again. But he is not black enough because he...	R	EI+VP
250	Yun	He can't fit in.	B	EI+VP
251	Diamond	Yeah, he can't fit in the black society, that he hasn't, he doesn't do their games and doesn't eat their food, and he...	B	EI+C+EV
252	Yun	Listen to their music?	B	C+EV
253	Diamond	Yeah, listen to their music. And the main thing is just like the sexual orientation.		EV

Interconnections between "reasoning", "supporting with evidence" and "explaining and interpreting"

The coding results also show strong interconnections between the dialogic move reasoning and the thinking moves supporting with evidence and explaining/interpreting. For example, in Group A, increases in reasoning corresponded to growth in supporting with evidence, whereas in Group B both decreased. This suggests that reasoning and evidence use are closely connected, influencing the depth of character analysis.

In Group A, as the excerpt in Table 4 shows, character interpretations became progressively deeper: students adopted the character's perspective, developed deeper interpretations, and supported them with concrete plot evidence, while peers built on each other's ideas in sustained sequences. In the thinking-move chain (244–253), a student cited and described a line of quote (244), which others followed by providing interpretations (247–251) and connecting to specific scenes (251–252). The evidence cited included specific plot events and quotes, often connected across different parts of the film to form comprehensive interpretations. The corresponding dialogic chain followed the sequence expressing ideas → building on → reasoning → building on, with dialogic moves stacking in a continuous manner. This interconnection of dialogic and thinking moves resulted in discussions that were both sustained and deep.

By contrast, Group B's discussions more often involved listing ideas from different angles without horizontal connections or strong evidential support. For instance, in Table 5, when Jia initiated a discussion of the character's struggles (199), the subsequent dialogue followed the chain expressing ideas (201) → building on (204, 205) → reasoning (207) → building on (208–209). The thinking moves began by analyzing the struggle in terms of racial identity at work (201) and then shifted to whether the protagonist defended his rights (205). Although reasoning was attempted (207), the quality was weak, relying only on vague descriptions rather than specific details or dialogue. The discussion lacked further interpretation and did not bring in additional textual evidence. As a result, although the conversation continued smoothly and members responded to each other with ease, the talk lacked topical continuity, relied on weak evidence, and rarely moved into deeper exploration.

Table 5
Excerpt from Group B's Week 9 Small-Group Discussion

Line	Speaker	Content	DM	TM
199	Jia	Struggle. I write...	C	
200	Xiang	Yeah the first.		
201	Jia	In the interview, he struggled for work for the black man, for black man, and, or work far from home?	E	VP+EV
202	Xiang	Yeah.		
203	Jia	Maybe...		
204	Xiang	How about the middle of the movie? In the first.	B	
205	Jia	And I write, maybe struggle for, whether he fight for Don's rights.	B	EI+VP
206	Jin	Oh.		
207	Jia	Because if he fights for the...if he go fight or argue for Don's right, maybe there is no results. There is no a good result. Everything will be the same.	R	EV
208	Xiang	Yeah, he will not receive the money.	B	EI
209	Jia	Yeah, and... after his argue, maybe everything is no change. So I think it's...	B	EI

Quality of discussion through thinking–dialogic move interconnections

A comparison of the two groups highlights that the effects of the *Persona* routine were not uniform, and that the quality of character analysis depended on how thinking moves and dialogic moves interconnected. Differences were determined by topical continuity and on the quality of "explaining and interpreting" and "supporting with evidence." Moreover, when "reasoning" was followed by "building on" and co-occurred with "supporting with evidence," students not only justified their own claims but also invited peers to do so. In particular, when evidence was tied to specific plot details and elaborated through peer contributions, the discussion anchored the topic, propelled subsequent turns, and led to deeper thinking and more nuanced interpretations.

Building a thinking culture with thinking routines

To examine the elements that contributed to building a culture of thinking in a classroom where thinking routines were embedded, 18 students' self-reflections were collected and analyzed using thematic analysis. The coding

results are summarized in Table 6 and classified into four major themes encompassing a total of thirteen subthemes. Below I discuss what these themes reveal about the elements that build a classroom culture of thinking.

