

# Social Interaction in Online Group Discussion among Iraqi Undergraduate Learners

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## Abstract

This study examines collaborative social interaction in online synchronous group discussions among Iraqi undergraduate learners. The study has been conducted to address a critical gap in previous research, which often relies on quantitative metrics such as word count and overlooks the complexity and function of discourse as a learning medium that shapes collaboration. Using a qualitative explanatory instrumental case study research design, the study investigates how learners construct knowledge through their interactions, employing speech acts as the unit of analysis to glean insights into their learning processes. Data collected from synchronous group discussions on Google Meet were analysed using Atlas.ti software and discourse analysis as the approach. The study uncovers primary speech acts employed by learners that either facilitate or hinder active collaborative social interaction. Notably, the prevalence of inquiry as a significant speech act fosters exploration of diverse viewpoints and deepens understanding, challenging assumptions of limited information exchange in online learning environments. Participants demonstrate flexibility in shaping discussions to achieve mutual understanding. These findings hold significant pedagogical implications in the Iraqi context for learners and researchers. The study emphasizes the importance of some discourse practice in online synchronous group discussions to promote collaborative learning. The study contributes to scholarly understanding of online learning and advocates future research exploring collaboration and technology-enhanced learning environments.

## Keywords

Online Discussion, Collaborative Learning, Speech Acts, Social Interaction

## 1. Introduction

In the contemporary landscape of higher education, digital learning has emerged,

with asynchronous and synchronous discussions now recognized as pivotal platforms for collaborative learning (Collazos et al., 2021). However, as online learning evolves, there is a growing emphasis on cultivating collaborative learning environments, underscoring the importance of focusing on the learning process as much as the outcome in educational contexts (Camilleri & Camilleri, 2022). The needs for an interactive learning approach bring to the fore a series of pertinent questions that center around the role and effectiveness of online discussion in fostering such collaborative environments, and in turn, propose a need for a more analytical and critical approach towards assessing its contribution to learning. Specifically, there is a burgeoning interest in evaluating whether and how online discussion can drive meaningful student interactions to facilitate learning (Maia et al., 2021).

However, while the widespread adoption of online collaborative learning platforms has significantly increased efforts to investigate and improve online learning (Zhou & Ye, 2024; Zhang et al., 2024; Magfira et al., 2024), there remains a critical gap in the scholarly discourse regarding the intricate dynamics of collaborative knowledge construction in online group discussions (Souza et al., 2024). Existing research has focused on quantitative measures, such as participation rates and word count, failing to address the complexities of student discourse (Martin et al., 2020). Scholars have overlooked the subtle yet significant interaction patterns that drive the success of online discussions, often reducing them to surface-level metrics like participation frequency (Azmat & Ahmad, 2022). Currently, there is still a lack of in-depth exploration into the nuanced dynamics of social interaction that underpin online collaborative knowledge construction (Martin et al., 2020). Furthermore, studies have documented decreased motivation and engagement in online learning settings, which can negatively affect academic performance and overall learning experiences (Almendingen et al., 2021; Ouyang et al., 2023). This gap in the literature underscores the need for a more nuanced exploration of the discourse of the dynamics in online social interaction that define online collaborative learning.

Therefore, the current study investigates the dynamics of social interaction that shape collaborative learning in an online environment by examining specific discourse practices. To be more specific, first, the study investigates speech acts used by Iraqi undergraduate learners in online group discussions. Second, the study examines speech acts that play a crucial role in interpreting interaction beyond literal meanings, conveying intentions, and fostering shared understanding among participants (Joksimović et al., 2019; Van Dijk, 1977). The current study examines how speech acts influence group discussions and learning outcomes. Specifically, we investigate the types of speech acts displayed by Iraqi undergraduate learners and how speech acts influence group discussions and learning outcomes.

## 2. Literature Review

### 2.1. Related Theories

This study embraces collaborative learning principles, recognizing Laurillard (2009) for their foundational work in conceptualizing online collaborative learning as a

social phenomenon. Therefore, learning is a collective process in group activities (Roschelle & Teasley, 1995). Collaborative learning draws support from the sociocultural theories, especially Vygotsky (Vygotsky & Cole, 1978). Thus, collaborative learning unfolds through interactions within a social context where interaction plays a crucial role in fostering learning at the group level (Dawson, 2010).

The dynamics of social interaction, characterized by collective utterances, form the basis of our investigation. Each student's contribution resonates through subsequent interactions, highlighting the communal nature of understanding (Vygotsky & Cole, 1978; Wertsch et al., 1993). In addition to examining the dynamics of interaction, investigating collaborative learning through the lens of constructionism becomes increasingly significant. This approach allows for a deeper exploration of how learners interact and jointly construct knowledge (Laurillard, 2009). Understanding how learners interpret and respond to social exchanges is essential. This underscores the significance of studying speech acts to discern language comprehension and subsequent actions (Stahl, 2003).

