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A Balancing Act: Shaping the Role of the Facilitator by
Utilizing Leadership Balancing Strategies and Dialogical
and Supportive Moves in Learning Communities

Eline Woudstra

Master Educational Science and Technology (EST)
Faculty of Behavioral, Management and Social Sciences
(BMS), University of Twente

e.g.woudstra@student.utwente.nl - S3278255

Supervision by Prof. Dr. M. Endedijk

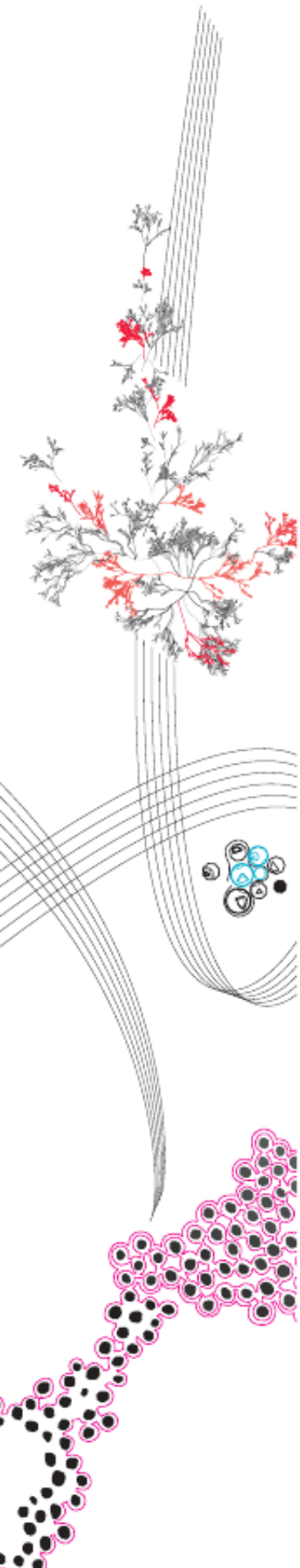
m.d.endedijk@utwente.nl

Second supervisor: B. Wiefferink

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Abstract

Learning Communities (LCs) are seen as a solution for collaborating on societal challenges. These LCs consists of multidisciplinary groups of employees who are working towards a stated goal. To achieve a productive dialogue and collaboration, an external facilitator assists the (learning) process. The importance of a facilitator is described in the literature, however, the behaviors of facilitators in its role are not clear. The main objective of this exploratory study was to research how facilitators utilize their role by using leadership balancing strategies and dialogical- and supportive moves, which are seen as strategies that facilitators use in their role and the behaviors they employ. Semi-structured expert interviews and non-participating observations, with three facilitators, were generated in order to gather in-depth information on the role of the facilitators. The analysis revealed that facilitators adapt their role to the needs of the involved members to maximize their and the LCs' potential. However, this study showed that facilitators apply different strategies during their role to support the group in their learning process. To establish this, facilitators focus on requesting information, opinions or clarification of members and providing members evidence or reasoning. This indicates that facilitators establish a common ground within the group by providing evidence or reasoning in combination with stimulating the group to take action, as well as taking time for reflection on tasks, opinions, and the learning process. These findings could be expanded more in future research by focusing on a larger sample size and taking into account context-dependent aspects of collaborations.

Keywords: learning communities, facilitators, leadership balancing strategies, dialogical- and supportive moves,

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1 Introduction

The rapid pace of transformative innovations, including digitalisation, sustainability and the energy transition, has significantly reshaped industries and everyday life (Vermeulen et al., 2018). This trend is anticipated to exert an even greater influence in the future. These innovations affect various sectors and companies, as it requires continuous improvements in existing knowledge and skills to keep pace with rapid advancements (Yarnit, 2000).

Several researchers advocate for interorganizational collaboration as a strategy to navigate and adapt to these transformations. Kilpatrick et al. (2012) and Kozuch & Sienkiewics-Malyjurek (2016) define interorganizational collaboration as the collaboration or joint activity by two or more companies that is intended to increase value within its field of private, public, and non-governmental sectors. This enables organizations and other stakeholders to restructure their activities and address overarching societal problems.

Topsectoren (2019) has introduced Learning Communities (LCs) as a form of interorganizational collaboration as a means to meet the new requirements. LCs involve interprofessional teams collaborating to accomplish a shared goal, addressing overarching societal challenges. However, multiple studies shed light on the complexity of interorganizational collaborations, and therefore LCs. Establishing these collaborations requires high involvement of members (Gould et al., 1999; Huxham & Vangen, 2000; Vangen, 2002) and the chances of failure or not reaching the aimed results are shown as high (Medcof, 1997; Reuer, 1998). Studies have researched the underlying causes of this complexity. Some studies suggest the lack of trust between members (Vangen & Huxham, 2003) or the dynamic structure of these collaborations (Huxham & Vangen, 2000), while others suggests that it resides in the difficulty of engaging members, as the level of engagement depends on members' motivation, current knowledge, the capacity for adapting new knowledge and their attention span (Wittrock, 1991). The study of Grimm et al. (2024) suggests that it is rooted in the communication in these collaborations, as the study identifies three key factors that hinder communication (a) lack of common language register, (b) lack of common knowledge base, (c) lack of common meaning system. These key factors could lead to group members ineffectively communicating, leading to misunderstandings or not addressing main issues in the collaboration.

In order to streamline the communication between members and deal with the complexity of interorganizational collaborations and its underlying causes, the assistance of a facilitator is essential (Bovens et al., 2022; Bakker et al., 2016). A facilitator is an external individual who actively guides and stimulates the learning process, while also fostering a professional learning culture (Peterson, 2002; Endedijk et al., 2019). The role of a facilitator

is described as supporting and monitoring individual and collaborative learning processes (Endedijk et al., 2019), and is trained to set joint goals together with members, and knows how to use learning activities to attain these goals.

However, while the underlying causes of the complexity of interorganizational collaborations and LCs are studied, the uniqueness of each collaboration, in composition and level of common ground of members, requires a tailored approach of facilitators. Therefore, the role is seen as a balancing act, where the facilitator prevents misassumptions between members (Sonntag & Volmer, 2009), diagnoses the situation (Lin et al., 2016), balances members' motivation and ability to take action with the needs of the group, and adapts their role in a fitting way for the unique collaboration (London et al., 2012).

Therefore, this study introduces four dimensions of balance that facilitators can use in their role in order to provide direction or facilitate the group in their process, termed leadership balancing strategies (London et al., 2012). Additionally, this study focuses on the behaviors of facilitators to delve deeper into how they shape their role in different environments and groups. The dialogical- and supportive moves of Bjuland & Helgevold (2018) and Warwick et al. (2016) are used to examine the behaviors, aiming to investigate how facilitators shape their role in LCs by utilizing leadership balancing strategies and dialogical- and supportive moves. This study uses an exploratory approach, which involves expert interviews with facilitators and non-participating observations. The aim of this approach is to gather insights into (1) how the interviewed facilitators describe their role and what impediments they face in the process of facilitating a group such as an LC and (2) the observations will show how they execute their role by using leadership balancing strategies and dialogical- and supportive moves. Together, this will provide a deeper understanding of how facilitators shape their role in facilitating collaborative learning processes and stimulating the best outcomes of collaborations such as LCs. This will provide insights into the balancing act of the facilitators' role, contributes to research on the collaboration in LCs as a form of interorganizational collaboration, and serves as a mechanism to encourage collaborations aimed at solving overarching societal challenges.

2 Theoretical framework

2.1 Learning Communities (LCs)

LCs are seen as a form of interorganizational collaboration and serve as a means to meet new requirements of continuous improvement in companies and environments to keep pace with the rapid advancements (Yarnit, 2000). However, the complexity of these collaborations shows that the approach and definition of LCs are context-dependent. This makes identifying the core characteristics of LCs complicated (Kilpatrick et al., 2012). Nevertheless, studies have described LCs as interprofessional teams collaborating to accomplish a shared goal, addressing overarching societal challenges. Additionally, various contexts of LCs are shown (Schipper et al., 2022; Schipper et al., 2023). These range from educational settings, where the goal is to foster deeper learning, to LCs in organizational contexts that aim to connect by common interests and work together on a shared goal (Van Rees et al., 2022). Kilpatrick et al. (2012) supports this claim by emphasizing that LCs have multiple uses, not only sharing of knowledge, but they can also create new knowledge that can be beneficial for a broader community. Endedijk et al. (2019) suggests two different approaches to LCs: (1) challenge based, aiming to build on existing knowledge and skills to develop new expertise with an interprofessional team from one company in 10 weeks time (Corporaal et al., 2021), and (2) an LC aimed at sharing existing knowledge and involves multiple companies. This study focuses on challenge based intra-organizational LCs where interprofessional teams of employees work together on a shared goal. They do so, by coming together on a weekly basis for reflective meetings, working towards their stated goals. This collaboration facilitates knowledge sharing, but is also focused on creating new knowledge that is beneficial for the members of the LCs (Kilpatrick et al., 2012b).

2.2 Impediments of collaborations such as LCs

The strength of these collaborations are also their weaknesses: the diversity of opinions, views and interests creates the opportunity to work on or solve complex problems but also creates challenges with establishing a productive dialogue between members. This claim is supported by Kilpatrick et al. (2012b) and Cohen & Mankin, (1998), who both emphasize the importance of collaboration between specialists and experts, especially in today's rapid pace of innovations. Additionally, Edmondson & Nembhard (2009) state that collaboration with a diverse group of people can cause challenges. Seidel & O'Mahony (2014) and Edmondson & Nembhard (2009) explain that collaboration is more than getting a diverse group of people into the same room. It includes different values and norms of individuals, which can create unquestioned assumptions and that will create a boundary in a

productive collaboration. Grimm et al. (2024) describes 'common ground' as an essential factor for establishing a productive dialogue within collaborations such as LCs. This is defined as the joint knowledge and beliefs that members have, and creates a shared understanding, fundamental for collaborating. The study also states that a productive dialogue and collaboration can only occur when members have a minimum level of joint understanding. A lack of common language register could hinder this process. This refers to members not using the same terminology or style when communicating. Furthermore, a lack of common knowledge base could occur when members have an absence of common ground of knowledge or reference. Lastly, a lack of common meaning system could create misinterpretations of concepts or situations and the absence of shared values (Grimm et al., 2024).

2.3 The assistance of a facilitator

To ensure that the collaboration proceeds efficiently, an external facilitator is included in the learning process of LCs. Casey & Goodyear (2015) show that an external facilitator is beneficial for reflecting and learning together, in contrast to an internal facilitator. Facilitators in this study are connected by a development and research project which serves as a collaborative party of knowledge institutions who set up LCs and connect facilitators based on their availability to a certain LC (Endedijk et al., 2019). Research by Bovens et al. (2022) showed that the role of the facilitator is crucial to accommodate learning within the context of an LC. According to Torosyan & Ortquist-Ahrens (2009) a facilitator will create and sustain a safe and effective learning environment. This claim is supported by Corporaal et al. (2021), as this research states that a professional learning environment creates less impediments in collaborating and a facilitator fosters this environment. According to Van Rees et al. (2022), the assistance of a facilitator helps team members to navigate across knowledge barriers, as different points of views may interfere with working towards a shared solution. Moreover, Kilpatrick et al. (2012b) identified that a facilitator provides human and physical resources and opportunities helps with building trust within groups, as well as a shared culture and vision.

