

***The Role of Process Observation Analysis in Understanding Group Dynamics:  
Input to Effective Participation, Communication, and Interaction***

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**Abstract**

The process observation analysis, supported by Industrial Engineering skills, highlighted the practical applications of essential elements in group dynamics, such as interaction, participation, and task fulfillment. Analytical thinking and keen attention to detail enabled a nuanced breakdown of group interactions, drawing connections between observed behaviors and desired outcomes. The study emphasized that incorporating process observation techniques in educational counseling enhances student support, effective decision-making, and smooth conflict resolution. Findings demonstrated that organizational and planning skills—essential in time management and agenda setting—play a vital role in maximizing productivity during engagements. The Industrial Engineer's systems thinking skills provided a holistic view, capturing how structured agendas and managed timelines contribute to successful organizational meetings. The use of a participation matrix showcased an effective data collection and analysis approach, enabling a structured evaluation of each participant's contribution to group discussions and overall productivity. Additionally, integrating both qualitative and quantitative techniques illustrated the value of statistical and quantitative analysis in action research. Results indicated that purposeful seating arrangements and attention to environmental details foster equal engagement and open conversation. Creating a collaborative and supportive atmosphere promoted active engagement, showing the impact of effective interpersonal and communication skills. Finally, Industrial Engineers apply problem-solving and decision-making skills in process observation analysis to assess interactions, communication, and other elements essential for cooperative decision-making. Documenting these observations effectively through technical writing ensures that findings and recommendations are communicated clearly to stakeholders, making process observation analysis a robust tool for organizational growth and productivity.

Keywords: Communication, Group Dynamics, Interaction, Participation Matrix, Process Observation Analysis

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## Introduction

This study employs Process Observation Analysis (POA) to examine group dynamics, specifically analyzing behaviors that impact how groups perform tasks and achieve their objectives. The primary goal is to conduct a thorough process observation to capture and evaluate the behaviors, interactions, and dynamics within a formal meeting. This investigation focuses on three key areas: individual participation, communication patterns, and the facilitator's role in managing discussions. The study of Winnie et al. (2020) indicates that by observing each member's behavior during discussions and identifying communication patterns that can either support or impede group success, this study aims to provide an in-depth analysis of complex social interactions and individual behaviors within their natural context. A significant aspect of this research is the integration of qualitative insights with observational data, which enables the study to uncover nuances that quantitative data alone might overlook. The elements such as tone, body language, and subtle patterns of engagement are critical to understanding the dynamics at play within the group.

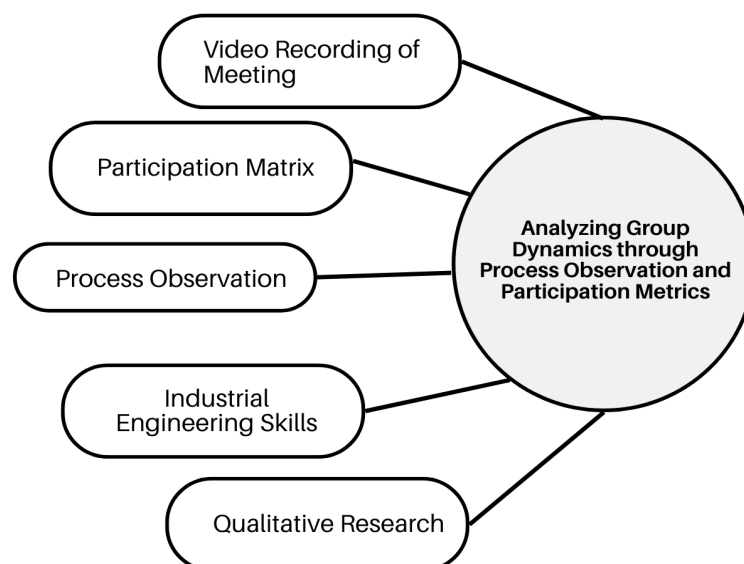


Figure 1: Conceptual Framework

Figure 1 illustrates the research's conceptual framework. A video recording of the meeting proceedings was used to enable precise post-meeting review and detailed analysis of interpersonal interactions. A key tool in the POA was the participation matrix, which documented the number of statements made by each member, categorizing participants as active (frequent and significant contributors) or passive (minimal contributors with shorter engagement). This classification provided critical insights into participation distribution within the group. The application of POA extends to virtual group interactions, identifying challenges unique to online settings. By addressing both interpersonal relationships and task-related behaviors, POA enables timely adjustments to improve task completion and group cohesion. Industrial Engineers utilize data collection, organizational planning, and systems thinking to enhance group dynamics, ensuring that relational and task-oriented behaviors align with group effectiveness.