Speech acts are tasked with specifying how individuals perform and understand acts of language, and subsequently act upon that understanding. Defined within pragmatic theory, they represent the fundamental units of communication through language, encompassing a wide range of communicative actions such as assertions, questions, requests, promises, and apologies, each imbued with its own illocutionary force and intended effect on the listener. Of particular interest in our study is Searle's (1976) theory of speech acts, a refined conceptualization of Austin's (1975) work, providing a general framework for understanding illocutionary intentions behind utterances. Analyzing learner discourse through identifying constituent speech acts offers insights beyond structural elements, granting access to intended purposes and social actions. This theory provides explanation of how students strategically employ language during interactions and construct knowledge collaboratively through discourse. This theory provides insights into the intended action of a communication act and the extent of shared understanding between peers participating in communication (Stahl, 2003).

Speech acts shape social norms and communication patterns. For example, expressions of agreement, disagreement, encouragement, and validation shape the norms of discourse, fostering a conducive atmosphere for collaborative learning. In essence, understanding speech acts illuminates the complexity of collaborative learning within structured social activities. By examining the nature and function of speech acts, educators and researchers gain valuable insights into the dynamics of collaborative learning and the development of social and communicative competencies among students.

## 2.2. Previous Studies

While the role of interaction has been acknowledged as integral to collaborative learning, deeper comprehension of mechanisms shaping online interactions remains nascent (Loh et al., 2024). This extensive literature review synthesizes

scholarship on online learning interaction dynamics. As internet prevalence grows, studies have proliferated examining online modalities (Fathi et al., 2019; Machtmes & Asher, 2000; Howell et al., 2003). Sociocultural influences underwent expanded examination considering cultural differences (Zhao et al., 2021), gender (Yu, 2021), and identity (Phirangee & Malec, 2020). While progress has elucidated basic concepts, qualitative comprehension of context-specific interaction patterns remains limited (Maia et al., 2021). Comprehending localized sociocultural influences warrants extension beyond quantitative metrics to holistically grasp interactive nuances. Addressing the identified gaps necessitates a more comprehensive qualitative analysis, particularly in the post-pandemic era, where online learning has flourished (Traxler et al., 2023).

Concerning online learning within the Iraqi context, existing studies have predominantly focused on identifying challenges faced by learners and educators, as well as examining the infrastructure supporting the implementation of online learning in Iraq. Al-Azawei et al. (2016) explored the barriers and opportunities of e-learning implementation in Iraqi public universities, shedding light on the complexities of integrating technology into the educational landscape. Similarly, Ameen et al. (2019) provided insights from a student perspective, aiming to understand the factors influencing the successful integration of e-learning systems in higher education institutions in Iraq. Furthermore, Al-dulaimi et al. (2018) examined the existing infrastructure and challenges towards establishing smart learning environments in Iraqi schools, highlighting the need for advancements in technological support. However, while previous studies have been instrumental in uncovering impediments to online learning adoption, it's essential to acknowledge the emerging preference for online learning among certain educational stakeholders. Mohammed and Al-Bakri (2022) examined Iraqi EFL preparatory school teachers' preferences for online learning, signalling a growing interest in leveraging digital platforms for educational delivery. Additionally, Hasan et al. (2023) offered perspectives on the impact of online learning, both pre- and post-COVID-19 pandemic, underscoring evolving attitudes towards online learning.

However, to provide a comprehensive understanding of online learning practices in Iraq, future research endeavors should delve into the dynamics of interaction in digital learning environments (Chen et al., 2020). This entails exploring how learners and educators engage with each other, collaborate on tasks, and build a shared understanding in immediate online synchronous settings. However, this immediacy hinges on understanding the dynamics of the discussion, including collaborative social interaction and knowledge construction strategies (Ye & Pennisi, 2022; Wang & Liu, 2020). By focusing on these aspects, researchers can uncover effective strategies for facilitating meaningful social interaction in online learning contexts, thereby enhancing the quality and effectiveness of digital education initiatives in Iraq.

The literature review establishes the evolving landscape and persistent require-

ments for further investigations of online learning interaction dynamics and social interaction. It underscores ongoing efforts to fully grasp the mechanisms shaping collaborative learning in online avenues. As noted earlier, qualitative insights into context-specific interaction patterns remain limited. Comprehending localized sociocultural influences warrants extension beyond quantitative metrics to holistically grasp interactive nuances. The present study, thus, aims to progress in understanding collaborative learning through online discussion, employing a qualitative approach to the study.

