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Group work dynamics and the role of leadership in face-to-face and online second language classes

Tomohito Hiromori 💿

School of Global Japanese Studies, Meiji University, Nakano-ku, Japan

Correspondence

Tomohito Hiromori, School of Global Japanese Studies, Meiji University, 4-21-1 Nakano, Nakano-ku 164–8525, Japan. Email: hiromori@meiji.ac.jp

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Abstract

This study aimed to investigate how having a student in a leader role impacts group work dynamics (GWD) in faceto-face (FTF) and online communication. A total of 144 pre-intermediate English learners worked in groups of three on a picture-description task under one of the four conditions: with or without a leader in FTF or online settings. All exchanges were recorded, transcribed, and analyzed using a GWD measuring instrument to explore the process of GWD. The results showed that GWD scores were lower in the online condition than in FTF, particularly when there was no designated leader. Furthermore, when comparing the GWD scores of the leader-role students and other students, leaders consistently scored higher across most GWD characteristics, regardless of communication mode. This study suggests that assigning a leader-role student can facilitate group work activities, especially in online communication. It sheds light on students' behaviors in group work contexts and highlights the importance of leadership in promoting effective group work.

KEYWORDS

face-to-face communication, group dynamics, group work, leader-ship, online communication

概要

本研究では、リーダー役を担当する学生が、対面およびオン ラインにおけるグループワークダイナミクス (GWD) にど のような影響を与えるかを調査することを目的とした。初 中級の英語学習者144名が、3人一組で、対面またはオンラ インのいずれかでリーダーの有無を条件とした写真描写タ スクに取り組んだ。すべての会話は録音され、文字起こし され、GWDの測定具を用いて分析された。結果から、オン ライン条件下におけるGWDスコアは,指定されたリーダー がいない場合に、対面よりも低かったことがわかった。さ らに、リーダー役の学生と他の学生のGWDスコアを比較す ると,リーダーはどのコミュニケーションモードにおいて も,ほとんどのGWD特性で一貫して高いスコアを示した。 本研究はリーダー役の学生を割り当てることが,特にオン ラインコミュニケーションにおいて、グループワーク活動 を促進できることを示唆している。また,グループワーク の文脈における学生の行動を明らかにし、効果的なグルー プワークを促進するリーダーシップの重要性を強調してい る。

対面コミュニケーション,グループダイナミックス,グループワー ク,リーダーシップ,オンラインコミュニケーション

1 | INTRODUCTION

Group work (GW) has long been used in language teaching. Pedagogically, instructional approaches, including taskbased, project-based, and cooperative/collaborative learning, have emphasized the crucial role of groups in the classroom (Gras-Velazquez, 2021; Willis & Willis, 2007). Specifically, GW offers learners a valuable opportunity not only to interact and produce language, both of which are fundamental for language acquisition (Long, 1996; Swain, 2005), but also to engage in challenging tasks that would be difficult to accomplish independently (Lantolf, 2006). By incorporating GW into language learning programs, learner motivation, engagement, and achievement can be positively impacted (Chang, 2010; Ji-Young, 2021; Poupore, 2016). These benefits underscore the significance of GW in L2 classrooms and its potential to bridge the gap between classroom-based learning and real-world language use, as well as to enable learners to practice various transversal skills, preparing them for diverse communication contexts.

To achieve the most advantageous outcomes in GW, a positive climate is necessary (Dörnyei & Murphey, 2003; Poupore, 2016, 2018), where all members actively contribute and support one another. This prevents engagement from being limited to specific individuals, while others remain passive or dismissive of ideas. Learners in leadership roles are vital for fostering a positive GW environment (Leeming, 2019), as leaders can guide and inspire the group. However, if cohesiveness is overly strong or the group lacks interest in outcomes, a leader may not emerge naturally (Forsyth, 2018). Thus, we investigated how positive GWD can be established by purposefully assigning learners as group leaders.

Another study focus was the communication mode. Due to rapid advancements in information technology and the COVID-19 pandemic, online environments have become primary channels for holding classes. Spencer and

Temple (2021) discovered that online classes offer benefits such as easier engagement, prompt feedback, and enhanced problem-solving skills. A recent meta-analysis revealed that hybrid English classes are nearly as effective as traditional face-to-face (FTF) classes in developing language skills (Dixon et al., 2021). However, the communication context of this study (i.e., synchronous online classes in which participants can engage in real-time conversation using video and audio) have several drawbacks. Technical and internet-related issues, difficulties in collaboration, diminished feelings of connectedness, and decreased motivation are among the main obstacles identified in recent research (Belt & Lowenthal, 2022; Kohnke & Moorhouse, 2022; Resnik & Dewaele, 2021). Additionally, studies indicate that learners may not be as fully engaged in synchronous online classes compared to FTF classes (Baralt et al., 2016).

Against this backdrop, learners were appointed as leaders in English class GW to examine how peer leadership affected the GW climate in the two modes of communication: FTF and online. GW is expected to be enhanced if there are students in leadership roles. Furthermore, we examine which specific elements of GWD are particularly prevalent in each mode, as well as whether leaders and non-leaders exhibit different behavior to influence GWD.