By combining qualitative observation with structured participation metrics, the study highlights the strength of qualitative research in providing a rich, contextual understanding of group dynamics. Real-time observations, supported by video analysis, allow for a comprehensive evaluation of communication flow, role distribution, and facilitation effects. As work environments evolve, POA proves instrumental in fostering collaboration, cohesion, and productivity. This research contributes valuable insights into individual and collective behaviors, advancing the understanding of group interactions and the influence of facilitation on engagement and productivity in formal meetings.

## **Literature Review**

Effective learning environments rely on understanding group dynamics, communication, participation, and interaction, as these factors shape decision-making, conflict resolution, and learning outcomes. The Process Observation Analysis (POA), combined with participation matrices, offers a structured method to analyze group interactions and their impact on learning and productivity. By identifying participation patterns, educators can enhance collaboration, engagement, and overall learning experiences. Gençer (2019) describes group dynamics as the evolving interactions and behavioral influences within a group. The (POA) framework complements this perspective by analyzing real-time communication patterns that either facilitate or obstruct success. Participation matrices, widely used in government, business, and education, quantitatively assess each member's contribution, highlighting engagement levels and communication barriers. In educational contexts, they ensure balanced participation, fostering decision-making and conflict resolution (Joy et al., 2019). Dada et al. (2022) introduced the Involvement Matrix as a conceptual framework designed to facilitate the participation of youth with severe communication disabilities in health research. Their study identified four distinct roles—listeners, advisors, decision-makers, and partners—distributed across three research phases. This structured approach not only fostered meaningful engagement but also empowered participants by recognizing their unique contributions, thereby addressing conventional communication barriers. This study draws on foundational theories, including Tuckman's Stages of Group Development, Systems Theory, Social Exchange Theory (SET), and Hackman's Group Effectiveness Theory, illustrated in Figure 2. Choudhuri and McCarthy (2023) emphasized POA's value in task-oriented and psychoeducational groups, noting its role in identifying individual and external influences on group dynamics. Systems Theory reveals feedback loop disturbances hindering balanced interactions, allowing corrective actions (Mellenthin et al., 2021). The SET provides insights into participation and communication, analyzing interactions through efforts to maximize rewards and minimize costs. Sunyoto et al. (2021) explored group engagement using SET, highlighting how employee relationships evolve through exchanges shaped by organizational norms and trust. By integrating these theories with POA, this research underscores its effectiveness in uncovering participation patterns and improving group dynamics in diverse settings. Integrating POA with Hackman's Group Effectiveness Theory offers a framework for improving group dynamics. By focusing on outcomes, individual needs, and future collaboration, this approach enables organizations to evaluate interactions and enhance participation and communication. Recent studies emphasize the role of management strategies in boosting employee engagement. A people-centered approach that values active participation fosters greater team cohesion and effectiveness (Amit, 2024).

## Methodology

Methodology Process observation was conducted to evaluate behaviors, group dynamics, and interactions during a formal meeting, focusing on individual participation, communication patterns, and the facilitator's role. This method used qualitative research to provide an in-depth analysis of social interactions and individual behaviors in their natural context. Qualitative research prioritizes rigor and relevance when studying complex social phenomena, offering insights into the context and meaning behind behaviors that quantitative data may overlook, such as tone, body language, and subtle engagement patterns (Liu, 2024). Braun and Clarke (2019) argue that qualitative methods can capture complex interaction patterns often missed in quantitative research. Nowell et al. (2017) highlight the importance of trustworthiness in qualitative research, noting that real-time observation and systematic analysis provide a deeper understanding of group dynamics. To ensure accurate post-meeting analysis, the process observation was supplemented with a video recording of the proceedings.