### 3. Methodology

#### 3.1. Research Design and Participants

This study adopts a qualitative explanatory research design, using the instrumental case study approach celebrated for its ability to intricately explore phenomena within distinct contexts (Merriam, 1998). The explanatory case study approach seeks not only to describe but also to clarify how specific communicative behaviors, particularly speech acts, affect collaborative processes. Our investigation focuses on Iraqi undergraduate learners navigating their third academic year within the English department of a private university in Iraq. Within this inquiry, we concentrate on a carefully selected group of four undergraduate learners drawn from the “Pedagogy and Curriculum Innovations” course. This diverse group includes two female students. Pseudonyms are given to all participants; S refer to the student. The students are numbered from S1 to S4. The participants, aged 21 to 23, were deliberately chosen for their substantial experience in online group discussions, ensuring a nuanced exploration of our subject matter. Through a purposive sampling approach, we deliberately chose participants with substantial experience in online group discussions, ensuring a nuanced exploration of our subject matter. Our inclusion criteria mandated that participants be English majors, while our exclusion criteria dictated the exclusion of learners beyond the third stage, those not affiliated with the specified university’s English department, and individuals not actively engaged in online academic discourse. These criteria facilitated a focused and coherent examination of our research inquiries within a specific cohort immersed in the study’s context. For ethical considerations, names have been altered or anonymized in this study. All participants were familiar with basic digital tools and had prior experience using online platforms for educational purposes.

#### 3.2 Data Collection

Data collection spanned two weeks and took place through synchronous group discussions on Google Meet. The platform facilitates immediate real-time interaction. While recognizing potential limitations associated with synchronous platforms, such as scheduling constraints, these were deemed minor compared to the advantages of real-time dialogue. The discussion revolved around the topic of “The Role of the First Language in Second Language Learning,” an

assignment provided by the lecturer. The learners especially discussed the following question: Do you advocate for a strict English-only environment, emphasizing thinking and communication exclusively in English, or should learners' first language be used in teaching English? The study meticulously documented discussions by crafting anonymous verbatim transcripts of all exchanges, totaling about one and a half hours of online discussion. Methodological rigor was maintained through various strategies. Prolonged engagement with the data was fostered through repeated readings, enhancing familiarity and depth of understanding. An audit trail meticulously documented each stage of the process. Despite acknowledging potential reactivity effects, they were deemed minimal given the synchronous format. This methodological approach aimed to generate an exhaustive, rich qualitative dataset conducive to comprehensive analysis aligned with the research inquiries.

### 3.3. Data Analysis

At the heart of our discourse analysis, the Speech Act Theory by [Searle \(1969\)](#) offers insight into the communicative intentions underlying utterances. Using [Herring's et al. \(2005\)](#), this study utilizes an extended speech act analysis, tailored for online discussions. The pragmatic theory of language bridges the gap between utterances and interaction, focusing on how language acts are socially interpreted regardless of speakers' internal states. We achieved a Cohen's Kappa of .81 indicating a strong level of agreement in interpreting and categorizing the data. This robust agreement enhances the validity of the analysis.

To delve deeper into these dynamics, we utilize the Interaction Analysis Model (IAM), which outlines five phases of interaction: Phase I involves sharing/comparing information, Phase II involves exploring disagreements and inconsistencies among ideas, Phase III involves negotiating meanings and constructing knowledge, Phase IV involves evaluating or modifying ideas, and finally, Phase V entails reaching new agreements or applying new meanings. These phases reflect the complete process of negotiation during discussions in an academic context ([Gunawardena et al., 1997](#)). These phases provide a framework for understanding how learners navigate through collaborative discussion. By coding discussion turns according to these phases, we aim to elucidate how participants interact back and forth collaboratively, aligning with the emphasis on interaction in the process of learning in the sociocultural theory.

The analysis uncovers the intricate relationship between speech acts and social interaction, shedding light on the mechanisms underlying collaboration within the framework of constructionism ([Laurillard, 2009](#)). The analysis captures the evolutionary trajectory of discussions. For example, throughout the shared account phase, participants engage in various forms of knowledge construction, sharing personal experiences and expressing dissonance. This dynamic interplay underscores the complexity of discussions, where diverse processes and communicative functions coalesce within each phase of learning. The study uses Atlas.ti

software version 24 to provide a visual overview of the learning dynamics observed in the online discussions.

