Beyond the Sum of Its Parts

A qualitative study exploring the prerequisites for teams to benefit from a team development intervention aimed at cultivating collective intelligence

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Abstract

As teamwork becomes increasingly central to modern organizations, cultivating Collective Intelligence (CI) has emerged as a strategic priority. CI is a group's general ability to perform a wide range of cognitive tasks by effectively integrating individual knowledge, coordinating actions, and adapting to complex challenges. Team Development Interventions (TDIs), such as CI-Boost, are designed to enhance CI. Yet their impact varies widely across teams. This thesis addresses a critical gap in understanding why such variance occurs by exploring how structural conditions, as prerequisites, shape teams' perceived ability to benefit from TDIs. Drawing on Hackman's Team Effectiveness Model (HTEM), the study applies a qualitative design based on 18 semi-structured interviews with Swedish professionals across diverse roles and organizations. The findings reveal that while structural factors such as interdependence, clear goals, supportive norms, and leadership matter, they are effective once accompanied by motivational readiness, particularly a shared growth mindset. These insights challenge static models of team design and suggest that motivation acts as a catalyst that activates structural conditions. The study contributes to both theory and practice by offering a dynamic perspective on team readiness and actionable guidance for organizations and developers seeking to foster high-performing, CI-driven teams.

Keywords:
Collective Intelligence, Team Development Intervention, Team Debriefs, Structural Conditions, Hackman's Team Effectiveness Model

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Definitions

Collective Intelligence (CI)	A group's general ability to perform a wide range of cognitive tasks by effectively integrating individual knowledge, coordinating actions, and adapting to complex challenges
Team Development Intervention (TDI)	Systematic activities aimed at improving requisite team competencies, processes, and overall effectiveness
Prerequisites	In this study prerequisites, inputs, and preconditions are used interchangeably and refer to the conditions present in a team prior to the intervention
Structural conditions	The formal and organizational elements in place in a team. Here, defined as the five enabling conditions in Hackman's Team Effectiveness Model: A Real Team, Compelling Direction, Enabling Structure, Supportive Context, and Expert Coaching
CI-Boost	A digital TDI designed to cultivate CI
Structural readiness	Presence of foundational preconditions that support meaningful participation in the intervention process.
Motivational readiness	Teams' willingness, perceived relevance, and openness to engage

1. Introduction

1.1 Background

"The whole is other than the sum of its parts." - Kurt Koffka

Koffka's quote is often misrepresented as *"The whole is greater than the sum of its parts",* a subtle yet crucial distinction that offers insight into the nature of teamwork. Teamwork is not merely the sum of individual efforts; rather, it is fundamentally different, sometimes leading to superior results, and other times falling short of individual performance.

Modern workplaces heavily rely on collaboration, with employees spending nearly 80% of their time working in teams (Cross et al., 2016). However, the mere existence of a team-based structure does not inherently lead to better outcomes. In some cases, teamwork can be less effective than individual effort (Lyubovnikova et al., 2015). Research suggests that teams often fail to outperform their most capable individual members in creative and complex tasks, and in simpler tasks, they rarely exceed the performance of the second-best individual. Yet, when collaboration is effectively structured, teams can achieve results beyond what any individual could accomplish alone (Runsten & Werr, 2023).

A key factor that explains teams' performance is its Collective Intelligence (CI), a group's general ability to perform a wide range of cognitive tasks by effectively integrating individual knowledge, coordinating actions, and adapting to complex challenges (Woolley et al., 2010; Runsten, 2017). Research demonstrates a strong correlation between teams' CI and success across key metrics, including performance, well-being, customer satisfaction, and job satisfaction. Conversely, low CI is associated with higher error rates, workplace injuries, perceived stress, and burnout (Salas et al, 2008; Klein et al, 2009; DeChurch & Mesmer-Magnus, 2010; Tannenbaum & Cerasauli, 2013). These findings highlight the critical role of CI in determining whether teamwork becomes an asset or a liability.

To foster CI in teams, organizations have increasingly turned to Team Development Interventions (TDIs). TDIs are systematic activities aimed at improving requisite team competencies, processes, and overall effectiveness (Lacerenza et al., 2018). TDIs hold significant promise for enhancing workplace collaboration, well-being, and performance (Tannenbaum & Cerasoli, 2013; Runsten & Werr, 2020). However, despite their growing

popularity, TDIs do not work equally well for all teams. Some interventions result in substantial performance gains, while others yield no measurable improvements or even lead to performance declines (Shuffler et al., 2018; Runsten & Werr, 2020).