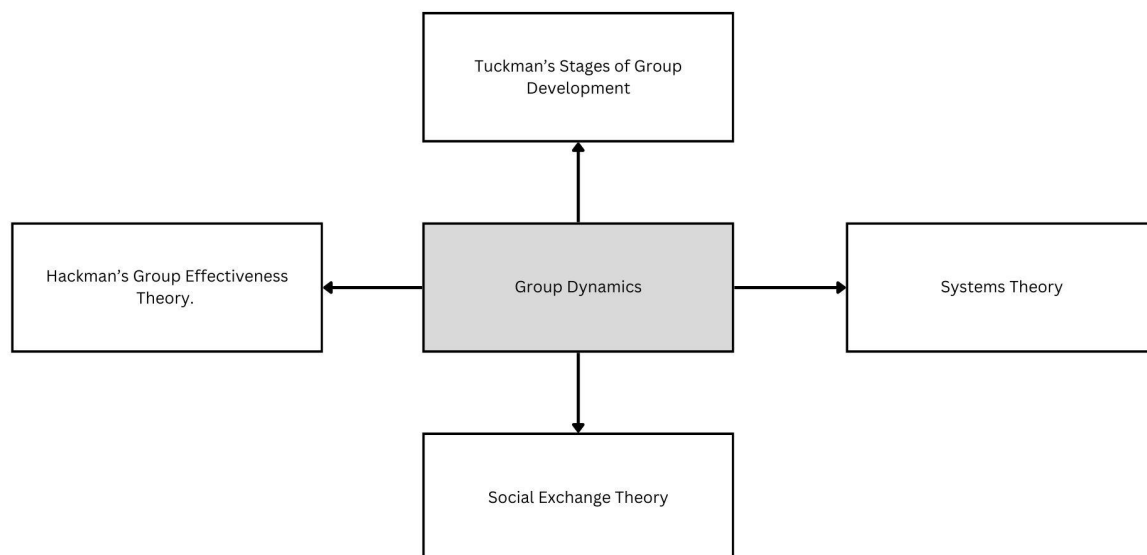


Figure 2: Theoretical Framework

A key tool in this observation was the participation matrix, which evaluates engagement by measuring the number of statements made and the time spent by each participant. Active participants are those with higher contributions, while passive participants make minimal contributions. Combining qualitative observation with structured participation metrics offers a nuanced understanding of group dynamics. Real-time observations, alongside video analysis, enabled a comprehensive evaluation of communication flow, role distribution, and facilitation impact. These insights provide a deeper understanding of individual and collective behaviors in group settings. A system was developed to monitor group dynamics in video-conferencing environments, assessing communication patterns and facilitation's influence within groups (Gordon et al., 2022). Building on this approach, a study introduced dynamic scene analysis to assess student participation in collaborative learning. By tracking group dynamics and participant interactions over extended periods, this methodology provided significant insights into engagement patterns, enhancing the understanding of collaborative learning processes (Shi et al., 2024).

## ***Participants***

About 20 participants, consisting of 65 percent male ( $n = 13$ ) and 35 percent women ( $n = 7$ ), attended the observed meeting. With an average age of 62.5 from the range of 46 to 75 years old, the group was made up of *Lupong Tagapamayapa* members, with two secretaries attending as well. *Lupong Tagapamayapa* (Pacification Committee), created pursuant to Republic Act 7160, commonly known as the “Local Government Code” of the Philippines, serves as an alternative dispute resolution in a barangay, settling conflicts without the costs normally occurring when filing cases in higher courts (Villamor & Dagohoy, 2021). The participants were informed of a meeting beforehand through a written letter issued by the Circle Head. The letter includes the agenda, the time, and the venue of the meeting.

The participants were positioned around the room, occupying the seats at the front of the walls (see Figure 3). Another row of seats facing the presidier was occupied as well. The researchers were also present at the meeting, collecting data and writing down observations. However, to ensure accurate information and that data will not be skewed, the participants were not informed of the presence of the researchers. Furthermore, the researchers did not sympathize with the group, as Gaille (2020) mentioned that the reliability of data is at risk when the normal group dynamics are interfered with. Consent from all the members of the participants was secured to publish the photo of the group discussion.



Figure 3: The Members of the Group Discussion Subjected to Process Observation Analysis

## ***Measures***

The assessment of group dynamics utilized measurements of effective participation, communication, and interaction to understand if a group is well-functioning or is experiencing challenges. Wu and Paluck (2022) stated that a boost in performance and an increase in effective cooperation might be caused by effective participation by sharing information and taking perspectives of one another. In a separate study, it was found that an enhanced level of commitment by the group members is caused by a successful establishment of identity through social communications. (Edward & Amalua, 2022). The total amount of time spent by each of the members engaging in the discussion and the number of times

conveying statements were used to fill the participation matrix. The data was then used to present time and frequency percentages, respectively, relative to the overall data collected from the group.

### ***Data Gathering Procedure***

Figure 4 shows the steps of how the researchers conducted the Process Observation Analysis. The researchers initially sought and received approval from the head and members of the Barangay Sta. Cruz’s Lupong Tagapamayapa to observe and record their meeting. Following the acquisition of consent, the researchers attended the meeting in person, during which they utilized mobile phones to capture both video and audio recordings. Due to confidentiality concerns, certain segments of the video were excluded from the final dataset. Subsequent to data collection, the researchers transcribed the recorded conversations. The transcription process was informed primarily by the video recordings, with the researchers carefully listening to the audio and reviewing the video to accurately identify each speaker and record the frequency of their contributions.