## 4. Results

### 4.1. Speech Acts Used by Iraqi Undergraduate Learners

The first objective of this study is to examine the types of speech acts used by Iraqi undergraduate learners in online group discussions structured around [Gunawardena et al.'s \(1997\)](#) framework of the Interaction Analysis Model (IAM). The IAM, comprising five phases, provides a framework for understanding how speech acts enable participants to share, negotiate, and consolidate knowledge in collaborative learning contexts ([Paulus, 2006](#)). In the first phase, Sharing and Comparing of Information, learners primarily focus on exchanging and comparing information to build a collective pool of ideas. Here, learners often use speech acts such as informing, where they share factual details relevant to the topic; making claims that assert their own beliefs; directly accepting, which signals agreement with peers; posing inquiries for further clarification; and issuing invitations to encourage others to contribute to the discussion. These speech acts foster an open environment that welcomes diverse perspectives.

In the second phase, Exploration of Inconsistencies, participants identify and examine differing views, which is essential for critical engagement. Speech acts in this phase commonly include counterarguments, where learners indirectly reject certain ideas, expressing dissonance without overtly disagreeing. This indirect approach was predominant across multiple sessions, offering a way to introduce alternative viewpoints without confrontation. Learners also engage in direct rejection, where they openly disagree with statements, thereby establishing a platform for examining contradictions in understanding. Questioning is another crucial speech act here, as learners challenge ideas to encourage deeper reflection and critical thinking. The third phase, Negotiation of Meaning, involves working toward mutual understanding. During this phase, learners use speech acts such as elaboration, where they expand on or clarify ideas to bridge any gaps in understanding and build consensus. Informing and making claims occasionally occur here as well, providing additional details to support a participant's perspective. Acceptance is frequently employed as learners acknowledge and confirm shared understanding, which contributes to co-constructed knowledge.

In the Testing and Modification of Proposed Synthesis phase, learners begin to test and refine ideas collaboratively. Speech acts such as informing are often used to introduce new evidence or observations that support the synthesis of ideas. Claims are asserted to test the validity of points, while elaboration allows participants to add detail and clarity, strengthening the collective understanding of synthesized ideas. Finally, the Agreement Statement phase marks the consolidation of group consensus, with participants affirming a collective understanding. In this phase, speech acts like summarizing, bringing together the group's contributions and highlighting the shared conclusions, while acceptance signals satisfaction

with the outcome and affirms the collaborative process. The analysis of these phases provides valuable insights into the social interaction dynamics within online group discussions, addressing Research Objective 2 (RO2). By focusing on the transitions between phases, this study illustrates how certain speech acts, such as questions, agreements, and clarifications, facilitate or hinder progression from one phase to the next, thereby shaping the overall flow of discussion and collaborative learning.

## 4.2. Speech Acts and Social Interaction

This section presents the analysis of the second objective, which focuses on how speech acts facilitate or hinder social interaction, i.e., the transitions from Phase I to Phase V, in [Gunawardena et al.'s \(1997\)](#) framework. A key discovery is the essential role of questioning in sharing/comparing information (Phase I), where questions do not simply gather information but help to focus the group's attention and steer the conversation toward a shared objective. Questions push other participants to momentarily pause other speech acts, aiding in establishing a collaborative foundation.

S1: I think one way to teach a second language is by using examples from students' lives. So, can we consider a bilingual approach to teach better?

S2: I feel a bilingual approach helps students understand difficult concepts more easily.

S4: You know, when we explain difficult content, we need to use the first language.

S3: Mixing both can work better. Teachers can introduce new content using English and switch to Arabic to clarify important concepts when students seem confused.

Extract 1: The Speech Act of Questions in Sharing/Comparing of Information.

In Extract 1, S1 question about adopting a bilingual approach becomes a focal point, prompting the group to pause other initial contributions and engage in a focused exploration of the topic. This shift illustrates how questions can direct attention, as each learner responds with suggestions and inquiries that build on the initial question. For example, S2 highlights how bilingual explanations could aid comprehension, while S3 and 4 expand on specific aspects, discussing the balance between immersion and clarity. This dynamic shows how a question can center the group's attention on a shared issue, encouraging collaborative exploration and temporarily side-lining other speech acts. This approach reinforces the discussion's collaborative foundation, as learners work collectively to evaluate the potential of bilingualism in second-language teaching. In addition, the speech act of inquiry facilitates a transition into Phase II of expressing dissonance. As we can, after S1 asked the question, S2 and S4 expressed different understandings regarding bilingual approach in the classroom.

On the other hand, invitations to participate serve a vital function by creating a shared space for knowledge exchange, where contributions from all participants enrich the learning process. However, invitations often fail to prompt the progression

into expressing dissonance (Phase II), which is essential for deeper engagement. Instead, they tend to maintain the discussion at the level of sharing/comparing information (Phase I).