2 | LITERATURE REVIEW

2.1 GWD and leadership

Group dynamics is a longstanding research paradigm in studying and identifying traits of successful group learning. In educational settings, group dynamics pertain to "interrelations between individuals within groups and how these interrelations affect the formation, performance, and dissolution of these groups" (Murphey et al., 2012, p. 250). Despite their significant impact on language teaching success or failure (Dörnyei & Murphey, 2003), group dynamics have not received adequate attention in second language acquisition (SLA) research. While the importance of a positive classroom culture and group dynamics is acknowledged, research on their relationship remains limited (Gkonou et al., 2018).

Successful GW necessitates a psychologically safe environment for mutual learning and strong relationships. Group cohesion and cooperation among learners are vital for motivation (Dörnyei, 2001). A study with English learners in Taiwan showed that learning alongside motivated students positively impacted participants' motivation (Chang, 2010). Conversely, students with little interest and unresponsiveness lowered others' motivation. In a study conducted by Eddy-U (2015), the factors that motivate or demotivate English language learners in Macau to participate in group tasks were explored. The results of the study suggest that being paired with highly motivated partners may positively influence task engagement, while being paired with demotivated groupmates could lead even self-motivated students to adopt negative attitudes toward a task. Thus, for high motivation and active GW engagement, thoughtful student groupings for task completion are essential.

Poupore (2018) investigated the relationship between GWD and L2 learners' task engagement. Poupore developed a GWD measuring instrument (Poupore, 2016; Table 1) and analyzed two groups of Korean university English students given an interactive task. The study identified factors contributing to strong and weak GWD patterns, including positive and negative GWD behaviors, affect-related states, and critical interaction moments. Mina, a participant in both groups, demonstrated the substantial impact leader-like students can have on GWD and group performance. In the first group, Mina took a leadership role, providing direction, ideas, and displaying loud laughter, contributing to the high GWD score. In contrast, in the second group, Mina was "essentially inactive for most of the task" (Poupore, 2016, p. 17) due to frustration from her inability to effectively perform the task or contribute ideas, significantly impacting the low GWD score. This emphasizes the considerable influence leader-like students can have on GWD and group members' performance.

Leadership in GW is crucial for studying group dynamics (Forsyth, 2018). Among numerous leadership types, "emergent leadership" has gained attention in general psychology and SLA. Kalish and Luria (2016, p. 1474) describe emergent leaders as individuals perceived as leaders without a formal role and capable of influencing the group.

TABLE 1 List of positive/negative GWD characteristics (based on Poupore, 2016, 2018).

Positive GWD		Negative GWD	
Characteristic	Weight	Characteristic	Weight
P1. Leadership direction	3	N1. Negative remarks	3
P2. Positive remarks	3	N2. Decision without checking for agreement	3
P3. Jokes	3	N3. Sarcastic or cynical humor	3
P4. Providing help	3	N4. Saying something but being ignored	3
P5. Contributing ideas	2	N5. Incoherent responses	2
P6. Asking for others' ideas	2	N6. Irrelevant responses	2
P7. Seeking clarification	1	N7. Rushing the task	2
P8. Asking for help	1	N8. Foul language	2
		N9. Refusing to share/avoiding sharing ideas	2
		N10. Impersonal responses	1
		N11. Superior responses	1
		N12. Cutting a speaker off	1
		N13. Overlapping talk	0.3
		N14. Off-task talk	*
		N15. Group member exclusion	**

*Off-task talk of 30-34 seconds = 3; 35-39 seconds = 3.5; etc.

**Group member exclusion of 1–20 seconds = 3; 21–40 seconds = 6; etc.

Groups with informally emerging leaders and coordinated work processes achieve better results (Forsyth, 2018; Leeming, 2019).

Several SLA studies investigated leader emergence in L2 classrooms and its impact on group interaction and language learning opportunities. Yashima et al. (2016) studied factors determining learner participation levels in group discussions in English classes with 21 Japanese university students. Analysis was based on turn-taking, talk time, and silent time. While the authors did not specify leaders, some students spontaneously acted as informal leaders. Groups with such leaders had active participation and cooperation, while those lacking leaders faced discussion problems and extended periods of silence.

Leeming (2019) examined emergent leadership's impact on group conversation engagement. Specifically, 78 Japanese university students were divided into groups of 3–4 and participated in class activities over a semester (14 weeks). Group conversation tests were administered mid-semester and at the end to investigate the influence of learner proficiency, personality (extroversion), and leadership on student participation. The presence or absence of a leader more strongly predicted engagement than proficiency and personality. Additionally, student interaction during conversation tests was qualitatively analyzed in terms of language-related episodes (LREs). The study found that LREs were negatively related to strong leadership, possibly because LREs disrupted conversation flow, causing strong leaders to avoid them and other students to lack confidence in challenging leaders' language use. The findings emphasize the importance of leaders for group performance.

In a follow-up study, Leeming (2021) examined teachers' ability to recognize emergent leadership. It is widely believed that many teachers can identify unconscious leaders early in the classroom, allowing them to establish rapport and understand motivations (Dörnyei & Murphey, 2003). Despite this belief, empirical evidence is lacking; Leeming's (2021) study aimed to address this gap. Like the previous study, students were placed in fixed groups and asked to identify the leader. Students' leader perceptions were compared with the teacher's views. While many groups

had leaders, the teacher identified leaders in only half the cases, contrasting with the assumption that teachers can readily recognize group leaders (Brown & Lee, 2015).