2.4 Leadership balancing strategies

The abovementioned literature shows the importance of the assistance of a facilitator in groups such as LCs. However, studies lack clarity on the behaviors and practical strategies that facilitators execute in their role. This study will provide insights in these behaviors and strategies by studying the facilitators role and the leadership balancing

strategies that they use. These strategies serve as balancing dimensions that can be used in order to provide direction and facilitate the group in their process (London et al., 2012).

To do so, the study of London et al. (2012) will be used as a framework which focuses on generative leadership strategies and are defined as the continuous adjusted balance of: (A) self-awareness and awareness of others, (B) supporting self-management by helping members track their own progress as individuals versus the progress of the group, (C) overcoming barriers and managing relationships, and (D) stimulating openness and learning. These aspects of generative leadership strategies can be summarized into two primary roles for facilitators: **(1) providing direction**, which includes creating structure and (re)focusing the discussions, aiming to create a more productive learning environment, and **(2) facilitating**, which includes establishing a group where everyone is able to share, it is seen as a safe space and the facilitator bringing tools that are needed at that point of the collaboration.

As these generative strategies show, the role of the facilitator is continuously adapting throughout the process of the LC. Therefore, facilitators have to diagnose the situation and maintain balance throughout the whole process (London et al., 2012). London et al. (2012) identifies four dimensions of balance within these primary roles: (1) goal setting, (2) sense making, (3) involvement, (4) purposeful action. These dimensions contribute to the facilitator's ability to achieve balance within the group and their needs in order to establish a productive learning environment. The first dimension 'goal setting' is defined as the balancing act of vested interests and shared goals. This requires the facilitator to provide structure for the group and their process, as well as ensuring that every member is committed to working on the shared goals and support the formulation of objectives. As such, this dimension **provides direction** in the group and the collaboration.

The second dimension 'sense making' is focused on understanding and interpreting the same information as other members to prevent misinterpretation and focus on the set goals. The facilitator creates an environment where members feel safe to express their opinions and are open for others' perspectives. This dimension is focused on **facilitating**. The same holds true for the third dimension 'involvement', that is describes as balancing autonomy within a group to make sure the group members contribute and take responsibility for their role in the group. The empowerment of members, in order to participate, and create safety and establish trust within the collaboration and the involved members are important elements for the facilitator to focus on. The facilitator has a facilitating role and encourages members to focus on their individual potential and engage actively (London et al., 2012).

The fourth dimension 'purposeful action' is a facilitators' balancing act for **providing direction**, as well as the **facilitation** of the (learning) process of an LC. It is the balancing act of taking actions that are in line with the goals that have been set, together with the facilitation of moments of reflection to steer the group into the right direction. The facilitator ensures that the group makes progress and takes actions to work on the set goal. Furthermore, the facilitator creates an environment in which reflection on past actions and the process will be discussed in order to learn from experiences and make adjustments if necessary (London et al., 2012).

2.5 Supportive practices using dialogical- and supportive moves

The leadership balancing strategies serve as strategies that can be used by the facilitator in order to provide direction and facilitate the group. However, literature shows that leadership is context- and situation-dependent, as the (capacity for creating new) knowledge, attention and motivation of members influence the engagement of members (Wittrock, 1991). Therefore, the facilitator has to balance members' engagement and needs with the goals that they are working on as a group, which demands adaptability from the facilitator. To do so, the research of Bjuland & Helgevold (2018) and Warwick et al. (2016) is used in this study to delve deeper into the specific behaviors that facilitators could use in these settings. Their study found that the facilitators create a safe environment that is seen as a space where all involved members can learn from shared understanding and contribute to 'interthinking'. They define this environment as dialogic spaces and define interthinking as the relationship between thinking and the use of language. It is defined as the point where individuals not only act together (interact) but also engage in thinking together (interthink) (Mercer, 2010). This claim is supported by research of (Littleton & Mercer, 2013, p. 25) as they define dialogical spaces as "reciprocity, mutuality (allowing) the continual (re)negotiation of meaning".

These dialogical spaces stimulate the creation of a productive learning environment (Warwick et al., 2016), which is beneficial for the collaboration of groups such as LCs. To establish a productive learning environment, facilitators can perform five dialogical moves (DM) and supportive moves (SM) (Bjuland & Helgevold, 2018; Warwick et al., 2016). The first DM is requesting information, opinion or clarification, and is defined as behavior where facilitators negotiate meaning and questioning. The second DM, making positive and supportive contributions, is explained as physical- and verbal responses, non-disputing or not participating in the discussion and creating a safe and friendly environment. The study by Bjuland & Helgevold (2018) suggest that the interaction between the dialogic- and supportive moves play a key role in creating a productive learning environment. Therefore, this move is

referred to as supportive moves (SM). This consists of physical responses (e.g. nodding) as well as verbal responses (e.g. minimal responses) by the leader or facilitator of groups (Bjuland & Helgevold, 2018). The third DM, expressing shared ideas and agreements, refers to the co-construction of knowledge within dialogues by members making contributions that build on each other and work towards a solution. The fourth DM, providing evidence or reasoning, is defined as facilitators illustrating their arguments in order to establish a common ground. The fifth DM, challenging ideas or re-focusing talk, refers to facilitators giving critique in a positive and professional way.

3 The present study

Concluding, the role of the facilitator can be executed in different ways. Therefore, this study will explore how facilitators shape their role using leadership balancing strategies and dialogical- and supportive moves within LCs. By doing so, the behaviors that facilitators utilize will be examined, together with the strategies they aim to employ. This will generate insights into the role, which can help with understanding group dynamics in settings such as LCs and provides developmental opportunities for facilitators' trainings to establish a more productive collaboration between members of LCs, which helps with solving overarching societal challenges. This research will provide deeper understanding of the role of the facilitator in assisting in LCs as a form of interorganizational collaboration. An exploratory approach is used with qualitative research methods. The main research question that will be studied is: "How do facilitators utilize leadership balancing strategies and dialogical- and supportive moves to shape their role in LCs?".

4 Research approach

4.1 Method and Research design

To address the central research question this study employs a qualitative approach. This research consists of semi-structured expert interviews and non-participant observations (Harrel & Bradley, 2009). The semi-structured expert interviews are conducted with three facilitators actively engaged in various LCs to explore their perspectives on their role and identify the impediments they encountered within their work as a facilitator. The approach of using semi-structured expert interviews is chosen, because it provides flexibility in the conversations, as well as gathering detailed information and zoom into interviewees' perspectives (Harrel & Bradley, 2009). The inductive approach for analysing these interviews was open coding, where the focus was on how facilitators define their role, experiences and

impediments that they might have faced in LCs. This will be explained more detailed in the procedure.

4.2 Semi structured interviews

4.2.1 Participants and context of semi-structured interviews

The participants were selected through purposive sampling. All participants were already involved in a research project from the University of Twente to which this study is also related. The facilitators have been actively involved in more than three LCs over a period of 5 years. The three facilitators all operated in the context of installation companies or security and digitalization. To gain a clear understanding of the facilitator's experience and way of working, the interview addressed three different LCs in greater depth. These three LCs are conducted at three different installation companies, with different compositions of members. The facilitators are termed facilitator 1 till 3. The compositions of the various LCs that are discussed within the interviews are shown in appendix A. All participants agreed to take part in the study, including the recording of these interviews, and signed a consent form that was created by the BMS Ethical Research Department of the University of Twente. The ethics committee of the University of Twente approved the gathering of data for this study. Furthermore, the researcher has signed a form to keep the data confidential and anonymously process data.

4.2.2 Procedure of semi-structured interviews

A semi-structured interview guide was created with questions that are specific enough to gather in-depth information, and sufficiently general to allow space for participants' thoughts and opinions. The questions were framed by following up the questions of previous research on this topic by other researchers within the project of the University of Twente that aligns with this study. These questions addressed facilitators' preparation, lessons learned, experiences in their role, and interventions that facilitators executed. This study focused on how facilitators would describe their role, expectations and preparations that they had before starting the LC, what they see as their responsibilities and activities, and impediments that they might have faced during their role. Therefore, lessons learned and interventions were excluded from this study. Multiple facilitators were interviewed in this study and reliable and useful data was gathered.

Additionally, facilitators were asked to discuss their role, experiences, and impediments that were faced in LCs, related to the various challenged identified by Grimm et al. (2024). As introduced in the theoretical framework, these are (1) lack of common language register, (2) lack of common knowledge base, (3) lack of common meaning system.

As such, information was gathered about how the activities of a facilitator in LCs were influenced by these challenges and how that might have hindered communication or collaboration within groups their LCs.

The interviews with facilitators began by talking through the consent form so that they understood the aim of this study and ensured that participants understood their rights. As the semi-structured expert interview approach suggests, the interviews started with general main questions which was supplemented by additional questions to delve deeper into their initial responses. Each interview lasted approximately 60 minutes. At the end of the interview, the facilitators were thanked for participating.

4.2.2.1 Processing of interviews

The interviews were recorded via Microsoft Teams, transcribed using Amberscript, and coded in ATLAS.ti. The transcribing of the interviews has been checked after using Amberscript and specific information is removed to make sure the data is non-traceable. This includes names of companies and projects. The coding was done in ATLAS.ti, where an open-coding approach was used. One researcher participated in the coding process. To start the processing of the interviews, they were read, and two categories were assigned: (1) Facilitators’ role and (2) Leadership balancing strategies.

The first category includes the description of the role that the facilitators gave, the expectations they had before starting the LCs, the preparations they did before starting the LCs, the responsibilities and activities that facilitators felt as their supporting role in LCs, and impediments that they might have encountered during their facilitating role.

The second category consists of the leadership balancing strategies that are discussed in the theoretical framework and consist of goal setting, sense making, involvement and purposeful action. This codebook is shown in table 1.