Table 6
Coding Results from Students' Self-Reflection

Theme	Freq.	%
Teacher guidance and affective support	13	72.22%
Peer interaction and supportive atmosphere	17	94.44%
Structured tasks fostering thinking and perspective-taking	17	94.44%
Confidence and ease in expression through interaction	18	100.00%

Elements of building a thinking culture with thinking routines

The first element is teacher guidance and affective support. Students emphasized that the teacher's questioning, timely mediation, and invitations to speak encouraged participation, while approachable and encouraging responses created a sense of safety and trust. They described the teacher as interactive and supportive rather than one-way, making the class dynamic and engaging: "These small but meaningful interactions made the class dynamic and engaging." (LR-S11). Another student recalled offering a comment with missing details yet receiving encouragement from the teacher and peers, which "motivated [her] to contribute more in later discussions" and made her "feel safe to challenge [herself]." (LR-S18). Guidance thus worked on both instructional and affective levels, showing that ideas were valued and building confidence for deeper discussions.

The second element is peer interaction and a supportive atmosphere. Students described the classroom climate as relaxed, enjoyable, comfortable, and pressure-free, which made them more willing to share deeper thoughts (LR-S1, LR-S13). They reported harmonious relationships and friendships, where peers listened, affirmed, encouraged, and accepted one another without judgment about oral English ability. Such experiences built confidence and a sense of belonging, creating what one student called a "positive cycle" where everyone benefited from the exchange (LR-S13). During discussions, peers were open and respectful, and even when opinions differed, students still felt included and valued. This openness fostered richer exchanges and encouraged the consideration of diverse perspectives.

The third element is structured tasks fostering thinking and perspective-taking. Clear steps and thinking-oriented design helped students deepen their interpretation and critical thinking while also opening up new perspectives. They noted that tools such as Story Map structured the plot and event relations and served as a foundation for further analysis. One student explained that mapping the story provided cues he could return to in every discussion, allowing him to infer character details, trace causes and effects, and uncover nuances and underlying issues (LR-S12). Such tasks also supported perspective-taking and sometimes connected with personal experience, enabling students to broaden their thinking and approach ideas more systematically. Overall, the routines did more than make thinking visible—they helped organize ideas, guided analysis, and promoted deeper exploration through group discussion.

The fourth element is developing ease and confidence in expression through interaction. With frequent classroom exchanges, students reported speaking more actively and naturally, while anxiety decreased and confidence grew. They described becoming more fluent, clearer, and more willing to respond by the semester's end. One student, initially fearful of making grammatical mistakes and of peer judgment, reflected that repeated discussions "gradually helped [her] overcome fear of English" and participate more comfortably (LR-S18). Another echoed this: "Since the classroom atmosphere encourages everyone to speak freely, even when I feel shy, I find it easier to join the conversation without pressure." (LR-S15). These experiences show how a supportive climate and peer interaction reduced language anxiety, nurtured confidence, and facilitated fuller participation, especially in an EFL context.

Interconnections among elements in building a thinking culture

Beyond the individual contributions of each element, the analysis also revealed how they worked together to reinforce one another in building a culture of thinking. Teacher guidance and affirmative responses first created emotional safety, which was then amplified by peer trust and support, generating a classroom climate where students felt safe and encouraged to contribute. Building on this supportive atmosphere, structured thinking-routine tasks complemented the affective support by offering clear analytic frames and collaborative requirements that integrated thinking with interaction. These tasks not only helped students organize and analyze ideas more systematically but also prompted sustained negotiation and multi-perspective reasoning. Over time, the interplay

of affective support, peer rapport, and structured routines enabled students to overcome anxiety and develop confidence and fluency in oral expression. In short, teacher guidance laid the foundation, peer relations strengthened openness, structured tasks sustained depth, and the resulting ease of expression further fed back into participation—together forming a virtuous cycle that cultivated a classroom culture where both thinking and social interaction are valued and supported. This synergy highlights that building a culture of thinking is a dynamic process of mutually reinforcing factors rather than a sum of isolated efforts.