Emergent leaders significantly impact GW success or failure. However, due to limited classroom language task time, emergent leaders may not always arise or be identified by teachers (Leeming, 2021), hindering appropriate intervention or feedback (Dörnyei & Murphey, 2003). Thus, examining the effects of deliberately appointing a leader in GW is crucial.

Two common leader selection methods are teacher appointment and peer selection. In this study, we chose teacher appointment, as previous research identified qualities necessary for effective leadership, allowing selection of a suitable student. However, designating a leader can compromise learner autonomy, potentially negatively affecting GW (Dörnyei, 2001; Zhou, 2021). To address this, only the designated leader was informed of their role, while other members remained unaware of a leader's presence or identity.

2.2 | Mode of communication and GW

Digital communication tools and online networks have revolutionized learning environments in various ways (Haleem et al., 2022). In L2 classrooms, earlier options were limited to asynchronous and synchronous written communication, such as chat functions. However, technology advances have made synchronous audio and video communication, using platforms like Skype, Zoom, and Microsoft Teams, more accessible and logistically feasible. Synchronous communication enables real-time interaction, immediate feedback, and engaging learning experiences. Video inclusion provides crucial visual cues, such as facial expressions and body language, enhancing comprehension and helping learners interpret conversational nuances. Consequently, synchronous audio and video communication has made language practice more accessible, interactive, and effective in L2 classrooms. In light of these developments, SLA researchers now focus on determining whether traditional FTF instruction or online (asynchronous and/or synchronous) instruction better supports language acquisition.

Early research suggested online text-chat communication offers benefits over FTF communication, including reduced anxiety (Chun, 1998) and improved language production (Warschauer, 1995). For instance, Warschauer (1995) compared participation in discussion activities between online and FTF modes for 16 university English learners. Results showed online chat environments relieved learners' pressure to speak FTF and reduced task participation anxiety. Côté and Gaffney (2021) reached similar conclusions, finding lower anxiety and higher output quantity for beginner French learners in online sessions compared to FTF.

However, online classes, whether synchronous or asynchronous, can hinder active participation and cooperation due to the absence of a shared physical learning environment. This difference can affect students' interaction patterns and task engagement. For example, Tan et al. (2010) compared interaction patterns among beginner Chinese-language class participants completing seven tasks through FTF and online modes. They found communication mode influenced interaction patterns more than task type, with "cooperative patterns" (limited engagement with others' contributions) only occurring in the online mode. Storch (2009) describes this pattern as a clear division of labor, potentially leading to disconnectedness and isolation, negatively affecting learners' commitment, motivation, and enthusiasm.

Social presence, the sense of connectedness and engagement with others (Short et al., 1976), is vital for enhancing group learning and dynamics by fostering social interaction and emotional involvement. However, in computersupported collaborative learning environments, social presence can be hindered by assumptions that participants will interact socially just because the environment permits it and by neglecting psychological aspects of desired social interaction (Kreijns et al., 2011). Molinillo et al. (2018) found that social presence, along with teacher-student and student-student interactions, contributes to active learning. In L2 learning, studies indicate positive group dynamics can boost resilience, motivation, and language production (Poupore, 2016). Therefore, cultivating a supportive online learning environment is crucial for enriching language learning experiences and enhancing learning outcomes. Baralt et al. (2016) investigated the impact of communication mode on student engagement in language learning tasks, comparing FTF environments and online synchronous computer-mediated communication. FTF learners demonstrated higher cognitive (e.g., increased attention to language), affective (e.g., more positive feelings), and social (e.g., better support during interactions) engagement, with the latter attributed to stronger social presence. FTF settings enable immediate and direct interaction, fostering connectedness, and collaborative learning. Conversely, online learners experienced lower social presence due to limitations such as fewer non-verbal cues, communication delays, and lack of physical proximity. These findings highlight the importance of social presence in language learning and the need for educators to consider communication mode when designing learning experiences.

The lack of social presence in online learning presents challenges to learner participation and engagement in GW. Insufficient participation can lead to imbalances in contribution and commitment, causing frustration. To address this issue, we examine the effectiveness of the peer leadership method in promoting engagement and participation. The impact of a leader on the GW climate in online settings is not well understood, but Selcuk et al. (2021) offer insight through a study on collaborative writing online. The study involved high school English learners in Turkey who selected a group leader before beginning the task. Based on self-reported accounts, leaders played a facilitative and supportive role in GW activities, eliciting positive and engaged responses from group members.

While Selcuk et al. (2021) highlighted the potential of peer leadership in fostering a positive GW climate in online learning, it remains unclear whether leader influence and roles depend on communication mode, as the study did not compare online peer leadership with FTF settings. Additionally, the limited participant number and the use of social media for group activities outside class may limit the generalizability of the results to traditional English classes.

To investigate the impact of a leader-role student's presence or absence in FTF versus online conditions on group work dynamics (GWD), we propose the following research question: Does the presence of a leader, mode of communication, and interaction between the two impact GWD during L2 group work activities?