Table 1
Codebook for semi-structured expert interviews with facilitators with the cases identified in the study of Grimm et al. (2024)

Category	Code	Description	Facilitators interviews and interpretation of study by London et al. (2012)
Facilitators’ role	Role description	The role as a facilitator described by the interviewed facilitator.	“A facilitator supports a group in achieving a learning moment or outcome, in a way

		that has practical relevance for them” – Facilitator 1.
		“I perceive the role as securing a feeling of safety within the group” – Facilitator 3.
Expectations	The expectations that facilitators had before starting their duties as a facilitator.	“I think I approached it with an open mind, but I did have the intention of wanting to get the group moving, and that was also my expectation” – Facilitator 3.
Preparations	The preparations that facilitators did before starting their duties as a facilitator.	“You are informed about the goal of the LC, so you have a general idea of where you are heading. From there, you start considering: what tools can I use to answer these specific questions as efficiently as possible? So yes, I think about a method or approach, but it can still change on the spot” – Facilitator 1.
Responsibilities and activities	The activities that the interviewed facilitators feel as their supporting role in the LC.	“I believe it is my responsibility to ensure that the people at the table get to work, starting by simply listening and seeing who has something to share. It’s relatively easy to get started, because you can ask: where is everyone in the process, and what exactly are

			you working on?” – Facilitator 2.
	Impediments	The impediments that facilitators encounter in their work within LCs.	“Generally, things progress very slowly, and sometimes you need a content-focused leader to guide the group. That is not me, I am an external facilitator of the process. Part of my job is to nudge the group towards making a decision, but this decision can’t be made by me” – Facilitator 1.
Leadership balancing strategies	Goal setting	<p>“Balancing members’ vested interests with establishing a shared vision and shared goals. This contributes to the members’ commitment and understanding of each other’s background and perspective.</p> <p>Members assimilate a shared understanding of their diverse backgrounds and interest through conceptualizing their own identities and reflecting and verifying others’ views of them” (London et al., 2012, p. 34).</p>	Stimulating setting shared goals. Focusing on shared interests and ensuring the creation of goals that each member endorses and is committed to pursuing
	Sense making	“Balancing the group members’ exploring and	Developing a clear understanding of the direction

	<p>experimenting with their analyzing and conceptualizing what they learned. This contributes to members' openness to new ideas and to each other's viewpoints. Members converge in their perceptions of goals and tasks as they explore and conceptualize" (London et al., 2012, p. 34).</p>	<p>of the group: defining the areas of focus, identifying themes that are of common interest, and determining the insights we aim to achieve</p>
<p>Involvement</p>	<p>"Balancing the leader's need to control and direct the group with empowering group members to shape the group's direction and process. This contributes to members' trust in each other and the leader and to the development of a shared memory for constructive transactions that they can draw on as situations change. Members accommodate their exploration and experimentation with the concrete experiences directed by the leader" (London et al., 2012, p. 34).</p>	<p>Stimulating accountability, ownership and commitment within the LC</p>

Purposeful action	“Balancing the leader’s and member’s desire to take action with time for reflection. This contributes to members’ sense of collective efficacy. Members diverge from prior understandings as they reflect on (make sense of) their experience in the group” (London et al., 2012, p. 34).	Ensuring that the group takes actions that align with and support the overall objectives. Reflecting on the process.
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4.3 Non-participant observations

4.3.1 Aim and context

The semi-structured interviews are complemented by non-participant observations, capturing real-time interactions, which are valuable for settings such as LCs as they emphasise the understanding of relationships and interactions between members, including facilitators (Ciesielska et al., 2018b), as well as group dynamics (Lawrence, 1994). The observations are carried out through 3D-video recordings from various LCs wherein the three facilitators were actively involved to get insight into their role as a facilitator. The non-participant observations were videotaped with a 360-degree camera. This allowed the researcher to analyze the LCs afterwards. Appendix A shows a list of the LCs that the facilitators executed and their composition. In order to ensure alignment with the LCs that were discussed during the interviews, this study focused on three different LCs. To study the facilitators in their role and compare the outcomes of the qualitative study with the behaviors that facilitator showed in the observations, the focus was on LC A for facilitator 1, LC C for facilitator 2 and LC H for facilitator 3, which is shown in table 2. For this coding process, the framework of London et al. (2012) is used to analyse the leadership balancing strategies, and the association with the dialogical- and supportive moves of Warwick et al. (2016) and Bjuland & Helgevold (2018), as explained in the theoretical framework. Combined, this will demonstrate how facilitators use these strategies and moves to utilize their role in LCs.

Table 2

Details about the studied LCs and facilitators

LCs and facilitator	Meetings	Average duration
LC A by facilitator 1	10 meetings	1 hour per meeting
LC C by facilitator 2	6 meetings	1 hour per meeting
LC H by facilitator 3	10 meetings	1 hour per meeting

The composition of participants remained consistent throughout the LC. The video recording of these meetings has provided the opportunity to transcribe the discussions and conversations that took place within an LC. Therefore, they have been transcribed using Amberscript. The video recordings of two LCs were uploaded by other researchers, as they used this data in another part of the project that this study aligns with. For all three LCs and their meetings, the transcripts have been checked, and specific information is removed to make sure the data is non-traceable. This includes names of companies and projects. The transcripts were uploaded in ATLAS.ti, where they were coded with the use of two different frameworks.

The leadership balancing strategies have been coded by the use of four strategies identified by London et al. (2012). The codebook that has been used can be found in appendix B. This coding has been done by one researcher and consists of all three LCs and all of their meetings. In order to study the association between the strategies and dialogical- and supportive moves, a combination of these two frameworks is used.

The moves were coded after the strategies by using the codes: (DM1) Requesting information, opinion or clarification; (DM2) Making positive and supportive contributions; (DM3) Expressing shared ideas and agreements; (DM4) Providing evidence or reasoning; (DM5) Challenging ideas or re-focusing talk. The two LCs that have been used in another study within the project have been divided between and coded by three different researchers. The third LC has been coded by one researcher. The absence of interrelated coding can create a bias due to the subjectiveness and interpretation of the researcher(s). However, to establish a mutual understanding of concepts, the codebook aligns and consists of the interpretation of the concepts. The codebook for the dialogical- and supportive moves can be found in appendix B. This shows the code, description and examples from their study.

After the coding process, the results are structured into a within-case analysis, which includes both qualitative results and statistical associations in order to study how the facilitators utilize their role in their specific LCs, and an across-case analysis, to study patterns of strategies and moves across the different cases. Together, this will provide insights into if and to what extent their behaviors are context dependent or generalizable.

The results will be structured in the following way. First, the within-case analysis describes the qualitative results, establishing an insight into the following aspects: (1) facilitators' role, including a role description, their responsibilities and activities, their expectations and preparations, and the impediments that they face in their role. Additionally, (2) the leadership balancing strategies are coded throughout the interview to show if and when the facilitator describes one of the strategies during the interview. However, not all strategies are shown and not all challenges are discussed in great depth.

Secondly, descriptive statistics of leadership balancing strategies are discussed, including the frequency of the use of the strategies, standard deviations and other statistics that show the variation of the strategies throughout the LC meetings. Additionally, a visual representation of the strategies for each meeting of the LC is shown. This provides information about when, during the sequence of meetings, the facilitators utilized a specific strategy.

Thirdly, the significance of the association between the leadership balancing strategies and the dialogical- and supportive moves are tested and described by using a cross-tabulation that shows an overview of the observed frequency (OF), expected frequency (EF) and adjusted residual (AR). Which can be interpreted as: a positive adjusted residual (>1.96) indicates that a combination between a strategy and move is observed more frequently than expected by chance. This indicates an association between the move and strategy. A negative adjusted residual (<-1.96) shows that the combination between the move and strategy are significant less observed than expected. These results are shown in tables, and DM1 is described as 'requesting', DM2 as 'positive', DM3 as 'expressing', DM4 as 'providing', and DM5 as 'challenging'.

The across-case analysis consists of a comparison of the descriptive statistics across cases to compare the qualitative results with the statistical data, aiming to draw conclusions about the behaviors of facilitators across the cases. Additionally, the descriptive statistics of the leadership balancing strategies are studied across cases. Followed by, the significance of the association with the dialogical moves, by the use of a cross-tabulation and a visual representation in the form of a heatmap. Lastly, the observed patterns, differences, and behaviors between the facilitators across cases are described to provide across-case conclusions.

4.4 Combination of approaches

The combination of using semi-structured interviews and non-participant observations to gather data enhances the credibility of the research findings by allowing for methodological triangulation. The expert interviews created a clear representation of how the facilitators

define their role in LCs, and the behaviors executed during their role. The non-participant observations provide a real-time view of the behaviors and strategies of a facilitator while supporting the group in meetings of the LCs. Together, this will provide insights into the balancing act of the facilitators' role, contributing to research on the collaboration in LCs as a form of interorganizational collaboration, and serves as a mechanism to encourage collaborations aimed at solving overarching societal challenges.

5 Results

The following section presents the results of the exploratory study, focusing on a within-case and across-case analysis. First, the within-case analysis is described, focusing on each of the LCs and facilitators, followed by the across-case analysis.

5.1 Within-case analysis

5.1.1 LC A conducted by facilitator 1

The first LC, facilitated by facilitator 1, was conducted within an installation company and comprised six members with diverse roles, including mechanic, recruiter, and team leader. In the following text, the qualitative results will be discussed, followed by descriptive statistics of the leadership balancing strategies and the tested significance of the association with the dialogical- and supportive moves in this particular LC.

5.1.1.1 Qualitative results describing facilitators' role

Role description and responsibilities

Facilitator 1 showed the leadership balancing strategy of involvement during the interview. This is reflected in the facilitator explaining: "As a facilitator you are in a gray area. You are responsible for the progress, but at the same time you manage resistance, openness to change and personal beliefs of members". The facilitator explained to be responsible for the outcome of the collaboration, regardless of what these outcomes may be. Facilitator 1 describes it as: "supporting a group in achieving a learning moment or outcome, in a way that has practical relevance for them. I am guiding them towards the outcome. They typically do not know whether the result will be A, B or C, so I am directing them towards an outcome, I do not have control over whether it will be A, B or C". To get to an outcome, the facilitator asks members questions and their opinions to make sense of information and establish a common ground to work with. This is also reflected in the facilitators' opinion of members being responsible for shaping their own process and learning experiences. Facilitator 1 explained to be at service of the group, but the members determine what that entails and how the role is executed.

Expectations and preparations

Facilitator 1 prepares the role by focusing on the leadership balancing strategies of sense making, purposeful action and involvement. Sense making is reflected in the facilitator stating: “I start with a structure and clear boundaries as a preparation tool, but if I sense that something does not resonate with the group, I adjust course. It is not a determining factor in achieving a result”. This reflects sense making. During the LC, the facilitator adapts the role to the needs of the members, by asking them to reflect on the process and on what they perceive as the logical next step in the process. This is reflected in the facilitator explaining: “I am not part of the content, I am focused on the process. I want them to achieve a result at the end of the LC, but they are responsible for their process. I do this by pointing out where we currently are in the process and ask them what they feel as the next step. My role is mainly asking questions, and again, and again”.

Impediments faced by the facilitator

The facilitator focuses on involvement while facing impediments. This is reflected in the facilitator’s wish to stimulate autonomy in the group. The facilitator explained: “You, as a facilitator, are an external who facilitates the process and occasionally pushes that a decision needs to be made, even if that decision has to be made outside the current group of members. Sometimes you have to force a decision in order to keep the group together. However, it is all about letting go for me. They want to achieve something, so if they are not willing, I will push them a bit, but eventually they have to do the work themselves”.