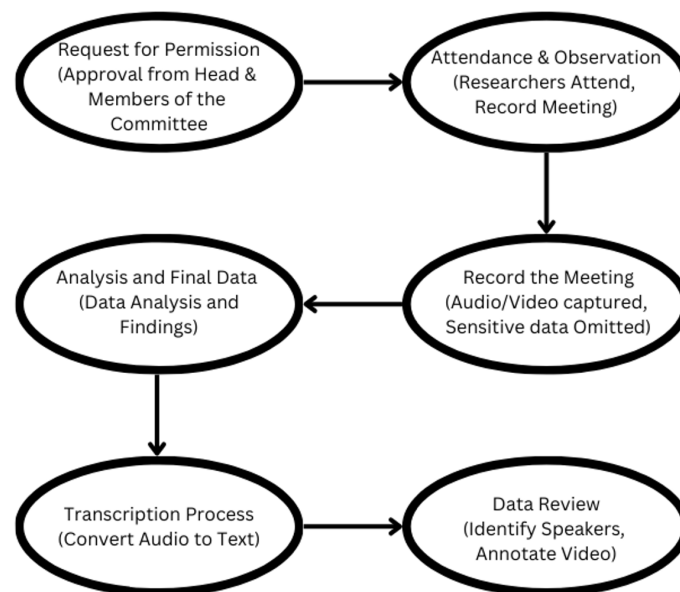


Figure 4: Steps of Conducting the Process Observation Analysis

In the digital era, transcription has significantly improved due to advancements in recording technologies. Researchers now rely on high-quality devices, such as video cameras and mobile phones, to capture meetings and interviews. These recordings are subsequently transcribed to facilitate in-depth analysis. For example, a study published in the European Journal of Cardiovascular Nursing examines how transcription transforms audio or video recordings into written formats, thereby enhancing the accessibility and utility of qualitative data analysis (Eftekhari, 2024). Similarly, McMullin (2021) highlights transcription as a common practice in qualitative research. However, they noted that transcription is not the sole method for data analysis, suggesting alternative approaches may also be employed.

### ***Data Analysis***

Table 1 shows that the group discussion lasted for 101.91 minutes, or 1 hour and 41.91 minutes, accounting for 80.75 percent of the recorded meeting time. For anonymity purposes and as part of confidentiality agreements agreed upon by the researchers and the group,

letters of the alphabet were used to replace the names of the members of the group. As the facilitator of the meeting, Participant A contributed to more than 75% of the communication exchange between the members. Meanwhile, both Participant C and Participant K were identified as the least active participants in the group. With this uneven distribution in mind, fostering collaborative decision-making and positive group dynamics was hindered. This was also what Strauß and Rummel (2021) found out — that reduced opportunities for productive interaction are present when there is unequal participation from the group members.

While Participant A was expected to speak more as the convener of the meeting, the collective communication contribution of the rest of the members was less than 25%, indicating that there was minimal to no involvement from most of the participants. With a big group, participants tend to be distracted, and silent ones are discouraged from contributing to decision-making and group discussions (Crisianita & Mandasari, 2022; Engineer et al., 2021).

Table 1: Participation Matrix

No.	Group Member	Particulars			Time Spent		No. of Statements
		<u>Gender</u>	<u>Age</u>	<u>Designation</u>	<u>Recorded Time (min)</u>	<u>%</u>	<u>f</u>
1	Participant A	M	68	Circle Head	77.05	75.61	284
2	Participant B	M	66	Circle Member	6.33	6.21	37
3	Participant C	M	63	Circle Member	0.00	0.00	0
4	Participant D	F	74	Circle Member	0.10	0.10	3
5	Participant E	M	75	Circle Member	0.53	0.52	17
6	Participant F	F	57	Circle Member	0.01	0.01	0
7	Participant G	M	54	Circle Member	1.86	1.83	39
8	Participant H	F	57	Circle Member	0.14	0.14	3
9	Participant I	F	46	Circle Member	2.60	2.55	30
10	Participant J	M	63	Circle Member	3.33	3.27	35
11	Participant K	M	74	Circle Member	0.00	0.00	0
12	Participant L	M	74	Circle Member	0.20	0.20	14
13	Participant M	M	64	Circle Member	0.27	0.27	9
14	Participant N	M	64	Circle Member	0.26	0.26	5
15	Participant O	F	64	Circle Member	3.81	3.74	44
16	Participant P	M	64	Circle Member	0.33	0.23	12
17	Participant Q	M	54	Circle Member	2.75	2.70	30
18	Participant R	F	56	Secretary	0.65	0.64	27
19	Participant S	M	61	Circle Member	1.63	1.60	29
20	Participant T	F	52	Secretary	0.06	0.06	3
<b>Total</b>					101.91	100	208

The group's interaction was found to be low, with 40 percent, or eight participants, speaking less than ten times. While some individuals showed their enthusiasm by asking questions and

seeking clarifications, how Participant A encouraged the group affected the group's motivation and interaction. Cole (2024) noted that a good leader has authority, has confidence in what they do, and encourages everyone to speak up and interact with each other.