3 | METHOD

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3.1 | Participants

The participants were 144 university students (82 women, 62 men) learning English as a foreign language. All were Japanese, aged 18–20, and enrolled in a mandatory low-intermediate language course. They had studied English as a compulsory subject for at least 6 years before university. Based on placement tests, their English proficiency ranged from A2 to B1 according to the Common European Framework of Reference. Participants rated their English proficiency on a 1 (lowest) to 5 (highest) scale, averaging 2.82 (SD = 0.83). When asked their primary reason for studying English, 38 students (26.39%) chose intrinsic motivation, 70 (48.61%) chose an autonomous type of extrinsic motivation, 33 (22.92%) chose a controlled type of extrinsic motivation, and 3 students (0.02%) did not pick a specific reason. Due to the COVID-19 pandemic, all university courses had been conducted online in the previous semester, so all participants had had recent experience using online synchronous communication tools.

3.2 Grouping

The study assigned participants to four conditions: groups of three with or without a leader-role student in FTF (13 and 11 groups, respectively), and groups of three with or without a leader-role student in online, synchronous, videoand audio-enhanced conditions (13 and 11 groups, respectively). The leader selection process involved several criteria: scoring at least 4 out of 5 in English proficiency, having intrinsic or autonomous extrinsic motivation for studying English, and exhibiting leadership behavior observed by the teacher. Proficiency is crucial in interaction research (Sato & Ballinger, 2016) and can predict leadership in group work (Leeming, 2021). This study considered learner's self-assessment of proficiency, motivation, and teacher's assessment of leadership aptitude.

Before GW, leader students received written invitations to guide group discussions and motivate members (Appendix 1), without being held responsible for unsuccessful activities. In FTF classes, grouping was done by having students sitting together form groups, with some moving seats to include assigned leaders. Although groups comprising friends could have impacted GWD, this method was chosen to avoid the negative influence of arbitrary grouping by the teacher on the participants' affective aspects and commitment to GW. In online classes, Zoom "Breakout Rooms" facilitated random grouping, with the teacher ensuring each group had a leader. To avoid affecting commitment, group members were not told whether a leader was assigned or who held that role.

3.3 | Task

Students received a set of four pictures (adopted from Heaton, 1975, p. 30; Appendix 2) and were asked to interpret the story in the pictures, describing it in written English. After brief instructions (e.g., not to use a dictionary or other reference materials), they had 20 min to complete the picture description, work as a group, and jointly produce the text. In FTF classes, the teacher monitored groups without providing linguistic help. In online classes, the teacher stayed in the main Zoom room, available for questions (though no group asked for help).

3.4 Data collection and processing

The study recorded all group interactions using participants' smartphones with voice recorders in the FTF class and Zoom's recording function in the online class. Informed consent was obtained, and participants were informed they could withdraw anytime without affecting their academic records.

The collected audio and video data were transcribed after all groups completed the activity. Although the activity was meant to last 20 min, some groups finished early, while others exceeded the time. The average on-task engagement time for the 48 groups was 18.25 min, with each group engaging for at least 15 min. To account for time differences, data from the first 15 min of the activity were analyzed. The transcribed data resulted in an oral interaction corpus comprising a total of 33,754 words (FTF with a leader [n = 13]: M = 834.69, SD = 499.32; FTF without a leader [n = 11]: M = 751.00, SD = 472.23; online with a leader [n = 13]: M = 709.23, SD = 333.98; online without a leader [n = 11]: M = 492.91, SD = 188.02; F[3, 44] = 1.56, p = 0.21, $\eta^2 = 0.10$).

To evaluate the GW climate within each group, we employed Poupore's (2016, 2018) GWD measurement instrument (Table 1), which identifies and categorizes aspects of GWD, including participation, cooperation, and communication. A scoring system based on these characteristics gauges a group's social climate. The instrument lists characteristics and behaviors with positive or negative impacts on GWD, each assigned a numerical weight derived from critical evaluations of relevant theories and concepts. Poupore (2016) used this instrument to survey Korean university students learning English and found a significant relationship between GWD and task motivation, as well as between GWD and language production. Sato et al. (2022) investigated factors influencing learners' L2 use and attention to form in task-based interactions using interaction mindset questionnaires, collaboration perception measures, and Poupore's (2016) GWD instrument. The results showed both interaction mindset and group dynamics formed during tasks crucial for L2 learning, but Poupore's (2016) GWD instrument is also useful in measuring such group dynamics in classrooms. Although this tool aims to comprehensively capture a group's social dynamics, Poupore (2018) recognizes its "exploratory" nature and "conditional" aspects (p. 357). Factors like positive and negative GW behaviors and affect-related states interact to produce strong or weak GWD outcome patterns. Consequently, we sought to critically

	Leader	Mode	М	SD	Min	Max
Positive GWD	Yes	FTF	146.54	33.53	100.00	205.00
		Online	115.46	49.15	58.00	252.00
	No	FTF	121.64	59.31	20.00	214.00
		Online	79.27	21.49	34.00	118.00
Negative GWD	Yes	FTF	10.72	6.78	2.60	29.60
		Online	6.42	8.37	0.00	23.00
	No	FTF	13.87	10.12	0.00	35.00
		Online	6.34	8.58	0.00	22.90

TABLE 2 Descriptive statistics for positive/negative total GWD scores.

examine the instrument's consistency and accuracy, revising it (if necessary) to accommodate specific task, learner, and cultural characteristics.