Additionally, the facilitator showed to use the strategy of purposeful action when the diversity in hierarchical levels within the group creates differences in common language register. This is reflected by the facilitators’ focus on reflection and observation, by saying ‘I notice this... or sense that...’. Furthermore, the facilitator showed to use involvement as a strategy to overcome differences in levels of authority, by bridging the gap between these levels to ensure that each member’s contribution is integrated and valued. When this occurs in the group, the facilitator “would go over some terms with them, and ask what do we mean by that? And hang a definition on that, as a few core concepts. If the levels of knowledge or values are still too far out of each other, I would give members an assignment: ‘have you noticed that people do not understand you very well?’ This will, hopefully, stimulate them into trying to be understood by others”. Both strategies, purposeful action and involvement, are shown in the facilitator trying to foster a safe environment in which everyone is comfortable with sharing their feelings and ideas. This is shown in the facilitator using mirroring of behavior and one-on-one conversations as a strategy to help reflect on situations, align expectations in the group, refocus the group dynamics and clarify misunderstandings.

5.1.1.2 Descriptive statistics of leadership balancing strategies

The LC consisted of 10 meetings. The most prominent results are described, additional findings and the standard deviation, the minimum and maximum of all 10 meetings in which the strategies were found are presented in table 3. Purposeful action, that focuses on the balancing act of taking action with time for reflection and stimulates members to reflect on their prior understandings and experiences in the group, occurred most frequently with 23 instances ($SD = 1.89$, $min = 0$, $max = 6$). This strategy is closely followed by involvement, occurring 22 times ($SD = 2.15$, $min = 0$, $max = 6$). This strategy focuses on balancing the need to control and direct the group while empowering members to shape their own learning process and direction. This includes trust within the group and the exploration of members' perspectives. Conversely, goal setting, which focuses on balancing members' interests with a shared vision and goals, was the lowest observed strategy with 4 instances ($SD = 0.70$, $min = 0$, $max = 2$),

Table 3

Leadership balancing strategies within LC A conducted by facilitator 1

Leadership balancing strategy	Frequency	Average	<i>SD</i>	<i>Min</i>	<i>Max</i>
Purposeful action	23 (33.3%)	2.3	1.89	0	6
Involvement	22 (31.9%)	2.2	2.15	0	6
Sense making	20 (29.0%)	2.0	2.05	0	6
Goal setting	4 (5.8%)	0.4	0.70	0	2
Total	69 (100%)				

Additionally, figure 1 provides an overview of the leadership balancing strategies used during each meeting of this specific LC. A remarkable aspect is that sense making is used most frequently in the first and fourth meeting, and frequently lower at a later moment in the LC meetings. This can be explained as the facilitator trying to establish a common ground of knowledge, where making sense of information and processing it in the same way as other members, is an important aspect. It could be argued that the common ground is set during the first four meetings and therefore less addressed at a later point of the LC.

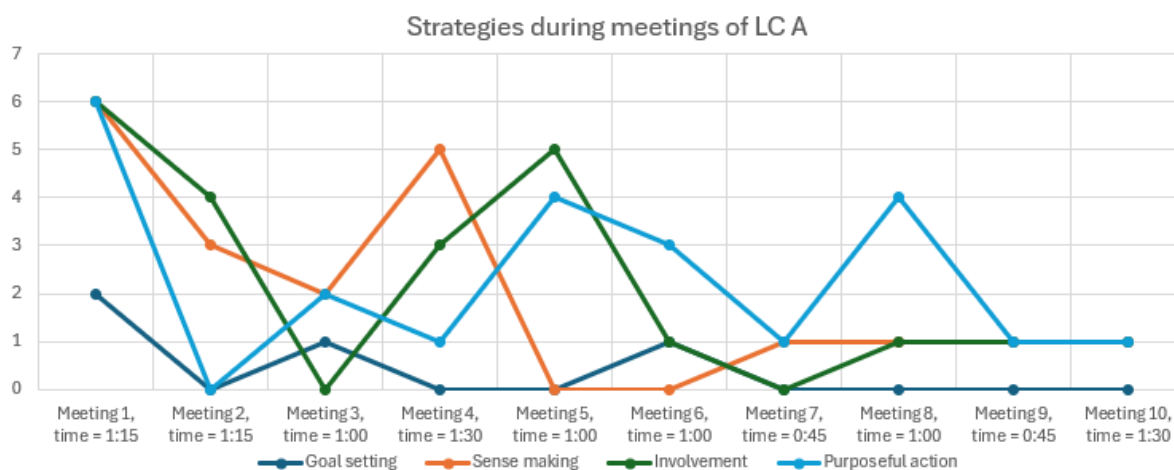
The same holds for involvement, as it is most frequently used in the first meeting, and in the fifth meeting. This can be explained by the facilitator setting expectations at the

beginning of the LC and later, for example in meetings 4 and 5, reminding the members of their involvement. Purposeful action is used throughout the whole LC, with the highest frequency in the first meeting, followed by the fifth meeting. This is reflected in the qualitative results suggesting the facilitator focuses on the (learning) progress of the LC and stimulating members to take action and initiative.

As the qualitative results also show that the facilitators' approach is focused on members needs and their own initiatives, it can be explained that goal setting is used less frequently over the meeting of the LC than other strategies. Additionally, as the facilitator states to be responsible for the outcome of the collaboration, because the facilitator believes members need to take that initiative themselves, it can be that the facilitator does not focus or attend to these goals or help with setting them. This could explain the low frequency of the leadership balancing strategy of goal setting.

The visual representation shows that all strategies are used most in the first meeting. This can be explained as the facilitator introducing the challenge that the members will be working on during the LC, trying to make sense of this challenge and establishing common ground, setting expectations in the form of members' involvement, and stimulating members to take action in order to create a productive learning environment.

Figure 1: Leadership balancing strategies during the meetings of LC A



5.1.1.3 Significance of association and interpretation of results

A cross-tabulation was conducted to study the association between the leadership balancing strategies and dialogical- and supportive moves for facilitator 1. This significance is shown as near-significant, as the Chi-Square test ($X^2 = 17.88$, $df = 12$, $p\text{-value} = >0.05 = 0.1194$) and Fisher Exact test ($p\text{-value} = 0.058$) indicate. However, the results do not reach conventional significance ($p\text{-value} < 0.05$). It is not significantly shown that the distribution of

the moves vary depending on the use of the leadership balancing strategies, indicating a relationship between the variables. Therefore, it is interpreted as a trend and not a significant relationship and should be interpreted with caution. Table 4 provides an overview of the cross-tabulation. These results provide the following insights.

The qualitative results and the visual representation of the leadership balancing strategies throughout the meetings of the LC suggest that the facilitator does not focus on goal setting as much as on other strategies. This is supported by the results of the cross tabulation, as goal setting is observed frequently less (in total) than other strategies. This can be explained as the facilitator states to be responsible for the outcome but does not set the outcome. Therefore, the low score of goal setting may be explained to the fact that the facilitator does not set goals itself, but let members set these goals. Conversely, the results show a high observed frequency of sense making and involvement in association with DM1 (42%, 50%) and DM2 (24%, 29%). However, purposeful action has more variation between the different moves but also shows the highest observed frequency with DM1 (33%) and DM2 (32%).

These results show that the facilitator requests information from members to both make sense of information, establish a common ground and stimulate members to take initiatives and develop autonomy in the group by making positive and supportive contributions. Additionally, the facilitator focuses on stimulating members to reflect on their involvement and the progress they are making, while also stimulating them to choose the next step in the process. This is supported by the qualitative-, descriptive-, and cross-tabulation results.

The cross-tabulation also shows that purposeful action and DM4 are less observed (AR=-2.2) than expected, and the same holds for involvement and DM5 (AR=-2.2). However, the lack of statistical significance could suggest that this result is due to random variation.

Table 4

Cross-tabulation of moves and strategies by facilitator 1 LC A

Strategy		Requesting	Positive	Expressing	Providing	Challenging	Total
Goal setting	OF	1 (25%)	2 (50%)	0 (0%)	0 (0%)	1 (25%)	4 (100%)
	EF	1.6	1.1	0.3	0.4	0.5	3.9
	AR	-0.6	1.0	-0.6	-0.7	0.7	
	OF	62 (42%)	35 (24%)	12 (8%)	19 (13%)	19 (13%)	147 (100%)

Sense	<i>EF</i>	58.4	41.2	12.9	14.8	19.6	146.9
making	AR	.8	-1.6	-4	1.6	-2	
Involvement	OF	21 (50%)	12 (29%)	2 (5%)	6 (14%)	1 (2%)	42 (100%)
	<i>EF</i>	16.7	11.8	3.7	4.2	5.6	42
	AR	1.5	.1	-1.0	1.0	-2.2	
Purposeful	OF	38 (33%)	37 (32%)	13 (11%)	6 (5%)	20 (18%)	114 (100%)
action	<i>EF</i>	45.3	32.0	10.0	11.5	15.2	114
	AR	-1.8	1.3	1.2	-2.2	1.7	
Total	OF	122	86	27	31	41	614
	<i>EF</i>	122.0	86.1	26.9	30.9	40.9	613.6

5.1.2 LC C conducted by facilitator 2

The second LC, facilitated by facilitator 2, was conducted in a collaboration with three companies focused on property and real estate, insurance, and taxes. From each company three or four members joined the LC, with diverse roles, including manager(s), young talents, L&D consultant(s), and team leader(s). In the following text, the qualitative results will be discussed, followed by descriptive statistics of the leadership balancing strategies and the tested significance of the association with the dialogical- and supportive moves in this particular LC.

5.1.2.1 Qualitative results describing facilitators' role

Role description and responsibilities

Facilitator 2 shows the leadership balancing strategies of involvement and purposeful action during the interview. This is reflected in that the facilitator describing "you are the central point, the connection between everything, the content, the member, each other, between everything". It focuses on how people can connect with each other, stay together, and help finding them the right focus for their collaboration, and keep stimulating their process. Purposeful action is reflected in the facilitators aim to not influence the substantive outcome of the group, instead focusing on the process leading up to the outcome. Additionally, the facilitator uses body language of members as a starting point for reflecting upon the situation and the understanding within the group. This is also reflected in the facilitator explaining: "It is trying to create a safe space where everyone feels free to share, but what activities that entails is dependent on the members and what is needed within a group and the process of the collaboration. It is all about mutual understanding and mutual input". The facilitator employs purposeful action by asking questions, stating facts or opinions and by focusing on members' intrinsic motivation. By doing so, the facilitator creates more

involvement and uses everyone's expertise in order to achieve common ground and a productive and safe learning environment that is based on trust and mutual understanding.

Expectations and preparations and impediments faced by the facilitator

At the beginning of the LC, the facilitator focuses on sense making, by establishing a growth mindset and focusing on the dynamics and the unspoken elements within the group. This is reflected in the facilitators' belief that every person is capable of taking the next step based on their abilities, even when that is outside their comfort zone. Additionally, involvement is an important aspect in the expectations that the facilitator sets or when facing impediments within the group or its process. The facilitator explained: "If I hear someone say something that I know another member knows more about, I say: 'wait, did you not have experience on this subject? You told me during the intake', and hopefully they will start talking about that". The facilitator sets an example in the first LC by radiating a sense of safety and encourages the group to express all perspectives, making sure that everything is acceptable, and by fostering respect for each other. However, the facilitator expects members, in each group, to take ownership of their own learning process, as the members have the most experience in their work. The facilitator stated "I start the first couple of meetings with taking initiative, and sometimes it takes a bit longer to stimulate members to take initiative, but otherwise I stop taking initiative after the first or second meeting".