## **Results and Discussion**

The result showed that only Participant A had the highest participation percentage in the discussion. In contrast, Participants C, K, and J had the lowest participation percentage in which they did not give any participation at all. Participant A initiated most of the topics as the facilitator, while the rest of the participants responded by either laughing, agreeing, or disagreeing to show their interest in the meeting.

The process observation revealed that the group discussion was largely dominated by a few participants, with a noticeable gender imbalance among active contributors. Although the group's average age was relatively high, this factor did not appear to affect participation levels significantly. The participation matrix highlighted a clear divide between active and passive members, suggesting that future meetings could benefit from strategies to encourage more balanced engagement and address potential gender biases. Examining factors such as personality traits, communication styles, or cultural differences might further illuminate the reasons behind these participation patterns and provide insights for enhancing group dynamics (Forsyth, 2015).

Participant A dominated the discussion, accounting for over 75% of communication exchanges, which may have limited equal participation and hindered a thorough exploration of topics. This observation suggests that the counselor should consider interventions to promote a more balanced discussion flow. Additionally, the meeting ran for 1 hour and 41 minutes, raising concerns about the efficiency and productivity of the session. According to Forsyth (2015), future sessions would benefit from strategies aimed at both promoting balanced participation and optimizing meeting length. To improve upcoming meetings, strategies such as round-robin discussions, equal speaking time, and encouraging quieter members to contribute could be implemented (Cook, 2024). Creating an inclusive environment that challenges gender stereotypes may also help reduce biases and foster a more equitable space for all participants. By addressing these areas, future meetings can be more productive, inclusive, and efficient (Bond, 2020). Figure 5 illustrates how Effective Participation, Communication, and Interaction can be achieved through POA. Ensuring active participation, open communication, and positive interactions within group dynamics brings numerous benefits. When every member contributes, it creates a rich environment for sharing diverse viewpoints, encouraging more innovative and balanced decision-making (Tasca, 2021).

The works of Mohanty and Mohanty (2018) discussed how effective communication fosters trust and transparency among group members, strengthening collaboration and minimizing misunderstandings. This also allows for the constructive and timely resolution of conflicts, which is essential for maintaining a positive, productive group environment. Tasca (2021) further highlights that positive interactions cultivate supportive relationships within the group, enhancing morale and cohesion. Consequently, this increases engagement and motivation, as members feel valued and respected. By focusing on effective participation, communication, and interaction, groups can leverage their collective intelligence, leading to improved problem-solving and more efficient goal attainment.



## Research Reflexivity

This analysis examines the role of Industrial Engineering skills in process observation analysis, focusing on group dynamics, student counseling, and decision-making facilitation. The authors leveraged their structured, analytical training to observe and interpret group interactions, linking specific behaviors to desired outcomes such as task fulfillment and effective participation. Their attention to detail and technical documentation skills ensured that findings were communicated clearly, emphasizing the value of technical writing in sharing results with stakeholders.