This inconsistency presents serious concerns for organizations investing time, money, and trust into development efforts that may not deliver the intended results. Without insight into the preconditions that enable or hinder teams' ability to benefit from TDIs, organizations risk implementing interventions in contexts lacking the foundations for success. Such failures not only waste resources but can also reinforce dysfunctional dynamics and erode trust in future development initiatives (Shuffler et al., 2011).

Current research on TDIs has primarily focused on processes (how TDIs should be designed) and outputs (their measurable impact), while largely neglecting the inputs (the conditions in place before implementation) (Lacerenza et al., 2018). Some studies highlight psychological safety as a crucial prerequisite for TDIs to be effective (Arafeh et al., 2010; Flanagan, 2008), yet others argue that it may not be the most critical determinant (Runsten & Werr, 2020). Moreover, framing psychological safety as a prerequisite presents a paradox, as TDIs themselves are often designed to foster this very capability, prompting the need to investigate alternative preconditions.

This study seeks to address this gap by systematically examining team inputs in the form of structural conditions that contribute to the effectiveness of TDIs. Structural conditions refer to the formal and organizational elements that are already established before the intervention takes place. They shape the basic framework within which a team operates, including how the team is composed, how goals are defined, how work and collaboration are organized, and what support and leadership are available. This study conceptualizes structural conditions following Hackman's (2002) model of team effectiveness, and shifts the focus from how TDIs should be designed (processes) and what they achieve (outputs), to the preconditions that must be in place before implementation (inputs).

Beyond contributing to the academic literature, this study offers practical value for organizations striving to enhance teamwork. By identifying the key preconditions that drive successful TDIs, this study aims to bridge theoretical insights with actionable strategies. In doing so, it aims to contribute to a future where teams consistently achieve outcomes that

transcend individual contributions, ensuring that the whole is not merely *other* than the sum of its parts but truly *greater* than it.

1.2 Research Aim and Research Question

Accordingly, the aim of this study is to explore how structural conditions shape teams' perceived ability to benefit from a TDI aimed at cultivating CI. By identifying the structural prerequisites for successful TDIs, the study seeks to provide organizations with actionable strategies to foster more resilient, high-performing teams and contribute to more efficient, targeted, and sustainable team development efforts. To address this aim, the study is guided by the following research question:

> *How do structural conditions shape teams' perceived ability to cultivate collective intelligence through a team development intervention?*

1.3 Scope

The study focuses exclusively on teams in Sweden that have participated in the same TDI, CIBoost. While this enhances comparability it limits variation, affecting the generalizability of the findings to other TDIs and geographical contexts. Moreover, the study focuses on perceptions rather than objective measures of performance. This is consistent with the research focus on how structural conditions are experienced, but limits the ability to make direct claims about objective performance outcomes.

1.4 CI-Boost

To explore how structural conditions shape teams' perceived ability to benefit from TDIs, this study focuses on CI-Boost. CI-Boost is a digital TDI platform designed to facilitate team development by enabling structured team debriefs. Dr. Philip Runsten and Professor Andreas Werr research on CI at Stockholm School of Economics underpins the platform, which aims to strengthen team collaboration and knowledge integration. CI-Boost is built on the CI-model, which emphasizes four key capabilities essential for effective teamwork:

Representation: A shared understanding of goals, roles, and tasks for coordination

Reflection: Thinking and problem-solving collectively through structured discussions

Relation: The ability to foster trust and psychological safety for open communication

Integration: Individual responsibility and adaptability for team success.

The study's participants have all completed the CI-module in CI-Boost, consisting of eight sessions, each focused on cultivating one or more of the four capabilities. Each session follows a unique theme and includes two parts, individual preparation and group discussions:

Individual preparation: Participants engage with short texts and videos to learn about the topic. They then respond anonymously to program-generated questions.

Group discussions: Anonymous responses are revealed and discussed within the group, allowing for deeper insights and reflection. Additional questions are also answered.

Among the various TDIs available, CI-Boost offers a distinct approach by combining evidence-based practices from team debriefing research with a specific focus on enhancing CI capabilities. Despite this, research on CI-Boost showed average performance improvements of 21.5% in observer-assessed teamwork behaviors (Runsten & Werr, 2020), a result consistent with a previous meta study on the effectiveness of structured debriefings (Tannenbaum & Cerasoli, 2013). As such, while the findings of this study are contextualized within the use of a single intervention, CI-Boost provides an appropriate and research-based case to explore how structural conditions influence teams' perceived ability to benefit from a TDI.