5.1.2.2 Descriptive statistics of leadership balancing strategies

This LC consisted of 6 meetings, and the leadership balancing strategies were observed in total 74 times. The most prominent results are described, additional findings and the standard deviation, the minimum and maximum of all 6 meetings are shown in table 5. The most frequently occurred strategies are purposeful action with 33 instances ($SD = 3.51$, $min = 1$, $max = 11$), and involvement with 33 instances ($SD = 3.99$, $min = 2$, $max = 12$). These strategies are focused on the balancing act of taking action with time for reflection, and stimulate members to reflect on their prior understandings and experiences in the group, and balancing the need to control and direct the group while empowering members to shape their own learning process and direction. This includes trust within the group and the exploration of members' perspectives. Similarly, strategy sense making (33 instances, $SD = 2.59$, $min = 2$, $max = 9$) focuses on the balancing act of exploring and experimenting with analyzing and conceptualizing what members have learned. This includes members' openness to new ideas and others' viewpoints. The least frequently occurred strategy is goal setting with 18 instances ($SD = 4$, $min = 0$, $max = 9$), which is described as the balance of members' interests with a shared vision and goals (London et al., 2012).

Table 5*Leadership balancing strategies within LC C conducted by facilitator 2*

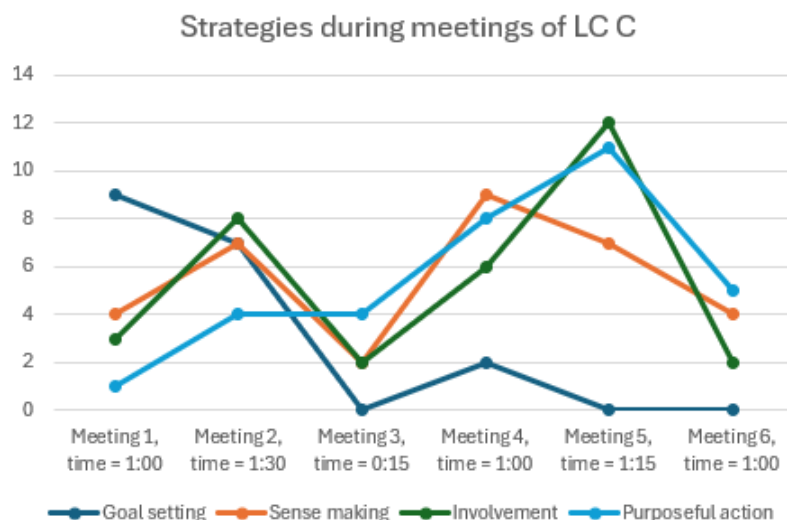
Leadership balancing strategy	Frequency	Average	SD	Min	Max
Purposeful action	33 (28.2%)	5.5	3.51	1	11
Involvement	33 (28.2%)	5.5	3.99	2	12
Sense making	33 (28.2%)	5.5	2.59	2	9
Goal setting	18 (15.4%)	3.0	4	0	9
Total	117 (100%)				

Additionally, figure 2 provides an overview of the leadership balancing strategies used during each meeting of this specific LC. The recording of meeting 3 failed and will not be taking into account while interpreting these results.

The qualitative and descriptive results showed that sense making, and involvement are important aspects in the facilitators' focus. This is supported by the results in figure 2 that show that both strategies are used throughout all meetings of the LC. This can be explained as the facilitators' belief that every member has value to add in the group, acts from intrinsic motivation and helps in making sense of information to establish mutual understanding. Therefore, it can be argued that the facilitator finds it important that members are and stay on the same page and are involved in the whole process.

Furthermore, the results show that purposeful action increases throughout the LC's meetings, whereas goal setting decreases. This can be explained as the facilitator focusing more on the process than on the progress of the LC and reflecting on the mutual understanding and process becomes more important throughout the meetings.

Figure 2: Leadership balancing strategies during meetings of LC C



5.1.2.3 Significance of the association with dialogical- and supportive moves

The association between leadership balancing strategies and dialogical- and supportive moves for facilitator 2 are shown as significant ($X^2 = 25.27$, $df = 12$, $p\text{-value} = <0.05$). This indicates that the distribution of the moves varies depending on the use of the leadership balancing strategies, indicating a relationship between the variables. Table 6 provides an overview of the cross-tabulation and provides the following insights.

The results show the highest frequencies with DM1 and DM4 in association with goal setting (54%, 21%), sense making (47%, 24%), involvement (43%, 29%), and purposeful action (34%, 35%). This suggests that facilitator 2 takes and gives in the role. The facilitator requests information from members, but also provides them with evidence or reasoning. Both aspects of the role serve different purposes. Requesting members their opinions or clarifications helps with setting clearer goals that they can work on ($AR=3.2$), and providing members with certain evidence or reasoning stimulates members to reflect on the process that they are in ($AR=3.4$), which can lead to a better or more fitting outcome of the LC.

However, there are a few exceptions. The results show that the DM1 was significantly less observed ($AR=-4.0$) with purposeful action, and the same holds for DM4 and goal setting ($AR=-2.1$). This highlights the importance of the facilitator adapting their role to the needs of the members. It can be explained as the facilitator noticing that asking questions is helpful for setting goals, but is not the right approach when trying to reflect on the process. The same holds true for providing the members with evidence or reasoning which is seen as the right approach for reflecting on the process and stimulating members to take action. However, this approach is not fitting for stimulating members to set goals. This also supports the qualitative and descriptive results that show that the facilitator focuses more on the process, by helping the group to reflect with evidence or reasoning for their actions, instead of progress.

Table 6*Cross-tabulation of moves and strategies by facilitator 2 LC C*

Strategy		Requesting	Positive	Expressing	Providing	Challenging	Total
Goal setting	OF	89 (54%)	25 (15%)	7 (4%)	35 (21%)	8 (5%)	164 (100%)
	EF	70.4	30.1	7.0	46.4	10.1	164.0
	AR	3.2	-1.1	.0	-2.1	-.7	
Sense making	OF	134 (47%)	51 (18%)	12 (4%)	68 (24%)	20 (7%)	285 (100%)
	EF	122.4	52.3	12.1	80.6	17.5	284.9
	AR	1.6	-.2	-.0	-1.9	.7	
Involvement	OF	121 (43%)	54 (19%)	11 (4%)	81 (29%)	16 (6%)	283 (100%)
	EF	121.5	51.9	12.0	80.1	17.4	282.9
	AR	-.1	.4	-.4	.1	-.4	
Purposeful action	OF	110 (34%)	64 (20%)	15 (5%)	115 (35%)	21 (6%)	325 (100%)
	EF	139.6	59.6	13.8	91.9	20.0	324.9
	AR	-4.0	.7	.4	3.4	.3	
Total	OF	454	194	45	299	65	2114
	EF	453.9	193.9	44.9	299.0	65.0	2113.4

5.1.3 LC H conducted by facilitator 3

The third LC, facilitated by facilitator 3, was conducted at an installation company where members with diverse roles joined, including project manager, mechanic, financial administrator, procurement officer. In the following text, the qualitative results will be discussed, followed by descriptive statistics of the leadership balancing strategies and the tested significance of the association with the dialogical- and supportive moves in this particular LC.

5.1.3.1 Qualitative results describing facilitators' role

Role description and responsibilities

Facilitator 3 shows leadership balancing strategies of sense making and purposeful action during the interview. This is reflected in the facilitators' purpose of maximizing the group's potential and in the facilitators' perspective on the role. The facilitator explained: "You can fulfil all sorts of roles in front of a group. You can be a teacher, a trainer, a coach, and everything at the same time. I think being a facilitator is closest to being a coach, as you have to steer the group towards the problem they are trying to solve".

Facilitator 3 describes the activities of the role as a circle: asking difficult questions to (re)focus the group, followed by reflecting on the process, while including everyone and their expertise, setting milestones, and reflecting on those. The facilitator explained to be responsible for “stimulating members to work together, listen to each other, and being open to new ideas or input of others”.

Expectations and preparations and impediments faced by the facilitator

The leadership balancing strategy involvement is used as a strategy to prepare the LC, set expectations and overcome impediments. This is reflected in wanting to start the LC as blank as possible to allow things to emerge. The facilitator explained: “Expectations are an important starting point. One time, I noticed that they wanted me to write a report. I did not want to do that, as it is not my role. Writing down actions is fine, but I will not write something for them. They are responsible for the process, and their involvement is key”. The focus is on including every member of the group and the process. The facilitator ensures this by stimulating members to step out of their comfort zone and focusing on the equal participation of every member. The facilitator reminds the members both to listen to values or opinions of others, and to ask questions to each other, as that is the facilitator’s way of stimulating the group in their process. The facilitator explained: “people have their own systems and ways of working. Typically, a division of tasks emerges naturally, and my role is less important in establishing that”. Additionally, the facilitator uses members reactions as a starting point for reflecting on certain aspects or as a stimulant to deal with distractions, as the facilitator explains “the main goal is to have a collaborative conversation, without distractions and members being open to new knowledge”.

5.1.3.2 Descriptive statistics leadership balancing strategies

This LC consisted of 10 meetings, and the leadership balancing strategies occurred 129 times in total. The most notable results are discussed, additional results are shown in table 7. Purposeful action is the most frequently occurred strategy with 69 instances ($SD = 2.73$, $min = 2$, $max = 11$). The frequency of usage lowers with each strategy, and goal setting is the least occurred strategy with 23 instances ($SD = 2.06$, $min = 0$, $max = 6$).