It is worth noting that Poupore's GWD instrument includes non-verbal behaviors, such as eye contact, touching, and gestures, in addition to verbal behaviors. However, in this study, half the groups completed the task online, making recording and analyzing non-verbal behaviors challenging. Thus, we focused on verbal behavior, examinable through audio recording, and excluded non-verbal behavior.

For GWD score calculation, one group was randomly selected from both FTF and online conditions. Two researchers collaborated to determine GWD characteristic identification and score calculation. After reaching a shared understanding, they independently scored the remaining groups. The coding was compared, and inter-rater reliability was calculated using Cohen's kappa ($\kappa = 0.83$). Differences in scoring were discussed until agreement was reached.

3.5 | Data analysis

Our analysis involved two steps. First, we examined how total GWD scores, including positive and negative aspects, varied based on the presence of a leader, mode of communication, and their interaction. We conducted a two-way between-groups multivariate analysis of variance (MANOVA) with the presence of a leader (present/absent) and mode of communication (FTF/online) as independent variables, and positive and negative total GWD scores as dependent variables. As Pallant (2020) explains, a two-way MANOVA tests the main effects of each independent variable and explores interaction effects. In the second step, we focused on individual GWD characteristics and examined how individual GWD scores (positive and negative) varied based on the presence of a leader, mode of communication, and their interaction. By examining score details for each condition, we aimed to determine which GWD characteristics and behaviors had the strongest impact on positive/negative GWD.

4 | RESULTS

4.1 | Total GWD scores in each condition

Table 2 provides descriptive statistics for positive/negative total GWD scores across all four conditions. Before conducting the analysis, we checked the statistical assumptions required for the MANOVA. Outliers were assessed using a boxplot, multivariate normality through the Kolmogorov–Smirnov and Shapiro–Wilk tests, and homogeneity of variance–covariance matrices via Box's M test. While most assumptions were met, normal distribution was not

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	Wilks' Iambda	F-value	p-value	η ²
Leader	0.86	3.51	0.04	0.02
Mode	0.78	5.94	0.01	0.05
Interaction	0.99	0.27	0.77	0.00

TABLE 3 MANOVA summary for comparing GWD scores with respect to leader and mode type.

Note. Effect size of η^2 (eta squared) = 0.01 represents a small effect, $\eta^2 = 0.06$ medium effect, and $\eta^2 = 0.14$ large effect (Plonsky & Oswald, 2014).

satisfied for the no leader condition for positive GWD and the no leader and online conditions for negative GWD (p < 0.05). Despite this violation of normality, we proceeded with the analysis, as MANOVA has been shown to be robust in the face of such deviations in raw data (Blanca et al., 2017).

The results of the two-way MANOVA indicated that the interaction effect between leader and communication mode on the total GWD scores was not statistically significant (Table 3) (Wilks' lambda = 0.99, F = 0.27, p = 0.77, $\eta^2 = 0.00$). Since there was no interaction, we proceeded to examine the main effects. The results revealed significant main effects between leader and the two dependent variables (Wilks' lambda = 0.86, F = 3.51, p = 0.04, $\eta^2 = 0.02$, small effect size), as well as between mode of communication and the two dependent variables (Wilks' lambda = 0.78, F = 5.94, p = 0.01, $\eta^2 = 0.05$, small effect size). However, it is important to interpret these main effects conservatively as the effect sizes were small, and the assumption of multivariate normality was violated.

Univariate ANOVAs were conducted to understand how the effect of leader presence and mode of communication differed for positive and negative total GWD scores. The presence of a leader had a significant main effect on positive total GWD score (F = 5.95, p = 0.02, $\eta^2 = 0.10$). Specifically, the mean positive total GWD score was 30.55 points higher (95% CI [5.30, 55.79]) with a leader than without (p < 0.05). For mode of communication, significant main effects were observed for both positive and negative total GWD scores (F = 8.59, p = 0.01, $\eta^2 = 0.14$ and F = 5.82, p = 0.02, $\eta^2 = 0.11$, respectively). FTF communication had a mean positive total GWD score 36.72 points higher (95% CI [11.48, 61.97]) than online (p < 0.01) and a mean negative total GWD score 5.92 points higher (95% CI [0.98, 10.86]) than online (p < 0.05).

Overall, positive GWD scores were highest in the FTF GW with a leader present (M = 146.54) and lowest in the online GW without a leader (M = 79.27), with about a two-fold difference. This suggests that the presence of a leader and FTF communication can significantly enhance positive GWD. Conversely, negative GWD scores showed minor variations based on the mode of communication; however, these scores were generally low, constituting about one tenth of the positive GWD scores.

4.2 Individual GWD characteristics in each condition

To gain a better understanding of how leadership and communication mode impact GWD, we now turn our attention to the individual GWD characteristics in each condition. Figures 1 and 2 are visual representations of the mean scores of positive and negative individual GWD characteristics for each condition, respectively.