S1: For engaging lessons, we can use visuals or storytelling—they are effective. What do you all think? Do you have any ideas?

S2: Right, using visuals is important, and we can incorporate cultural elements from English culture to help learners make connections.

S3: That's good. Using cultural symbols makes the language feel more relevant to students.

S1: Right, using visual elements can help learners' understanding.

S2: Yes, visuals help them build confidence in speaking.

S3: Yes, right. It helps, especially at the beginning.

Extract 2: The Speech Act of Invitation in The Sharing/Comparing of Information.

In Extract 2, the speech act of invitation encourages participation to add ideas about using visuals, cultural elements, and pronunciation in teaching. However, the discussion remains at the level of sharing/comparing information (Phase I), without moving into expressing dissonance (Phase II) to drive deeper levels of collaboration. This highlights how invitations can sustain surface-level dialogue without prompting critical examination or negotiation of ideas. In some cases, the speech act of invitation shifts the conversation from information sharing (Phase I) directly to meaning negotiation (Phase III) without adequately addressing the stage of dissonance (Phase II), which is crucial for fostering genuine social interaction.

S1: I think using the bilingual approach is really effective. What do you think, S2?

S2: I agree. Using only English makes a difference. It helps improve all language skills.

S3: That's a good idea. Using a bilingual approach helps create an immersive learning environment.

S1: What do you mean by an immersive learning environment?

S2: It's where learners are immersed in English, using only English with no other means of communication. This is what we mean by immersion.

S3: Yes, right.

Extract 3: The Speech Act of Invitation in Sharing Comparing of Information.

In this extract, the speech act of invitation moved the discussion into meaning negotiation (Phase III), where the learners moved elaborately on previous ideas and negotiated immersion as well. What stands out, however, is the response to shared information, particularly when learners employ the speech act of acceptance. The timing and context of acceptance are crucial for sustaining a collaborative interaction. Immediate acceptance following others' informing, claiming, or suggesting can disrupt the flow, often derailing idea development and limiting the depth of exploration. Accepting other responses directly prevents further

discussion especially in sharing/comparing information (Phase I). However, acceptance is important in meaning negotiation (Phase III) to take the discussion further after they negotiate different concepts and elaborate on others' ideas especially after dissonant discussion.

In the expressing dissonance (Phase II) mostly the learners use indirect rejection like counterargument and question to express disagreement. This dialogue illustrates how indirect rejection through counterarguments and questions encourages a nuanced discussion, allowing learners to collaboratively negotiate and refine their ideas.

S1: I think grammar is needed in teaching English. Without a good foundation in grammar, students might struggle with speaking.

S2: But do you think communication helps more for them to feel comfortable using the language in real life? If they focus too much on grammar, they might not be able to speak.

S4: Good point, but students may develop bad habits if no one teaches them grammar early on. How can we help them distinguish incorrect sentences if we only teach communication? Even in communicative approaches, grammar is important. In the end, learners need to learn the entire system of the language, not just speaking. This is what we have in the direct method that the Dr. talked about last time.

S3: I see where you're coming from. What if learners are taught grammar in context, so students get practice communicating while also learning grammar? This is what the direct method suggests, as S4 mentioned.

Extract 4: Indirect Disagreement in Expressing Dissonance.

As we can see in Extract 4, indirect rejection promotes deeper engagement, facilitating a transition into meaningful negotiation (Phase III). This distinction indicates that indirect rejection fosters a more collaborative and constructive interaction, as learners debate rather than simply dismiss opposing views. Also, inquiry that serves rejection is crucial for facilitating what is termed collaborative dissonance. In contrast, as we can see in Extract 5, direct rejection is confined to the reflection stage, where it risks becoming merely a pool of information. However, this stage does not necessarily improve collaboration, particularly using direct disagreements.

S1: Immersing learners is good. It helps them think in English to learn faster.

S2: No, using the native language helps them understand difficult content.

S1: No, they need to be immersed and think in English without translating.

S2: With a bilingual approach, they can grasp the material.

S1: But they do not develop fluency. That's why using only English is better.

S2: I don't think so. Adding native language support doesn't mean they'll depend on it.

Extract 5: Direct Rejection in Expressing Dissonance (Phase II).