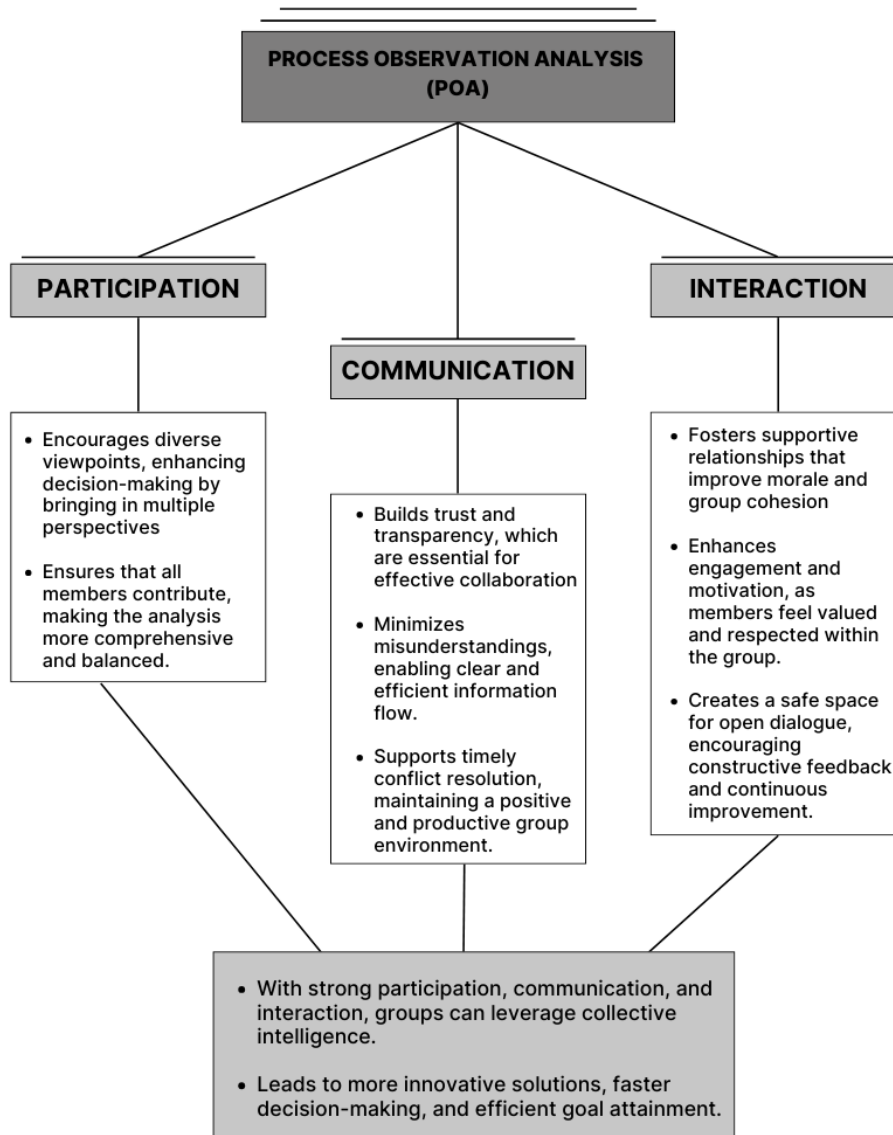


Figure 5: Effective Participation, Communication, and Interaction Through POA

The reflexivity exercise highlighted how the authors' engineering background shaped their observations, showcasing the potential of structured thinking, data analysis, and documentation to enhance teamwork, collaboration, and productivity in organizational settings. By combining quantitative methods with qualitative approaches like interviews and observations, the researchers gained a holistic understanding of group behavior and dynamics. Quantitative data revealed statistical patterns, while qualitative insights offered

nuanced perspectives on participants' experiences and challenges. Reflective practices, as applied by Rania et al. (2021), helped participants deepen their awareness of group dynamics and individual roles, emphasizing the value of qualitative insights in understanding subjective experiences. The researchers acknowledged potential biases by focusing on measurable outcomes, balancing objectivity with subjective interpretations. By maintaining transparency and recognizing their positionality, they ensured that findings reflected both their technical expertise and the diverse perspectives of participants. This reflexive approach enriched their understanding of group processes and enhanced the effectiveness of interventions in organizational settings.

## **Conclusion**

Familiarity with POA is crucial for facilitators, as it provides them with the tools to analyze group dynamics and interactions effectively. A solid understanding of POA enables facilitators to observe, interpret, and adapt to team behaviors in real-time, enhancing their ability to guide discussions and achieve desired outcomes. Recent research highlights POA's importance in fostering positive team dynamics, increasing motivation, and boosting morale among team members. Studies have explored the impact of team roles and emergent states, such as group potency and cohesion, which are vital for facilitators aiming to understand and improve group interactions as they unfold.

### ***Enhancing Team Dynamics Through Proficient Facilitation and POA Expertise***

Facilitators with POA expertise can effectively guide group behaviors, creating supportive environments that enhance motivation and collaboration (Woodley et al., 2019). This skill enables facilitators to identify areas for improvement while fostering growth and teamwork. Effective collaboration relies on cooperation, communication, and coordination, which together drive team synergy and performance gains that surpass individual contributions. These gains create a feedback loop that reinforces collaborative processes and supports ongoing team development (Bisbey & Salas, 2019). By providing constructive feedback based on careful observation, facilitators help team members feel valued and acknowledged. Recognizing individual strengths and areas for growth allows facilitators to offer tailored support, fostering a sense of belonging and encouraging deeper engagement. This personalized approach boosts morale and strengthens team cohesion. Strong facilitators who utilize POA also demonstrate critical leadership skills. Recent historiometric analyses of team leadership in mission-critical and isolated environments have provided valuable insights into team dynamics. Studies by DeChurch et al. (2011) and Burke et al. (2018) highlight how understanding leadership in challenging contexts can enhance team performance and inform strategies for effective facilitation

### ***Driving Organizational Productivity and Innovation Through Effective POA Facilitation***

Effective POA facilitation has a significant impact on organizational productivity and efficiency. Motivated teams with high morale are more likely to collaborate effectively, enhancing problem-solving and innovation. Research by McKinsey highlights that successful facilitation improves team performance by establishing clear roles, using effective communication tools, and fostering a culture of continuous improvement, enabling seamless collaboration (Comella-Dorda et al., 2023). Engaged teams show higher productivity as empowered individuals take the initiative and contribute ideas. This collective effort improves work quality and streamlines processes by minimizing misunderstandings and

ensuring goal alignment. Skilled facilitators using POA regularly assess team dynamics and encourage feedback, building a culture of ongoing learning and adaptation. This approach not only enhances team performance but also supports organizational strategic goals, driving efficiency and effectiveness.