Table 7

Leadership balancing strategies within LC H conducted by facilitator 3

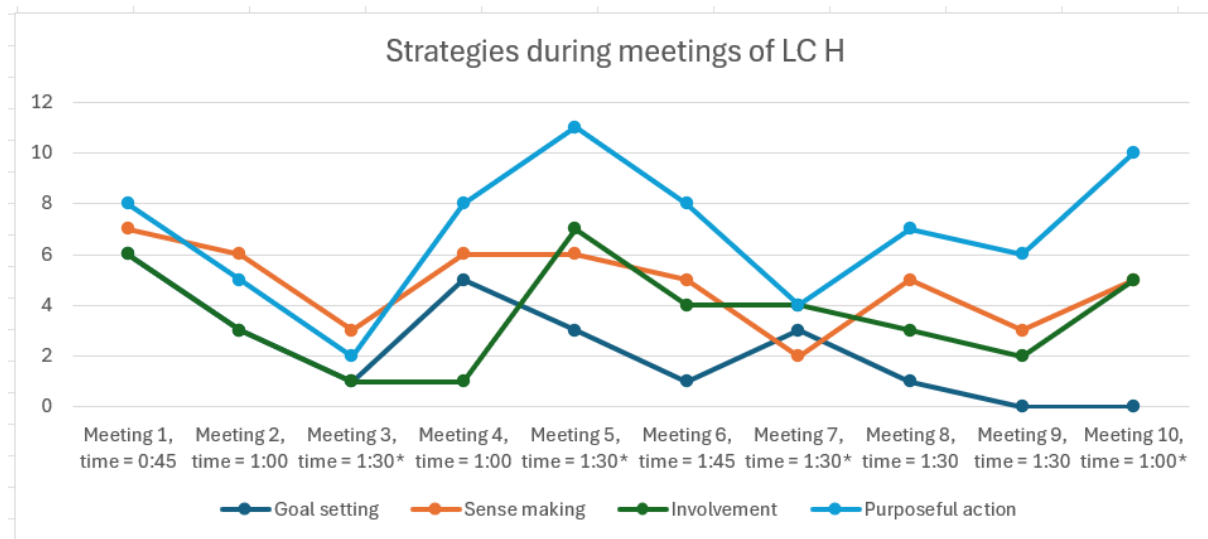
Leadership balancing strategy	Frequency	Average	<i>SD</i>	<i>Min</i>	<i>Max</i>
Purposeful action	69 (39.2%)	6.9	2.73	2	11
Sense making	48 (27.3%)	4.8	1.62	2	7

Involvement	36 (20.5%)	3.6	2.01	1	7
Goal setting	23 (13.1%)	2.3	2.06	0	6
Total	176 (100%)				

Additionally, figure 3 provides an overview of the leadership balancing strategies used during each meeting for this specific LC. An expected, but interesting aspect is that purposeful action and sense making are used throughout the entire LC. However, it is remarkable that during the meetings that an external person joined the session, the frequency of use of purposeful action is highest. Even when these meetings are not included, purposeful action still has an average frequency of use between 6 and 8, which is high compared to other strategies. This is expected, because the facilitator focuses on the reactions and behaviors of members. The facilitator uses that as an approach to reflect on what is going on, what behavior is currently happening and what behavior is more fitting to the context that they are in. This approach is seen as something that can be used throughout the whole LC, and therefore, the high score is expected. For sense making, this average is between 4 and 7, which is more variation than purposeful action, but is still a strategy used throughout the meetings of the LC. This can be explained as facilitator 3 describes the activities of the role as a circle. Asking difficult questions to (re)focus the group is the first aspect of this circle, and relates to sense making, as this helps to establish a common ground and a focus that could benefit the process of the LC.

The strategy involvement starts with a high frequency, lowers quickly, and increases slightly halfway through the LC. This can be explained by the facilitator setting expectations in the first meeting regarding members involvement in the LC, and reminding them to listen and ask each other questions. The high frequency of involvement during the meetings where an external person is involved can be explained by the facilitator trying to keep everyone involved and share their perspectives with the external person. Goal setting fluctuates over the meetings of the LC with some increases and decreases. As the facilitator focuses on maximizing the group's potential, it can be suggested that the facilitator uses goal setting in order to keep a certain focus in the meetings but uses reflection as a more fitting aspect to maximize the potential of the group.

Figure 3: Leadership balancing strategies during meetings of LC H, * external person joined the LC



5.1.3.3 Significance of the association with dialogical- and supportive moves

The association between leadership balancing strategies and dialogical- and supportive moves for facilitator 3 is shown as significant ($X^2 = 51.89$, $df = 12$, p -value < 0.05). This indicates that the distribution of the moves varies depending on the use of the leadership balancing strategies, indicating a relationship between the variables. Table 8 provides an overview of the cross-tabulation and provides the following insights.

The qualitative and descriptive results show that facilitator 3 focuses on sense making and purposeful action. This is supported by the high frequency of their use shown in the cross-tabulation. Goal setting and sense making are used most in association with DM1 (44%, 51%). Sense making is shown to be an important element of the role and is strongly observed more than expected ($AR=5.0$) with DM1. However, the association with involvement ($AR=-2.3$) is significantly lower than expected. Additionally, the association between sense making and other moves are (significantly) less observed than expected, for example with DM4 ($AR=-5.3$) and DM5 ($AR=-2.0$). This suggests that the approach of the facilitators in making sense of information or activities, with the aim of creating common ground, is focused on asking questions to members rather than providing evidence or challenging members' ideas.

The strategies involvement and purposeful action have more variation between the different moves and show 36% and 37% of the total use of the strategy with DM1, followed by 30% with DM2, and 21% and 20% with DM4. Purposeful action is shown to be one of the primary focuses of the facilitators' approach. The facilitator provides members evidence or reasoning ($AR=2.6$) in order to reflect on the process instead of requesting the group information ($AR=-3.2$). To conclude, facilitator 3 focuses most on purposeful action and

sensemaking. In order to stimulate members in their reflection, the facilitator provides evidence or reasoning and when trying to make sense of information, the facilitator focuses on requesting information or clarification from members in order to establish a common ground.

Table 8

Cross tabulation of moves and strategies by facilitator 3 LC H

Strategy		Requesting	Positive	Expressing	Providing	Challenging	Total
Goal setting	OF	68 (44%)	30 (19%)	9 (6%)	33 (21%)	14 (9%)	154 (100%)
	<i>EF</i>	64.5	44.7	8.8	26.7	9.3	154.0
	AR	.6	-2.7	.1	1.4	1.7	
Sense making	OF	270 (51%)	159 (30%)	25 (5%)	54 (10%)	23 (4%)	531 (100%)
	<i>EF</i>	222.4	154.1	30.4	92.1	31.9	530.9
	AR	5.0	.6	-1.2	-5.3	-2.0	
Involvement	OF	128 (36%)	107 (30%)	20 (6%)	73 (21%)	23 (7%)	351 (100%)
	<i>EF</i>	147.0	101.9	20.1	60.9	21.1	351.0
	AR	-2.3	.7	-0	1.9	.5	
Purposeful action	OF	244 (37%)	196 (30%)	43 (7%)	134 (20%)	42 (6%)	659 (100%)
	<i>EF</i>	276.0	191.3	37.7	114.3	39.7	659.0
	AR	-3.2	.5	1.1	2.6	.5	
Total	OF	710	492	97	294	102	3390
	<i>EF</i>	709.9	492.0	97.0	294.0	102.0	3389.8

5.2 Cross-case analysis

A cross-case analysis provides insights into how facilitators shape their role while utilizing the leadership balancing strategies and dialogical- and supportive moves. The within-case analysis provided insights into how three facilitators utilize their role by focusing on the (significant) association of the strategies and moves. To build upon this, a cross-case analysis has been made. This analysis provides the opportunity to study patterns and behaviors across cases.

5.2.1 Qualitative results

First, the qualitative results are compared with the descriptive statistics to study the behaviors of the facilitators across the cases. To do so, table 9 provides an overview of the statistical results, including the results of each case and the comparison across case (*marked in italic*). This provides the opportunity to compare the qualitative results with the statistical data, aiming to draw conclusions about the behaviors of facilitators across the cases.

The qualitative results show the behaviors of each facilitator. Facilitator 1 focuses more on members needs and stimulating their initiatives in order to reach an outcome, rather than helping them to form the outcome. This is reflected in the low frequency of goal setting (5.8%) and higher use of involvement (31.9%) and purposeful action (33.3%). The comparison between facilitators confirm this by showing that facilitator 1 uses goal setting remarkable less (8.9%) compared to compared to facilitator 2 (40%) and 3 (51%). Facilitator 2 is seen as the connector between the context and members and between members. This is reflected in the facilitator trying to make sense of information (28.2%), focusing on members intrinsic motivation, and stimulating them to take ownership over the LC (28.2%), and reflecting on a mutual understanding (28.2%). However, facilitator 3 focuses even more on reflection (55.2%) compared to facilitator 1 and 2. The qualitative results showed that facilitator 3' aim is to maximize the groups potential by stimulating members to listen and ask questions to each other. This is reflected in a high frequency of sense making (47.5%) compared to other facilitators.

Table 9

Frequency of use of leadership balancing strategies analyzed across cases

Leadership balancing strategy	Facilitator 1	Facilitator 2	Facilitator 3	Total
Goal setting	4 (5.8%, 8.9%)	18 (15.4%, 40%)	23 (13.1%, 51%)	45 (100%)

Sense making	20 (29.2%, 19.8%)	33 (28.2%, 32.7%)	48 (27.3%, 47.5%)	101 (100%)
Involvement	22 (31.9%, 24.2%)	33 (28.2%, 36.3%)	36 (20.5%, 39.6%)	91 (100%)
Purposeful action	23 (33.3%, 18.4%)	33 (28.2%, 26.4%)	69 (39.2%, 55.2%)	125 (100%)
Total	69 (100%)	117 (100%)	176 (100%)	

5.2.2 Descriptive statistics

Secondly, the descriptive statistics were conducted and revealed that within 3 LCs, and across 26 meetings, 2691 instances took place. Each meeting consisted of an average of 95 instances ($SD = 76.59$, $min = 11$, $max = 250$).

The leadership balancing strategies occurred 362 times in total. The most occurred strategy is purposeful action with 125 instances across all cases ($SD = 24.19$, $min = 23$, $max = 69$), followed by sense making with 101 instances across all cases ($SD = 14.01$, $min = 20$, $max = 48$), and involvement with 91 instances across all cases ($SD = 7.37$, $min = 22$, $max = 36$). The least occurred strategy is goal setting with 45 instances across all cases ($SD = 9.85$, $min = 4$, $max = 23$).

5.2.3 Significance of the association with dialogical- and supportive moves

The association between leadership balancing strategies and dialogical- and supportive moves across case is shown to be significant ($X^2 = 61.24$, $df = 12$, $p\text{-value} = < 0.05$). This indicates that the distribution of the moves varies depending on the use of the leadership balancing strategies, indicating a relationship between the variables.

Table 10 provides an overview of the cross-tabulation across cases. The strategy purposeful action is shown to be used the most across the different facilitators, followed by sense making. When examining purposeful action in detail, it shows a relatively balanced distribution between the various moves but has the highest observed frequency with DM1 (36%), followed by DM2 (27%), and DM4 (23%). The association with DM4 is observed significantly more frequently ($AR=2.9$), which implies that facilitators across cases focus on providing evidence or reasoning in order to reflect on the process or to stimulate members into taking action, rather than requesting information, opinions or clarifications ($AR=-5.3$). When examining sense making, it suggests an opposite result. The highest observed frequency with sense making is DM1 (48%), which is further supported by the significantly higher than expected frequency ($AR=4.8$). Where reflection within the group is stimulated by the facilitator providing evidence or reasoning, this approach is less fitting for making sense of information ($AR=-5.4$). However, requesting information, opinion or clarification is more

fitting for trying to make sense of shared information or activities in order to establish a common ground.

The strategy involvement shows a high percentage of observed frequency in combination with DM1 (40%), followed by DM2 with 26% and DM4 with 24%. However, the association between involvement and DM1 is shown as negative (AR=-1.3), while DM4 is significantly more observed than expected (AR=2.4). This suggests that the facilitators in this study provide evidence or reasoning to members rather than requesting information in order to establish involvement. Additionally, the requesting of information is also the approach that the facilitators in this study used to establish goal setting. This is supported by both a high percentage of observed frequency (49%) and the statistical results that show that the association is observed more frequently than expected (AR=2.7). Lastly, the association between goal setting and DM2 is observed less often than expected (AR=-3.3).