Extract 5 shows that direct rejection causes the discussion to revert back to the information-sharing phase or be confined to dissonant discussion, where learners

focus on proving or defending their points rather than advancing the conversation. This shift limits the potential for deeper engagement. In contrast, indirect rejection encourages more thoughtful interaction and facilitates meaningful negotiation, i.e., a transition into Phase III, as we can see in extract 4. It enables learners to challenge ideas while keeping the discussion open for further exploration and refinement. By promoting collaborative dissonance, indirect rejection prevents the discussion from becoming stagnant and contributes to a more dynamic and constructive exchange of ideas. Without this deeper engagement, discussions tend to remain superficial, particularly when direct rejections dominate.

Expressing dissonance (Phase II) is important to collect diverged ideas from learners to prevent surface level discussions. However, sometimes the discussion can move from Phase II to III. Phase III can manifest as an immature phase where learners transition directly from information sharing (Phase I) to meaning negotiation (Phase III) without engaging in the expression of dissonance (Phase II). This often occurs when the speech act of invitation in early discussion does not elicit divergent opinions, as discussed earlier.

This study explores Phase III (Meaning Negotiation) within online collaborative learning discussions, highlighting the critical role of elaboration in resolving dissonance and advancing group understanding. In Phase III, the learners commonly engage using the speech act of elaboration to address and resolve disagreement discussions or expand on different ideas, leading to acceptance, an outcome not accounted for in [Gunawardena et al.'s \(1997\)](#) original framework. Direct acceptance signifies a resolution, yet instances of meaningful negotiation do not always result in consensus. When they do not reach a consensus, the participants recognize the need for further clarification and loop back to Phase I (Information Sharing), indicating the cyclical and recursive nature of these discussions. Phase III, in this study, aligns with Vygotsky's Zone of Proximal Development (ZPD) and [Smith's \(1994\)](#) GMC cycle, underscoring those collaborative interactions scaffold cognitive growth. Without acceptance or resolution, however, elaboration may lose momentum, signaling the importance of both structured interactions to achieve a shared understanding.

Testing synthesis (Phase IV) typically occurs when learners apply discussed ideas to their real-life experiences, often utilizing the speech acts of repairing. This phase usually appears as learners show how concepts relate to their own contexts. In the later original reformulation stage, learners revisit these applications, employing the speech act of repair to refine their ideas based on a deeper, evolving understanding. This progression from sharing initial experiences to revising them represents a natural flow in discussions, as learners work toward a more cohesive and informed grasp of the topic.

S2: Let us say that the students can start with communication and point out important points in the grammar during the conversation to show students, for example using the past when we talk about events in their daily lives, instead of teaching grammar rules before they even understand the context. So, we do not

teach either grammar or communication.

S3: Yes, that's it. It allows students to see the purpose of grammar in real-world language use. They don't just learn the rule in isolation, and they apply it as they speak.

S2: And I think this approach could also help reduce the fear or confusion some students have when they first encounter grammar. Instead of seeing it as something abstract, they get to see it in action, and that makes it more accessible.

S1: I agree. It sounds like this way, students will learn grammar as a tool, not just a subject to memorize.

Extract 6: The Speech Act to Repair in Testing Synthesis (Phase IV)

In extract 6, S2 engages in testing synthesis by reflecting on the idea presented by S3 and refining their understanding of the approach in extract 4. Initially, they were uncertain about integrating grammar with communication, but after S3's clarification, S2 suggested a revised idea that blends communication practice with grammar integration, reinforcing the connection between language use and grammar in a more meaningful context. This repair enhances their understanding by revising their original concept, incorporating feedback, and moving the discussion toward a more cohesive approach.

Finally, the statement of agreement (Phase V), using the speech act of summarization, assesses the progress of the conversation and confirms that key points have been understood and agreed upon (See extract 7). This process of summarization helps solidify collective knowledge and guides the discussion toward closure.

S1: To summarize, we talked about how group projects can help students build communication skills.

S2: Right, and I think we agreed that group projects need clear roles to help balance the workload, even if some students still end up doing more than others.

S3: Exactly, and we've seen that if roles are assigned, it might help manage those issues better. But, I still think it doesn't fully solve the problem of students who are too shy to speak up.

S4: True, we're saying it could help, but we're not sure it's a complete solution. Maybe it's something we'd need to adjust based on each group's dynamics.

S1: So, in summary, we've identified both benefits and some limitations to using group projects. It seems we agree on the potential, but we'd still need ways to address the quieter students.

Extract 7: The Speech Act to Summarize in Agreement Statement (Phase V)

However, this does not always equate to consensus. While learners may summarize what has been discussed, it does not necessarily mean that they have reached an agreement. Even in cases where the discussion appears scattered or unresolved, learners use summarization as a tool to reflect on the interaction, regardless of whether true collaboration has occurred.