A noticeable difference is observed in total scores for positive characteristics (see Table 2). Examining individual characteristics, differences between modes were especially striking for P5 (contributing ideas), with statements like "I think a father noticed the mosquito coming in," "Maybe this sentence should be added to picture three," and "It seems that he is ashamed; he was ashamed." Differences were also observed for P7 (asking for clarification), with examples such as "They, the family is eating lunch?" "What did he hit?" and "The old man was angry so ... young man felt sorry and ashamed, OK?"). For both characteristics, FTF interactions outperformed online interactions. These results show that



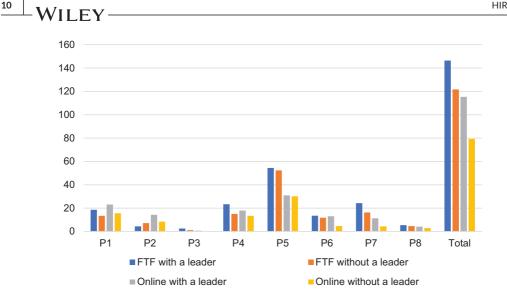


FIGURE 1 GWD scores for positive characteristics in each of the four conditions. GWD, group work dynamics; P1, leadership direction; P2, positive remarks; P3, jokes; P4, providing help; P5, contributing ideas; P6, asking for others' ideas; P7, asking for clarification; P8, asking for help. [Color figure can be viewed at wileyonlinelibrary.com]

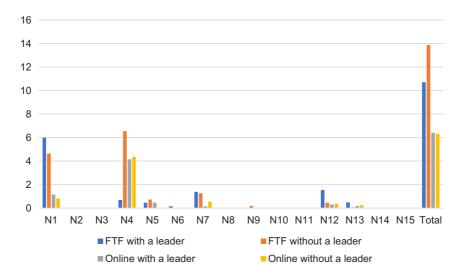


FIGURE 2 GWD scores for negative characteristics in each of the four conditions. GWD, group work dynamics; N1, negative remarks; N2, decision without checking for agreement; N3, sarcastic or cynical humor; N4, saying something but being ignored; N5, incoherent responses; N6, irrelevant responses; N7, rushing the task; N8, foul language; N9, refusing to share/avoiding sharing ideas/information; N10, impersonal responses; N11, superior responses; N12, cutting a speaker off; N13, overlapping talk; N14, off-task talk; N15, group member exclusion. [Color figure can be viewed at wileyonlinelibrary.com]

students in FTF mode were more likely to express opinions and seek clarification during GW compared to students in online mode.

Despite our initial expectations, we found that in the FTF mode, total scores for negative characteristics were actually higher compared to the online mode. This finding is consistent with Resnik and Dewaele's (2021) research, which showed that students rated their in-person classes as significantly more enjoyable yet also more anxiety provoking

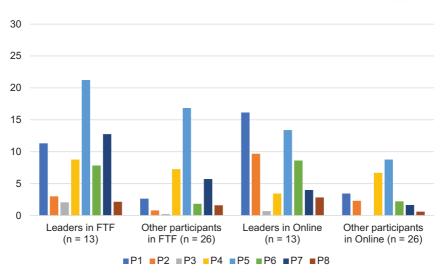


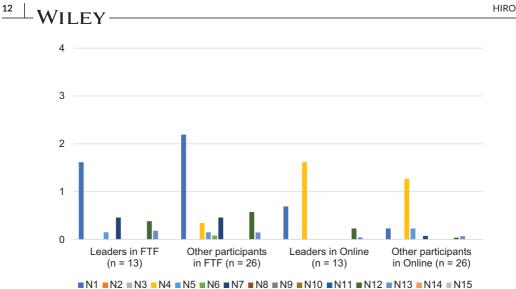
FIGURE 3 Positive GWD scores of leaders and other participants in each condition. GWD, group work dynamics; P1, leadership direction; P2, positive remarks; P3, jokes; P4, providing help; P5, contributing ideas; P6, asking for others' ideas; P7, asking for clarification; P8, asking for help. [Color figure can be viewed at wileyonlinelibrary.com]

than emergency remotely taught classes. These results suggest that learners' emotions may be more intensely experienced in FTF classes compared to online classes. Upon closer examination, N1 (negative remarks) such as "Oh, it's difficult," "By? With? I don't know," and "Confusing, confusing!" were more prevalent in FTF communication, regardless of leader presence. However, these comments were expressions of insecurity, defensiveness, or low self-worth (Poupore, 2016) and did not significantly impact GW. Conversely, N4 (saying something but being ignored) was almost non-existent in FTF mode with a leader but appeared in the other three conditions. Notably, the GWD score for negative characteristics was generally low with significant variability between groups (see Table 2).

We now compare GWD characteristics between leaders and non-leaders. In both FTF and online conditions, a student was assigned as the leader. Figure 3 illustrates the positive GWD scores of leader students (n = 13) versus other students (n = 26) in each condition. Focusing on the P1 category, representing leadership direction, results show that the nominated leader displayed more leadership than other participants. Examples include statements like "So, let's start from the first picture," "Hey, everyone, say something!" and "Let's put together these sentences." Furthermore, the P1 scores of online leaders (M = 16.15) were higher than those of FTF leaders (M = 11.31). This suggests that online leaders, to offset the reduced social presence and affordances (Fayram, 2017; Kreijns et al., 2011), might have adopted a more explicit communication style involving leadership direction relative to FTF leaders.

In both FTF and online conditions, the GWD scores of students in the leader role were higher than those of other students. This indicates that it is possible to deliberately assign the leader role in GW activities, and doing so may positively impact GWD.