Conclusion and discussion

This study yielded two key findings. First, the repeated use of thinking routines led to notable growth in students' thinking moves as well as greater dialogicality in their small-group discussions. Beyond this growth, the analysis highlighted how thinking moves and dialogic moves interconnected during these discussions. This research bridges a gap in prior work by moving beyond product-focused outcomes and ethnographic observations to provide a fine-grained analysis of dialogic and thinking moves, revealing patterns in student small-group talk and the interplay between them that have not been fully examined.

The analysis showed that greater dialogic activity—such as more frequent expressing ideas or building on—did not necessarily indicate deeper thinking. Dialogic moves must connect with explaining, interpreting, and supporting with evidence to raise the quality of discussion. These variations in depth appear to be shaped by the interplay between language proficiency and group dynamics. While unelaborated plot accumulation may reflect language constraints, deeper analysis seemed to emerge when group dynamics established a norm of reasoning. Crucially, when group dynamics foster peer scaffolding to navigate language barriers and encourage elaborative descriptions of plot details, it might lay the groundwork for more evidence-based reasoning. This specific emphasis on evidentiary rigor resonates with Kuhn's (Kuhn & Crowell, 2011) notion of dialogic argumentation and Resnick et al.'s (2018) concept of Accountable Talk. Pedagogically, teachers must look beyond surface-level participation. By monitoring specific moves, educators can better identify where facilitation is needed, model effective exchanges, and design prompts that explicitly press for reasoning, ultimately ensuring that classroom interactions translate into rigorous reasoning.

The second major finding concerned the elements that help cultivate a classroom culture of thinking: (1) teacher guidance and affective support, (2) peer interaction and a supportive climate, (3) structured tasks that foster thinking and perspective exploration, and (4) the development of ease and confidence in expression through interaction. These elements resonate with Ritchhart's (2015) eight forces that shape a culture of thinking. Among these, thinking routines—together with modeling, interactions, and expectations—constitute a driving force of cultural formation. Our findings also echo Brown's (1992) emphasis on social community, showing how students, through dialogic interaction, began to adopt shared discourse, structures, and values. In addition, they support Nystrand's (1997) notion of dialogically organized instruction emphasizes that learning to think requires effective interaction, and that the quality of dialogue establishes a suitable climate for learning while also communicating the teacher's expectations and stance. In our study, this is evident in how teacher mediation—through explicit guidance and an encouraging attitude—both directed inquiry and reassured students, fostering a cultural climate in which contributions were validated and participation was sustained. Taken together, these resonances highlight the centrality of classroom culture and clarify the mechanisms by which such a culture is enacted.

While the findings align with existing frameworks on classroom culture, they further contribute context-specific insights for EFL settings, particularly regarding students' socio-emotional needs and thinking-centered instructional design. On the socio-emotional side, the course reduced language anxiety by creating a safe space for expression, encouraging participation especially among quieter students, and fostering a positive cycle of interaction and motivation when ideas were listened to and respected. On the instructional side, it embedded visible thinking routines as structured tasks with cycles of individual and collective reasoning, supporting interpretation, multi-perspective analysis, and knowledge building. While I acknowledge that language proficiency may pose challenges to students' dialogic performance, the findings indicate that both emotional and instructional support not only enhanced students' confidence and comfort in expressing ideas but also provided an essential foundation and atmosphere for more meaningful peer interaction. Taken together, these findings suggest that effective implementation of thinking routines requires a dual focus on cognitive scaffolding and affective support, ensuring both deeper engagement and higher-quality interaction in EFL classrooms.

This study also carries limitations. Because I adopted purposeful case selection, the analysis focused on two groups and compared their discussions before and after the use of thinking routines. While this comparison yielded important insights into dialogic–thinking move interconnections, it does not capture the full range of possible patterns. Future studies could extend this work by involving more groups and exploring varied routines and moves, thereby deepening understanding of these interconnections and offering further implications for classroom dialogue guided by thinking routines.

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