Transformational leadership plays a key role in boosting team dynamics. Leaders with a participative style promote employee involvement, cultivating a sense of ownership that increases motivation and morale. This leadership approach aligns team efforts with organizational objectives, improving both productivity and efficiency (Akinniyi et al., 2021). By prioritizing active listening and meaningful connections, participative leaders foster open communication, enabling constructive conflict resolution and strengthening team cohesion.

### ***Fostering Continuous Learning and Resilience Through Proficient POA Facilitation***

In addition to boosting team morale and motivation, POA fosters an environment of continuous learning and development. Skilled facilitators create a feedback-rich atmosphere, enabling team members to gain insights into their contributions and those of others. The A-B-C framework—attitudes, behaviors, and cognitions—emphasizes the role of trust and cohesion in effective teamwork. POA helps facilitators understand and guide these emergent states by capturing real-time interactions and tracking team dynamics over time, leading to targeted improvements (Delice et al., 2019). Continuous feedback reinforces mutual respect and recognition, strengthening interpersonal bonds and encouraging team members to leverage their strengths for collective success.

Teams practicing POA develop resilience and agility, promoting adaptive, real-time responses to challenges. These qualities are crucial in modern organizations, where collaborative innovation and problem-solving drive long-term success (Harvey et al., 2023). Additionally, POA enables facilitators to identify and address potential issues proactively, reducing conflicts and misunderstandings. This approach cultivates a culture of open communication and adaptability, where constructive feedback and learning from past experiences become standard practices, ensuring teams remain aligned and effective.

### **Directions for Future Research**

The POA can become a valuable tool across a range of fields outside the traditional industry, enhancing areas such as team building, strategic planning, and coaching practices. In team-building and coaching contexts, POA enables facilitators to objectively observe interactions, revealing communication patterns, decision-making styles, and areas for potential growth. When applied thoughtfully, POA strengthens team cohesion by emphasizing constructive feedback over personal critique. For instance, it supports coaches in guiding teams to refine behaviors that impact productivity and morale, creating a more collaborative and supportive atmosphere (Collier, 2021).

### ***Exploring the Impact of Process Observation Analysis on Leadership Development and Strategic Team Performance***

In leadership development, the POA can be beneficial for managers who want to enhance and guide team behaviors without resorting to micromanagement. By utilizing observation, leaders can concentrate on identifying key actions or areas that need improvement, which can significantly influence organizational objectives. This approach enables them to provide

targeted support to teams by addressing specific, observable behaviors, thereby making feedback sessions more impactful and productive (Alula, n.d.). Additionally, POA has been integrated into coaching practices as a method for providing real-time feedback, allowing coaches to adjust their strategies based on direct observations of athletes' or employees' reactions (UK Coaching, 2024). These insights can also be applied to strategic planning efforts, aiding organizations in evaluating the alignment of their processes with overarching objectives.

The application of POA across these diverse areas underscores its versatility and effectiveness in improving both individual and team performance. By utilizing observation-driven feedback, various industries and professional practices can foster environments that encourage ongoing improvement and purposeful change.

### ***The Value of Multidisciplinary Approaches in Enhancing Industrial Engineering Approach in Conducting Process Observation***

Relying only on an Industrial Engineering perspective to analyze data has its inherent limitations, as it might not encompass the entire complexity of the research subject (Hassan, 2024). Studies by Rosell et al. (2018) and Hassan (2024) state that a singular focus on Industrial Engineering may miss important psychological, educational, and socio-economic factors that can affect the outcomes. The research highlighted by the British Medical Journal (BMJ) demonstrates that multidisciplinary approaches, incorporating insights from fields such as psychology, education, and development studies, can offer a more holistic understanding of the research problem. Different disciplines bring unique perspectives and methodologies, uncovering dimensions of the data that a single lens might overlook. For instance, psychologists can provide insights into human behavior and motivation, education experts can shed light on learning processes, and development studies professionals can emphasize socio-economic impacts. By integrating these varied viewpoints, the research conclusions are likely to be stronger and more comprehensive (Saunders et al., 2023).