## 5. Discussion

This study delves into the dynamics of online group discussions, exploring the

interplay between speech acts and collaborative social interaction. The study not only presents speech acts but delves deeper into their role in steering the flow of discourse and shaping learning outcomes. The study illuminates how speech acts underpin each phase, facilitating the flow of discourse and contributing to learning outcomes. For instance, in Phase I—“sharing and comparing information,” participants engage in active information exchange facilitated by five speech acts, mainly through inquiry. This challenges the common misconception that online learning lacks information exchange (Azmat & Ahmad, 2022; Derakhshan & Shakki, 2024). In addition, the study goes against the previous studies (Ciampi et al., 2018; Paulus, 2006; Lucas & Moreira, 2010) that indicated in online group discussions the learners cannot go beyond sharing/comparing information (Phase I). In this study, we have found that some discourse practices, such as invitation in Phase I or direct rejection in Phase II, can hinder the transition from Phase I and II to Phase III.

Moving into Phase II—“exploration of dissonance,” we have found that the learners use more indirect disagreement. This study explores how direct and indirect rejection affects transitions into deeper phases of social interactions. Indirect rejection using inquiry and counterargument plays a pivotal role in navigating disagreements and deepening understanding. Unlike previous studies that analyze disagreements retrospectively (Yin et al., 2012; Mukherjee & Liu, 2012). In contrast, direct rejection cycle backs the discussion into sharing/comparing of information (Phase I).

The real-time analysis offers deeper insights into the dynamics of dissonance and its resolution. In our study, learners, in some instances, could not understand the function of indirect disagreement, which sometimes led to the misdirection of discussions. This observation sheds light on a novel insight that justifies previous investigations. Particularly in EFL contexts, and especially within the Iraqi context, learners often resort to direct disagreement, as evidenced in the literature (Al Jaid & Ghazanfari, 2023). This preference for direct disagreement may stem from the challenges associated with interpreting and navigating the nuances of indirect disagreement, as observed in our study.

Phases III, IV, and V of the IAM observe decreased engagement compared to Phases I and II. Learners’ participation in Phase III was sporadic. Later phases might be more challenging, potentially due to the higher cognitive demands associated with these phases, as suggested by Gunawardena et al. (1997) and supported in the literature (Lehtinen et al., 2023). Future studies could delve into the nuances of each phase to determine the appropriate interventions: when to pose questions, when to prompt summarization, and when to test ideas against course materials, fostering collaboration in later phases, as illustrated by the IAM. By comprehensively understanding the fluctuations in engagement rates across phases, researchers can develop targeted interventions to address potential barriers and optimize learning experiences.

In Phase IV, which entails the testing and modification of proposed syntheses,

student participation was notably limited, with repair emerging as the primary speech act used to refine group comprehension. Phase V, the culmination of group discussions, saw learners employing inquiry, elaboration, and summarization to encapsulate agreements, apply newfound knowledge, and reflect on points of consensus. This highlights a consistent pattern of learner engagement with speech acts across the phases, with inquiry maintaining its significance throughout the discussion.

Notably, inquiry, indirect rejection and summarization underscore their multifaceted role across the IAM phases. By fostering a culture of inquiry, participants can delve into complex concepts. Our analysis reveals that inquiry is utilized in four out of five phases. This act helps learners to explore diverse viewpoints and collaboratively deepen their comprehension of the subject. It functions not only as a means of sharing information but also as a mechanism for steering discussions towards the main topic and maintaining coherence throughout the discourse. The strategic utilization of inquiry across phases facilitates interaction. Our findings align with [Joksimović et al. \(2019\)](#), who also emphasize the importance of inquiry in correcting misleading discussions. Also, challenging assumptions using indirect disagreement stimulates deeper social interaction and critical thinking, ultimately leading to a more comprehensive understanding of the subject matter. Finally, summarization helps learners unify their understanding and ensure that all of them are on the same page, especially in an online context where non-verbal communication is lacking.

However, in contrast with [Joksimović et al. \(2019\)](#), our study presents a novel contribution by highlighting the absence of a moderator in guiding the discussion. Despite participants holding similar social power status, learners took on a moderator-like role by employing directive questions to guide the discussion without exerting authoritative control. Therefore, the participants take turns assuming a facilitative role, guiding the discussion, posing thought-provoking questions, and summarizing key points to maintain focus and momentum.

While the moderator's role falls beyond the scope of our study, exploring how moderators influence interactions across IAM phases could rectify some misconceptions in the literature. For example, [Tirthali and Murai \(2021\)](#) cautioned against excessive facilitation, suggesting a nuanced examination of interventions but teachers as/or moderators. Our research calls for a detailed exploration into speech acts that can be used by moderators across the IAM phases, considering optimal timing and methods. Effective facilitation might redirect discussions back on track, avoiding prolonged disputes, especially in Phase III, where it could disrupt consensus-building.