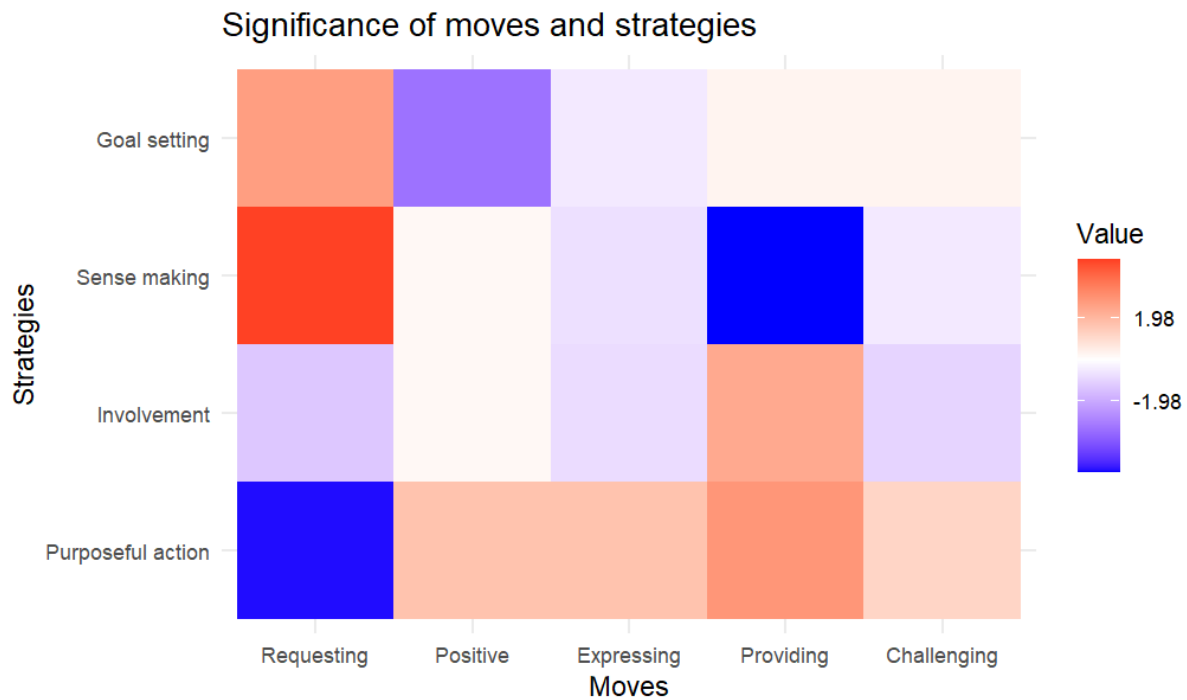
A visual representation of the adjusted residuals and the association of the leadership balancing strategies and dialogical- and supportive moves across case are shown in figure 4 by the use of a heatmap.

Table 10

Cross tabulation of moves and strategies across cases

Strategy		Requesting	Positive	Expressing	Providing	Challenging	Total
Goal setting	OF	158 (49%)	57 (18%)	16 (5%)	68 (21%)	23 (7%)	322 (100%)
	EF	135.4	81.3	17.8	65.7	21.9	322.1
	AR	2.7	-3.3	-.5	.3	.3	
Sense making	OF	466 (48%)	245 (25%)	49 (5%)	141 (15%)	62 (6%)	963 (100%)
	EF	404.8	243.0	53.2	196.4	65.5	962.9
	AR	4.8	.2	-.7	-5.4	-.5	
Involvement	OF	270 (40%)	173 (26%)	33 (5%)	160 (24%)	40 (6%)	676 (100%)
	EF	284.2	170.6	37.3	137.9	46.0	676.0
	AR	-1.3	.2	-.8	2.4	-1.0	
Purposeful action	OF	392 (36%)	297 (27%)	71 (6%)	255 (23%)	83 (8%)	1098 (100%)
	EF	461.6	277.1	60.7	224.0	74.7	1098.1
	AR	-5.3	1.7	1.7	2.9	1.2	
Total	OF	1286	772	169	624	208	6118
	EF	1286.0	772.0	169.0	624.0	208.1	6118.2

Figure 4: Heatmap of across case association between leadership balancing strategies and dialogical- and supportive moves



5.2.3 Observed differences and patterns

A few remarkable differences and patterns are shown in the qualitative-, descriptive and statistical association between the leadership balancing strategies and dialogical- and supportive moves.

First, when focusing on how the facilitators see their role, a few differences and patterns are observed. Facilitator 1 states the importance of focusing on the progress of the LC, while facilitator 2 sees the role as a connector between the members and content, and facilitator 3 tries to maximize the group's potential. The dialogical- and supportive moves show that facilitator 1 focuses on purposeful action in combination by requesting information of members, where facilitator 2 focuses on stimulating the involvement of members by asking questions, and facilitator 3 also uses this approach for making sense of information. Facilitator 1 states to be responsible for the outcome, and is steering the group towards that, while facilitators 2 and 3 aim to steer the process leading to the outcome by focusing on stimulating members to take ownership and initiatives.

Despite these differences, the facilitators agree that reflection is an important element of their role. However, this reflection takes place in different ways and is dependent on the needs of the members. For example, facilitator 1 tries to stimulate reflection by letting

members decide what the next step in the process will be, while facilitator 3 focuses on reactions of members to check and discuss if there is a mutual understanding.

Another collectively agreed important aspect of the role is stimulating involvement of the members. Facilitators 1 and 3 start the LC with setting expectations of member's involvement and reminding them to these expectations at a later moment of the LC. The results for facilitator 2 show a higher use of involvement in this LC, which can be explained as the facilitator focusing on member's intrinsic motivation and trying to stimulate members to take ownership over their (learning) process. Although the facilitators use involvement in different ways, they all show the importance of creating a safe and respectful learning environment where all members are able to participate equally.

When focusing on the association between the leadership balancing strategies and the dialogical- and supportive moves, it shows that for balancing members' interests and developing shared goals, facilitator's approach is requesting information, opinion or clarification in order to give meaning and context to the conversation. This association is found in the across-case analysis and the approach of facilitator 2. The same approach is used when the facilitator tries to make sense of information, analyze and conceptualize what members learned, and create openness to viewpoint of others. This is reflected in the across-case analysis and the approach of both facilitator 1 and 3.

Additionally, for motivating and inspiring the group to shape the direction and process of the LC and share experiences with others, facilitators provide evidence or reasoning in order to build a common ground that serves as a mutual frame of reference in the group. The same approach is used when facilitators balance the desire to take action with time for reflection and stimulating reflection on previous experiences. This is reflected in the across-case analysis and the approach of both facilitator 2 and 3. Concluding, facilitators apply different strategies during their role to support the group in their learning process. To establish this, facilitators focus on requesting information, opinions or clarification of members and providing members evidence or reasoning.

6 Discussion

To answer the research question, "How do facilitators utilize leadership balancing strategies and dialogical- and supportive moves to shape their role in LCs?", a within-case and across-case study were conducted to examine the role of the facilitator in detail. The use of semi-structured expert interviews and non-participant observations provided detailed insights into the way of working of three different facilitators, the strategies they use and the behavior they demonstrate. Additionally, a cross-case analysis shed light on both the

differences between the facilitators and a broader view which includes patterns observed across the cases.

The results show that purposeful action is the most important strategy that facilitators use in their role. This is reflected in all studied LCs, is seen throughout all the meetings of the various LCs, and is used to balance reflection with the desire to take action as members try to make sense on their experiences as member of the group (London et al., 2012). The dialogical moves show that facilitators execute this strategy by providing the members with evidence or reasoning. This indicates that facilitators reflect on the situation, the status of the collaboration and the reactions or involvement of members by illustrating their arguments in order to establish a common ground (Bjuland & Helgevold, 2018; Warwick et al., 2016). This statement is supported by research: the facilitator prevents misassumptions between members (Sonnetag & Volmer, 2009) diagnoses the situation (Lin et al., 2016), balances members' motivation and ability to take action with the needs of the group, and adapts their role in a fitting way for the unique collaboration (London et al., 2012).

Additionally, sense making is seen as an important strategy in executing the role of facilitator. This is reflected in all LCs and is used to establish openness to other perspectives and balance the experimentation of members with analyzing what happened in the collaboration (London et al., 2012). The dialogical moves show that facilitators execute this strategy by requesting information, opinions or clarifications of members. This indicates that facilitators negotiate meaning and questioning while trying to make sense of information (Bjuland & Helgevold, 2018; Warwick et al., 2016). These results align with studies of Bovens et al. (2022) and Van Rees et al. (2022) who argue that a facilitator helps members to navigate across barriers, as different points of views may interfere with working towards a solution. However, facilitator 2 and 3 used this strategy throughout the meeting of the LCs, whereas facilitator 1 only used this in the first couple of meetings. This might be explained by facilitator 1 focusing on the progress of the group instead of the process, showing a stronger tendency toward purposeful action than toward sense making. This is supported by research who suggests that LCs are complex learning environments where high involvement of members is required in order to make the collaboration work (Gould et al., 1999; Huxham & Vangen, 2000), and the level of engagement depends on members' motivation, current knowledge, the capacity for adapting new knowledge and their attention span (Wittrock, 1991). It can be explained as facilitator 2 and 3 recognizing the need to apply this strategy throughout the LC, while facilitator 1 might experience a higher level of member engagement, and therefore does not require the same extent of using this strategy compared to the other facilitators. Another explanation might be that there are factors hindering the communication in the LCs of facilitator 2 and 3, and less in the LC of facilitator 1. As sense

making is defined as the strategy to trying to create openness to others' viewpoints, it might be that there is a lack of common knowledge base (Grimm et al., 2024), which might lead to more misunderstandings in the LCs of facilitator 2 and 3.

Another remarkable result is the low frequency of use of the strategy goal setting. Facilitator 1 limitedly shows this strategy, compared to facilitator 2 and 3. The low frequencies are remarkable, because facilitators are trained to set joint goals together with members (Endedijk et al., 2019), and a professional learning environment consists of fostering an environment in which members can work together on goals (Bovens et al., 2022; Torosyan & Ortquist-Ahrens, 2009; Corporaal et al., 2021).

This study showed that the facilitator was steering towards an outcome, but did not help the group set goals, as the facilitator believed that the collaboration is most successful when members establish their own learning process. This statement is supported by studies of Corporaal et al. (2021) and Kilpatrick et al. (2012), who both emphasise the importance of members establishing their own learning process and develop more when doing so. Additionally, the studies of Bjuland & Helgevold, (2018) and Warwick et al. (2016) describe the role of the facilitator as a knowledgeable other who raises questions, adds new perspectives and is a co-researcher. This does not include setting goals together with members, as it is more focused on other strategies such as purposeful action and sense making. Therefore, it might be that the definition of the facilitator is not the same in all studies and has to be investigated more. This study shows that the role of the facilitator focuses on creating a safe and respectful environment that builds a common ground and focuses on equal participation in order to establish a productive dialogue.