2. Literature Review

This literature review examines academic research on three key areas relevant for the research question; *1) Structural* Conditions *in Teamwork, 2) CI in Teamwork* and *3) TDIs*. This approach highlights key insights and unresolved issues, leading to the identified knowledge gap.

2.1 Structural Conditions in Teamwork

Prior to the 2000s, research on teamwork predominantly conceptualized structural conditions as fixed and stable attributes. Formal hierarchies, stable roles, and predefined decision-making frameworks were viewed as essential for fostering effective team performance (Hackman, 2002; Vinokur-Kaplan, 1995; Devine et al. 1999). Hackman (2002) offered a foundational perspective in this domain by identifying five key structural enablers of team effectiveness: real team, compelling direction, enabling structure, supportive context, and expert coaching. These conditions laid the groundwork for understanding how team design influences performance and member well-being. Empirical studies during this period reinforced this fixed-structure perspective. Vinokur-Kaplan (1995) applied Hackman's model in psychiatric hospital teams, finding that stable leadership and clearly defined roles enhanced cohesion and member satisfaction. Similarly, Devine et al. (1999) conducted a survey-based quantitative study of U.S. organizations, finding that most team structures were within formal hierarchies and centralized decision-making frameworks, with team effectiveness largely dependent on these structural conditions.

By the 2000s, researchers increasingly recognized that team structures are not static but evolve through social interaction, environmental demands, and iterative learning. Moon et al. (2004) demonstrated that team reconfiguration is asymmetrical, with some structural changes more feasible than others, emphasizing adaptability as a key determinant of effectiveness. Whitworth & Biddle (2007) extended this by asserting agile teams as complex adaptive systems, where team structures evolve dynamically through ongoing team interactions and iterative processes. In parallel, broader models of team functioning evolved from linear Input-Process-Outcome (IPO) frameworks (McGrath, 1964) to Input-Mediator-Outcome (IMO) frameworks that better capture the recursive, emergent nature of team dynamics (Ilgen et al., 2005).

This evolution in thinking has shaped recent uses of Hackman's model. Rather than viewing structural conditions as fixed inputs, contemporary studies highlight how they function dynamically to shape team functioning and readiness. For example, Kanike & Xia (2022) applied Hackman's framework to quantitatively study virtual software teams during the COVID-19 pandemic, assessing performance enablers in remote contexts. Similarly, Mineiro et al. (2024) combined Hackman's framework with the Big Five and IPO model to quantitatively explore how personality diversity, especially emotional stability, impacts communication and team satisfaction. These findings affirm that structures like team composition shape the interpersonal dynamics critical to effectiveness.

Moreover, recent research shows that structural conditions influence not only organizational coordination but also the cognitive and social dynamics enabling CI. Woolley et al. (2022) found that stable team structures promote synchronized communication and collective attention, whereas unstable hierarchies disrupt coordination.

In summary, while structural conditions provide a necessary foundation for team functioning (Hackman, 2002; Kanike & Xia, 2022; Mineiro et al., 2024), their impact ultimately unfolds through emergent cognitive and social processes within teams (Moon et al., 2004; Whitworth & Biddle, 2007; Woolley et al., 2022). This evolution in the literature sets the stage for a closer examination of CI (Woolley et al., 2010; Janssens et al., 2022), focusing on how teams integrate knowledge, coordinate actions, and adaptively respond to complex challenges.

2.2 Collective Intelligence in Teamwork

As organizations navigate increasing complexity, the need for effective knowledge integration within teams has elevated the concept of CI as a cornerstone of team performance and innovation. Early studies, such as Wegner's (1987) concept of transactive memory systems and Weick's (1993) idea of collective mind, laid the foundation for understanding how shared memory and interrelating behaviors contribute to collective problem-solving in teams. As the field has matured, however, scholars have developed multiple ways of conceptualizing CI (Runsten 2017; Janssens et al. 2022; Rowe et al., 2024).