Facilitative speech acts are pivotal in shaping online discussions and enhancing collaborative social interaction. Encouraging acts, like support or motivation expressions, foster inclusivity and confidence, promoting active engagement and a sense of belonging. Acknowledging contributions validates participants, encourages ongoing participation and preserves mutual respect. Summarizing speech

acts help organize information, enhancing comprehension and fostering consensus by establishing common ground. Additionally, redirecting speech acts maintains discussion focus, steers participants towards objectives, and curbs tangential discussions. Strategically using these facilitative speech acts enhances communication effectiveness, and advances collaborative learning in online discussions.

## 6. Implications and Applications

Our study offers insights for educators involved in online learning environments. By understanding the dynamics of speech acts and social interaction for collaboration, educators can facilitate online discussions to promote active learning. Incorporating strategies to encourage diverse viewpoints, such as setting clear goals, and promoting inquiry, can enhance the effectiveness of online learning experiences. Also, educators or learners responsible for moderating online discussions can benefit from training that emphasizes effective facilitation techniques across the different phases of interaction. By developing skills to navigate discourse dynamics, moderators can create supportive and inclusive environments that foster meaningful learning experiences for participants. Also, educators can use the insights gained from our analysis to design discussion activities that promote critical thinking, collaboration, and knowledge construction. By integrating online discussions into the curriculum in a purposeful and structured manner, educators can enhance the relevance and effectiveness of online learning experiences. Regarding technology, researchers can leverage technological tools and platforms to support collaborative learning experiences. Incorporating features such as visual cues, interactive elements, and custom feedback can enhance interaction in online discussions.

Further investigation into the role of moderators, the impact of homophily on group interactions, and the effectiveness of different communicative strategies like speech acts in different cultures can contribute to a deeper understanding of online learning dynamics as a culture-related issue. Additionally, longitudinal studies exploring learners' discussions can provide other valuable insights for educational practice.

## 7. Conclusion

By analysing online discussions across the five phases of the IAM, we provide valuable insights into the dynamics of online collaborative learning. Our findings emphasize the significance of various speech acts in shaping the course of online discussions and enriching learning experiences. Moreover, our study contributes to the growing body of literature on online learning and collaborative discourse by offering insights into the mechanisms underlying effective online discussions. By examining natural data within authentic learning contexts, we provide a rich and contextually grounded understanding of online discourse dynamics, which can inform pedagogical practices, moderator training programs, curriculum development efforts, and technology integration initiatives. By offering insights into

the complexities of online discussions and the factors influencing their effectiveness, our study advances scholarly understanding and offers practical guidance for educators, researchers, and instructional designers engaged in online learning environments. We hope that our findings will stimulate further research and dialogue in this important area and contribute to the ongoing efforts to enhance online learning experiences for students worldwide.

However, this study is subject to several limitations that open avenues for future research directions. The small sample size and the specific context, undergraduate English majors in a private university in Iraq, restrict the applicability of the findings to other educational settings. Also, the research primarily focuses on observable actions without delving into participants' internal thought processes, intentions, or justifications for their communicative behaviors. This surface-level analysis might overlook the underlying cognitive and emotional dynamics shaping interactions. Future studies could integrate reflective interviews to capture learners' perspectives on the role of speech acts in their interactions and how these acts impact their engagement and learning outcomes. Additionally, the study did not solicit participants' preferences for discussion topics, which might have affected their level of engagement and the variety of speech acts they employed. The absence of politeness theory as an analytical lens further limited insights into how interpersonal considerations, such as avoiding conflict or maintaining social harmony, shaped communicative choices, particularly in relation to rejecting or expanding upon ideas. Moreover, the analysis concentrated solely on synchronous discussions, excluding comparisons with asynchronous or face-to-face formats, which might have yielded contrasting findings. Gender-related variations in speech act usage were not explored, nor were participants separated by gender, potentially influencing interaction patterns. Also, while speech acts served as a key framework for analyzing the discourse, this focus may have sidelined other significant elements of online interaction, such as nonverbal communication, emotional tone, and the influence of digital platforms. A broader perspective could provide a more holistic understanding of the factors influencing collaborative learning in virtual spaces. Lastly, while the participants shared the same academic year, differences in their language proficiency were not accounted for, which may have impacted their choice of speech acts and the overall progression of discussions. Addressing these limitations in future research could enrich our understanding of the nuanced dynamics of speech act use and collaborative interaction in online educational contexts.

### **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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