Figure 4 illustrates the negative GWD scores of leader students (n = 13) and other students (n = 26) in each condition. The results show that negative GWD characteristics were infrequent in both modes of communication. For instance, N1 (negative remarks) and N4 (being ignored despite contributing) had a numerical weight of 3 (see also Table 1). A score of ≥ 3 was given if the negative behavior was observed at least once during the 15-min task. However, the highest N1 score (M = 2.19) was given to other participants in FTF, and no scores exceeded 3. Overall, negative GWD scores were low in all conditions, indicating negative behaviors were uncommon, irrespective of leader-role student presence or communication mode.



FIGURF 4 Negative GWD scores of leaders and other participants in each condition. GWD, group work dynamics; N1, negative remarks; N2, decision without checking for agreement; N3, sarcastic or cynical humor; N4, saying something but being ignored; N5, incoherent responses; N6, irrelevant responses; N7, rushing the task; N8, foul language; N9, refusing to share/avoiding sharing ideas/information; N10, impersonal responses; N11, superior responses; N12, cutting a speaker off; N13, overlapping talk; N14, off-task talk; N15, group member exclusion. [Color figure can be viewed at wileyonlinelibrary.com]

5 DISCUSSION

The purpose of this study was to investigate how leader presence, communication mode, and their interaction affect L2 learners' GWD. While leadership is a significant factor in GWD, little research has explored assigning leadership roles in GW activities. Online classes offer advantages, but reduced social presence-a sense of connection and awareness of others in the group—poses challenges for active engagement and collaboration compared to FTF classes. Our study showed that designing GW activities with assigned leadership roles promotes GWD, achievable in both FTF and online settings. The findings are further examined, considering the communication mode and leadership importance.

5.1 | Mode of communication

The study findings indicate that positive total GWD scores were higher in FTF conditions than online. GW was more active in FTF conditions, both positively and negatively. The difference between FTF and online was especially noticeable in "contributing ideas" (P5), with FTF scores (M = 53.41) about 1.7 times higher than online (M = 30.55) (see Figure 1). Scores for groups with and without a leader were similar in both conditions, suggesting communication mode strongly impacted group members' willingness to express opinions. Previous studies (Cortese & Seo, 2012) show individuals experience more social presence in FTF discussions than online. High social presence leads to increased talk and opinion expression in GW and discussions. Learners are more cognitively, affectively, and socially engaged in FTF GW compared to online (Baralt et al., 2016). These studies and our current findings suggest communication mode differences, like FTF and online, significantly influence GW interaction. Teachers should intentionally create social presence and affordances in online environments for effective communication. Strategies like using icebreakers, encouraging participation, and providing regular feedback can enhance connection and engagement in online learning (Martin & Bolliger, 2018; Selcuk et al., 2021).

Overall, negative GWD scores were relatively low. However, a notable difference existed between FTF and online scores for N1 (negative remarks), with FTF scores higher (M = 5.32) than online scores (M = 1.97). Previous studies, including Poupore (2016, 2018), suggest negative remarks in group interactions generally harm group morale and cohesion. We categorized these features as negative behavior and scored them accordingly. However, negative remarks may not always result in negative GWD. Expressions like "Oh, it's difficult" and "Confusing, confusing!" can have positive relational effects (i.e., positive GWD characteristics) for overcoming challenges together, depending on tone and facial expressions. In other words, some GWD characteristics might not be inherently positive or negative; they may exhibit either depending on context. Thus, it is crucial to consider the broader communicative context when interpreting GWD scores to better understand their impact on group dynamics.

Conversely, in the online setting, students experienced less pressure to participate, potentially reducing anxiety for less confident individuals (Chun, 1998; Côté & Gaffney, 2021). However, suboptimal communication flow in online classes might relate to negative GWD behaviors, like N4 (saying something but being ignored). These situations could result from misunderstandings and miscommunication among learners. To encourage active and effective GW online while addressing learners' anxiety, peer student leadership can play a significant role.

5.2 | Role of leadership

Leadership is crucial in GWD (Dörnyei & Murphey, 2003; Forsyth, 2018); however, the feasibility of intentionally assigning leadership roles in online settings is unclear. This study shows that designating a learner as a leader can enhance GWD in online contexts. Positive total GWD scores were significantly higher online with a leader (M = 115.46) than without (M = 79.27). Score differences with and without a leader were 24.9 for FTF communication and 36.19 for online (Table 2). Additionally, Leeming (2019) found strong leaders promote mutuality, fostering conversational flow and engagement, while weak leadership leads to reduced interaction and task dedication. Given these findings, teachers should recognize leadership as a critical factor influencing student participation in GW, especially in online settings.

Leaders played a crucial role in promoting smooth GWD by facilitating tasks and assigning roles to group members (e.g., "Let's discuss each picture and sentence. We'll take turns speaking." and "Can you think of a spell for the bug?"). They also supported by praising and motivating group members (e.g., "That's a great idea. You are genius!" and "Yes, simple is best!"). While Selcuk et al.'s (2021) study was a qualitative analysis with limited participants (six students), this study involved a larger sample of 144 students across 48 groups, analyzing total and individual GWD scores both quantitatively and qualitatively (visual). Findings supported Selcuk et al. (2021), indicating leaders significantly impacted both FTF and online settings.