### ***Leveraging Process Observation Analysis for Enhanced Team Dynamics, Coaching, and Strategic Planning***

The POA is a versatile tool for analyzing group dynamics, decision-making, and organizational effectiveness across industries. Cherkowski and Walker's Model for Flourishing through Mentorship emphasizes appreciative inquiry in school leadership, promoting inclusive and supportive environments. Reflective coaching strengthens relationships, teamwork, and goal setting (Cherkowski & Walker, 2018). In team building, POA evaluates interactions, identifies strengths and weaknesses, and enhances collaboration. Systematic observation helps facilitators tailor interventions to improve communication and trust. In coaching, POA offers a method to analyze coach-client dynamics. Peters and Carr's research shows how aligning coaching with team structures boosts performance and cohesion (Peters & Carr, 2013). By identifying communication patterns and decision-making approaches, POA informs coaching strategies. Lowery's study on a "coach mindset" demonstrates its impact on teachers' well-being and how mentoring fosters collaborative environments critical for organizational growth (Lowery, 2019). In strategic planning, POA ensures inclusivity and effectiveness, amplifying all voices in the process.

## ***Expanding the Applications of Process Observation Analysis in Healthcare, Education, and Community Development***

Beyond specific applications, POA benefits healthcare, education, and community development, particularly within participatory action research (PAR) frameworks. By involving researchers as active participants, communities collaboratively identify issues and propose sustainable solutions, especially in rural areas (Jorgensen, 2015). In healthcare, POA aids in observing interdisciplinary team meetings, helping professionals better understand diverse roles' contributions to patient care. A Human Resources for Health review highlights strategies like systematic team training, simulation-based activities, and tools like checklists to enhance collaboration. These methods demonstrate how POA can refine team efforts for improved patient outcomes (Buljac-Samardzic et al., 2020). A study in *BMJ Open* explored communication barriers during interdisciplinary consultations for critically injured patients, using participant observation and thematic analysis. The research emphasized that physical and psychological accessibility is critical for effective communication. However, using POA solely from an Industrial Engineering perspective presents limitations. This narrow lens may overlook key factors influencing group dynamics and decision-making. Multidisciplinary inputs could provide richer insights: psychologists can explore emotional and cognitive aspects, education experts can assess learning and engagement strategies, and development studies specialists can contextualize socio-economic factors. These perspectives enhance the depth and applicability of POA findings.

## ***Enhancing Organizational Insights through Multidisciplinary Process Observation Analysis***

Incorporating a multidisciplinary approach to POA is essential for contextualizing research findings and giving greater meaning to the data. Researchers can gain deeper insights from POA data by using a multidisciplinary approach, resulting in more effective team development, coaching techniques, and organizational transformation tactics. This collaborative approach enhances the validity of findings and ensures solutions are anchored in a comprehensive understanding of human behavior, team dynamics, and organizational environments (Widdowson et al., 2020). By collaborating with experts from various fields, researchers can draw upon diverse methodologies and theoretical frameworks, resulting in a more comprehensive understanding of group dynamics. In multidisciplinary teams, collaboration across disciplines like group dynamics, leadership, and behavioral science can improve decision-making, communication, and performance. Research on team dynamics shows that a broad range of expertise fosters richer outcomes, such as increased innovation, better problem-solving, and enhanced productivity in organizational settings. This approach is particularly beneficial in environments like strategic planning and team coaching, where varied expertise can optimize both process and impact (Slade et al., 2023). This collaborative approach can enhance the validity of the findings and improve the applicability of POA across different contexts and industries. The applications of POA are vast and impactful across various professional practices, including team building, coaching, and strategic planning.

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### **Authorship Contribution Statement**

Vielle Digor contributed to the overall idea and helped in scrutinizing the accuracy of the paper. Geewel Dariagan provided substantial support in formulating key arguments held by the group. Kristine Bernadette Empaynado focused on highlighting the possible recommendations and recognizing the shortcomings of the research paper. Jemerson Baldonado monitored the group's internal perspectives and how they helped in shaping the research process. Jeremie Nerver and Isaac Philip Eraga have facilitated data collection, data analysis, and gave conclusions based on the available data. Jaypy Tenerife reviewed and edited the paper and provided expertise in mixed-method research and the overall process of conducting Process Observation Analysis.

### **Declaration of Competing Interests and the Use of Artificial Intelligence in Academic Writing Research**

The authors confirm that there are no conflicts of interest associated with this manuscript. The authors also declare that no generative artificial intelligence (AI) or AI-related technologies were used to develop ideas and concepts introduced in the paper. The AI was only applied to improve readability and language. Following these improvements, the authors conducted a thorough editing and review process to ensure accuracy and clarity. While recognizing that AI can generate content that may seem credible, the authors are aware of its potential for bias, inaccuracies, and other limitations. To address these concerns, the authors meticulously reviewed the manuscript. The authors followed research ethical guidelines throughout the writing process.

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