6.1 Implications

This study contributes to research on collaborations in LCs as a form of interorganizational collaboration, provides insights into the balancing act of the facilitators' role, and serves as a mechanism to encourage collaborations aimed at solving overarching societal challenges. A key theoretical implication is that the leadership balancing strategies of London et al. (2012) and dialogical- and supportive moves of Bjuland & Helgevold (2018) and Warwick et al. (2016) currently overlook the influence of group dynamics and the specific learning stages of the LC and its members. Given that groups are dynamic, and the composition of members influences the approach of facilitators, these approaches may need to be expanded to examine the differences in the dynamics of groups, the learning stages that the LC has and the role of the facilitators. This could result in more in-depth knowledge on the role of the facilitator during the different stages of group settings.

However, the results of this study also provide practical insights into how facilitators utilize their role, showing that they adapt their approach based on group dynamics rather than employing a standardized approach. The results suggest that facilitators who focus on balancing purposeful action and sensemaking by providing evidence or reasoning and requesting information, opinion, or clarification, enhance the most productive collaboration. Additionally, it shows that the approach that facilitators use depends on various aspects, such as the level of engagement and common ground that the involved members have with each other. These findings are valuable for collaborative groups, facilitators, and training programs for facilitators. Given that the facilitators in this study received training before assisting an LC, this research could contribute to their professional development by providing specific case studies. These case studies could help facilitators approach their role in diverse ways, highlighting the importance of managing secondary elements, such as resistance or group dynamics. This could contribute to the development of facilitators' context-dependent skills, making them more aware of the dynamics and the learning stages, and therefore, able to react to that. Facilitators will be able to respond quicker or adjust their approaches, which could influence the use of certain leadership balancing strategies and certain dialogical- and supportive moves and help the process of the LC and stimulate a productive collaboration.

6.2 Limitations

Even though the study generated extensive insights in particular cases which helps with exploring the behaviors and strategies of the dynamic role of a facilitator, the limitations of this method are the small sample size, the sampling approach, and the interpretation of the observations.

First, the small sample size may interfere with the ability to generalize the findings to a broader perspective of facilitators and LCs. Additionally, the purposive sampling approach could limit the generalizability of the findings, as the facilitators may not represent all facilitators, especially due to the focus on their approaches and characteristics in their way of working. Furthermore, the quality of the recordings used in the non-participant observations, especially the low quality of the recordings of case 1, may have influenced the researcher's interpretations and could have affected the accuracy of the coding process. Additionally, case 1 was coded by one researcher, while other cases were coded by multiple researchers. This may have influenced the consistency and reliability of the process, as inter-coder agreement could not be established and may have created biases in the coding process of case 1. Moreover, due to the small sample size and low expected frequencies, the statistical power of the results of case 1 was limited, making it difficult to use the chi-square and standardized residuals to establish statistical significance. Finally, this study did not account for facilitators'

prior experiences or expertise, which may have affected their role and approaches. Future longitudinal research could provide more in-depth research on the role of the facilitator, considering factors such as experience, group composition and facilitators' approaches over time or in specific phases of the LC.

6.3 Future research

The results of this study provide valuable insights into the most important association between dialogical- and supportive moves and leadership balancing strategies as how facilitators shape their role. This study provides a foundation for future studies to dive deeper into the dynamic process of LCs and facilitators across different contexts. Future studies could focus on various stages within LCs, examining how these stages influence members' ability to have a productive collaboration and what specific role the facilitator could play at each stage. Moreover, future research could examine other key aspects of LCs, such as whether the role of the facilitator differs in challenge- or shared based LCs, or how group size influences the role of a facilitator. Additionally, mixed method studies can add to this research by observing the facilitators' behavior and including members opinions in the study. This would provide insights into how members of the LC see the role of the facilitator, and if and to what extent that role changes over time. Furthermore, larger sample sizes, the use of more case studies and longitudinal study could help with gathering more in-depth information on the context-dependent aspects of the role, such as different sectors, group size, compositions of members.

Furthermore, this study can be implemented in practice by complementing the current training course for facilitators. The results show the importance of having the skill to build common ground, by providing evidence or reasoning, and stimulating taking action as well as taking time for reflection. By implementing this or focusing more on these skills, facilitators could feel more confident using these skills during their role in the future. In conclusion, this research provides a deeper understanding of facilitator's role in assisting LCs as a form of interorganizational collaboration.

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8 Appendices

Appendix A

The interviewed facilitators, their LCs and the composition of members		
Facilitator 1	LC A: Installation company	1 mechanic 1 HR recruiter 1 team leader of prefabrication 1 team leader general 1 project administrator 1 team leader of management services
Facilitator 2	LC B: Installation engineering company	1 electrician/plumber 1 teacher of electrical engineering 1 coach 1 first service and maintenance technician 1 electrical cost analyst
	LC C: Security and digitalization LC * three companies involved	Property and real estate company: 1 manager 1 young talent 1 L&D consultant Insurance company 1 L&D consultant/young talent 1 team manager 1 L&D consultant Taxes company 2 young talents 1 team leader 1 L&D specialist
	LC D: Secondary school	2 teachers 2 students 2 individuals of different installation companies 1 contract/client
	LC E: Educational centre	2 teachers of different courses 5 students
Facilitator 3	LC F: Installation company	1 warehouse manager

		1 financial administrator 1 maintenance technician 1 administrative service employee 1 construction planner 1 teacher of university of applied science
	LC G: Installation company	2 contract managers 1 service desk employee 1 project manager 1 construction planner 1 manager 1 service manager 1 advisor and cost estimator 1 sales employee
	LC H: Installation company	1 procurement officer 1 project manager 1 service desk employee 1 site coordinator 1 mechanic 1 project manager service 1 employee of financial administration

Composition of interviewed facilitators and the discussed LCs		
Facilitator 1	LC A: Installation company	1 mechanic 1 HR recruiter 1 team leader of prefabrication 1 team leader general 1 project administrator 1 team leader of management services
Facilitator 2	LC B: Installation engineering company	1 electrician/plumber 1 teacher of electrical engineering 1 coach 1 first service and maintenance technician 1 electrical cost analyst
	LC C: Security and digitalization LC * three companies involved	Property and real estate company: 1 manager 1 young talent 1 L&D consultant Insurance company 1 L&D consultant/young talent 1 team manager 1 L&D consultant Taxes company 2 young talents 1 team leader 1 L&D specialist
	LC D: Secondary school	2 teachers 2 students 2 individuals of different installation companies 1 contract/client
	LC E: Educational centre	2 teachers of different courses 5 students
Facilitator 3	LC F: Installation company	1 warehouse manager 1 financial administrator 1 maintenance technician

		1 administrative service employee 1 construction planner 1 teacher of university of applied science
	LC G: Installation company	2 contract managers 1 service desk employee 1 project manager 1 construction planner 1 manager 1 service manager 1 advisor and cost estimator 1 sales employee
	LC H: Installation company	1 procurement officer 1 project manager 1 service desk employee 1 site coordinator 1 mechanic 1 project manager service 1 employee of financial administration

Appendix B

Codebook for semi-structured expert interviews with facilitators			
Theme	Code	Description	Examples of study of Grimm et al. (2024), facilitators interviews and interpretation of study by London et al. (2012)
Facilitators' role	Role description	The role as a facilitator described by the interviewed facilitator.	<p>“A facilitator supports a group in achieving a learning moment or outcome, in a way that has practical relevance for them”.</p> <p>“I perceive the role as securing a feeling of safety within the group”.</p>
	Expectations	The expectations that facilitators had before starting their duties as a facilitator.	“I think I approached it with an open mind, but I did have the intention of wanting to get the group moving, and that was also my expectation”.
	Preparations	The preparations that facilitators did before starting their duties as a facilitator.	“You are informed about the goal of the LC, so you have a general idea of where you are heading. From there, you start considering: what tools can I use to answer these specific questions as efficiently as possible? So yes, I think about a method or approach, but it can still change on the spot”.
	Responsibilities and activities	The activities that the interviewed facilitators	“I believe it is my responsibility to ensure that the people at

		feel as their supporting role in the LC.	the table get to work, starting by simply listening and seeing who has something to share. It's relatively easy to get started, because you can ask: where is everyone in the process, and what exactly are you working on?"
	Impediments	The impediments that facilitators encounter in their work within LCs.	"Generally, things progress very slowly, and sometimes you need a content-focused leader to guide the group. That is not me, I am an external facilitator of the process. Part of my job is to nudge the group towards making a decision, but this decision can't be made by me".
Challenges that hinder communication or collaboration	Case 1: Lack of common language register	Members do not use the same terminology or style in communication.	"We changed our narrative (...) When we started to use their language, to look at the financial side and move away from our original argument (...) then the businesses understood (...) You have to speak numbers (...)"
	Case 2: Lack of common knowledge base	Absence of a common ground of knowledge or reference.	"(...) First of all, I think they're lazy. You know? There's an element of laziness and an element of just simple incompetence".

			<p>“You have different levels of knowledge, different levels on where you stand from the beginning. It’s hard (...) We need to be in line with one another”</p>
	Case 3: Lack of common meaning system	Misinterpretations of concepts, situations or members having different values in way of working or living.	<p>“Companies shouldn’t do this (continue with their business as usual) because it’s bad for the animals and the plants, and you (companies) are going to destroy the planet if you (companies) continue the way you (they) operate now”</p>
Leadership balancing strategies	Goal setting	<p>Balancing members’ vested interests with establishing a shared vision and shared goals. This contributes to the members’ commitment and understanding of each other’s background and perspective.</p> <p>Members assimilate a shared understanding of their diverse backgrounds and interest through conceptualizing their own identities and reflecting and verifying others’ views of them.</p>	<p>Stimulating setting shared goals. Focusing on shared interests and ensuring the creation of goals that each member endorses and is committed to pursuing</p>
	Sense making	Balancing the group members’ exploring and	Developing a clear understanding of the direction

	<p>experimenting with their analyzing and conceptualizing what they learned. This contributes to members' openness to new ideas and to each other's viewpoints. Members converge in their perceptions of goals and tasks as they explore and conceptualize.</p>	<p>of the group: defining the areas of focus, identifying themes that are of common interest, and determining the insights we aim to achieve</p>
Involvement	<p>Balancing the leader's need to control and direct the group with empowering group members to shape the group's direction and process. This contributes to members' trust in each other and the leader and to the development of a shared memory for constructive transactions that they can draw on as situations change. Members accommodate their exploration and experimentation with the concrete experiences directed by the leader.</p>	<p>Stimulating accountability, ownership and commitment within the LC</p>
Purposeful action	<p>Balancing the leader's and member's desire to take action with time for</p>	<p>Ensuring that the group takes actions that align with and</p>

<p>reflection. This contributes to members' sense of collective efficacy. Members diverge from prior understandings as they reflect on (make sense of) their experience in the group.</p>	<p>support the overall objectives. Reflecting on the process.</p>
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