This study's findings have important pedagogical implications for leadership in Asian L2 classrooms, especially in Japanese English classes where silence is prevalent. For instance, King (2013) found that Japanese students rarely initiate communication in English or Japanese, suggesting a potential lack of ability or confidence in speaking independently despite responding when addressed. Our results indicate that when students assume leadership roles, they facilitate, breaking silence and promoting GW. This highlights the importance of conducting GW activities with designated leaders or incorporating basic leadership training into the curriculum when few students naturally assume leadership roles.

Furthermore, this study emphasizes the significance of positive GWD. Building on Poupore's (2016, 2018) research, we examined eight positive characteristics, with some observed more frequently than others. Certain GWD-promoting behaviors, like "contributing ideas" (P5), were accessible to learners, as in Poupore (2016), but others were not. In our study, assigned leaders received general instructions, such as encouraging and motivating group members. These instructions could be more explicit, or sharing the GWD list with the class and encouraging students to incorporate positive behaviors into GW might be beneficial. By raising awareness of positive GWD characteristics among learners and teachers, we can create fruitful GW opportunities in the L2 classroom.

6 | CONCLUSION

Like any study, there are limitations to address. First, task variables, such as task types (dictogloss, jigsaw, text editing), complexity (abstract vs. concrete topics), mode of delivery (oral vs. written), and communication mode (FTF vs. online) have been explored in prior research. We focused on communication mode. Nevertheless, to broaden our understanding, it is essential to conduct similar research under various conditions and with different tasks. Second, examining the impact of different grouping strategies on GWD, based on English proficiency and motivation, would be beneficial for task engagement and group performance. Third, longitudinal studies are crucial to understand the dynamics of GW and factors promoting collaboration. Repeated GW experiences could reveal positive changes in GWD and circumstances for more effective collaboration, providing a comprehensive understanding of GWD's complex nature. Lastly, it is vital to continue validating the GWD instrument (Poupore, 2016, 2018). Some characteristics, like "Negative remarks" and "Jokes," may exhibit both positive and negative GWD features. The rationale behind weighting values assigned to each characteristic is not always clear. The role and impact of each GWD characteristic may vary depending on factors such as age, motivation, proficiency level, or cultural background. Future research should explore these aspects, enabling a more concrete identification of factors influencing the social climate of GW and their impact.

As a result of the COVID-19 pandemic, online language education has become increasingly widespread. Although many classes have returned to FTF instruction, teachers and learners may now recognize the advantages and benefits of online learning and feel more comfortable using it. However, implementing successful GW in an online environment can be challenging, despite its effectiveness in promoting language acquisition in FTF classes. In this regard, the current study demonstrated that the peer leadership method is highly efficient in facilitating GWD and is relatively simple to execute. These findings can assist teachers who aim to enhance students' engagement and promote L2 learning in online GW settings. We hope that the findings of this study will be useful for teachers seeking to promote effective L2 learning through online GW activities.

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CONFLICT OF INTEREST STATEMENT

The author declares no conflicts of interest.

DATA AVAILABILITY STATEMENT

The datasets generated and/or analyzed during the current study are available upon reasonable request to the corresponding author.

ORCID

Tomohito Hiromori D https://orcid.org/0000-0001-9102-7708

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APPENDIX 1

Instructions and guidelines given to group leaders:

If you received this paper, you are the group leader.

In this class, we will conduct a group writing activity. We would like you to be the group leader and motivate the members of your group in the writing activity. Please play an active role in leading the group discussion and motivating group members. Consider using the following strategies to increase group motivation:

- Speak first when starting a task (e.g., "Let's get started" or "Let's start!").
- · Make a positive statement.

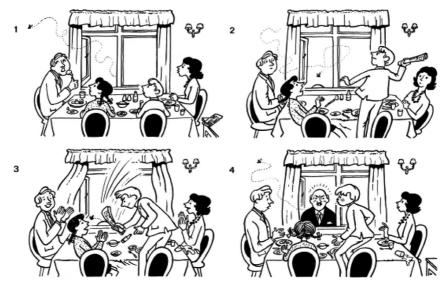
- Actively support members when they seem to be having trouble.
- Proactively come up with ideas that will help the task progress.
- Proactively ask group members for ideas that will advance the task.
- Ask group members to explain things more clearly.
- Ask group members for help when you are in trouble.
- Tell jokes to lighten the mood.

If there are other actions you can think of that are not listed above, please feel free to improvise. If things do not go well, we will not hold you responsible. We simply ask that you do your best.

*Please do not tell anyone that you are the leader.

APPENDIX 2

Set of four pictures used in the study (adopted from Heaton, 1975). Participants were asked to interpret and describe in written English what the story depicted.



AUTHOR BIOGRAPHY

Tomohito Hiromori is a professor at the School of Global Japanese Studies, Meiji University, Japan. His research interests cover various aspects of individual learner differences (e.g., motivation, strategies, and styles) and second language acquisition. His studies have been published in journals such as *International Review of Applied Linguistics in Language Teaching*, System, RELC Journal, Journal for the Psychology of Language Learning, and The Journal of Asia TEFL. Preparation of this article was facilitated by a research grant (Grant-in-Aid for Scientific Research (B) 20H01290) from the Japan Society for the Promotion of Science.

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