Runsten (2017) identifies nine distinct definitions in the literature, encompassing perspectives such as collective problem-solving, decision-making ability, learning, adaptability, and coordination. This range illustrates that CI is a multifaceted and context-dependent construct,

shaped by both social and structural dynamics. In this study, CI is understood as the team's ability to collectively interpret situations, integrate knowledge, and coordinate actions in an adaptive way (Woolley et al., 2010; Runsten, 2017). Rather than being the sum of individual intelligence, CI emerges from interaction patterns within teams where factors such as trust, shared mental models, psychological safety, and enabling structures shape a team's capacity to respond intelligently to complex and evolving challenges (Runsten, 2017).

Recent work by Janssens et al. (2022) has further refined the understanding of CI by highlighting its dynamic and time-sensitive nature, emphasizing that CI develops continuously through real-time team interactions. Teams that engage in reflective learning and adaptive collaboration, by adjusting their interactions and communication strategies based on feedback, are more likely to sustain high levels of CI over time (Janssens et al. 2022).

The practical applications of CI in high-performing teams have been explored through an examination of its role as a key driver of sustained team success (Rowe et al., 2024). This study found that high-performing teams (1) exhibit high CI, and (2) develop it through continuous knowledge integration and adaptive team processes, in addition to the importance of CI in both short-term task success and long-term team effectiveness. Persistent challenges remain, however, in measuring and cultivating CI systematically, highlighting the need for TDIs like reflective learning and debriefing sessions, which can enhance team collaboration and problem-solving capabilities (Rowe et al., 2024).

2.3 Team Development Interventions

Research has consistently confirmed that teams can improve through structured development efforts, including team training (Salas et al., 2008), team building (Klein et al., 2009), and team debriefs (Tannenbaum & Cerasoli, 2013). Among these, team debriefing has been identified as one of the most effective interventions, with meta-analyses showing performance increases of 20-25% in team task performance and team process effectiveness (Tannenbaum & Cerasoli, 2013). Debriefing involves structured team reflection on past behaviors to enhance future performance. Originally applied in military settings, debriefing has become increasingly prevalent in non-military organizations (Zakay et al., 2004).

Debriefings, however, can vary in structure. A quantitative study by Boet et al. (2013) compared instructor-led and within-team self-guided debriefings in simulated surgical crises, finding no significant difference in team performance improvements between the two formats. In 2020, Runsten and Werr's quasi-experimental field study on CI-Boost offered insights in how a digital self-guided debriefing tool compares to other debriefing methods. Their findings showed that the intervention led to an average performance improvement of 21.5% in observer-assessed teamwork behaviors, which aligns with previous research on guided and non digital tools (Tannenbaum & Cerasoli, 2013).

However studies have revealed significant variations between teams (Runsten & Werr, 2020; Shuffler, 2018). For example, Runsten and Werr (2020) found that low-performing teams improved the most, likely due to greater developmental potential. High-performing teams also developed but at an average rate. In contrast, the "second best" teams, initially strong performers, often stagnated or even declined, a pattern they suggest may be linked to an overestimation of their own capabilities and weaker engagement with the intervention. Nonetheless, they emphasize that the reasons for this pattern remain unclear and call for further investigation.

The factors underlying such variations in TDI outcomes have, to the authors' knowledge, received limited attention in the academic literature. While some scholars position psychological safety, defined as a shared belief that the team is safe for interpersonal risk-taking (Edmondson, 1999), as a critical precondition for effective interventions (Arafeh et al., 2010; Flanagan, 2008), Runsten and Werr's (2020) findings complicate this view. Their observation that low-performing teams, despite initially low psychological safety, showed the greatest improvement highlights the need for further research into alternative explanatory factors.

2.4 Knowledge Gap

While prior studies have explored structural enablers of team effectiveness (Hackman, 2002) and its implications of CI (Runsten & Werr, 2017; Janssens et al., 2022), as well as the impact of TDIs on team performance (Lacerenza et al., 2018), there remains a lack of integrated research examining how the structural conditions influence the effectiveness of TDIs in fostering CI. Furthermore, existing research on these three components primarily adopts a quantitative approach, emphasizing outcome-based assessments rather than exploring the

underlying mechanisms that connect them (Vinokur-Kaplan, 1995; Devine et al., 1999; Runsten, 2017; Runsten & Werr, 2020). This predominant focus on measurable results overlooks the nuanced and context-dependent interactions between structural conditions, CI, and TDIs.

Consequently, there remains a significant gap in literature for qualitative research examining the interrelational dynamics among these elements, as illustrated in Figure 2.4. Addressing this gap, this study employs a qualitative research approach to explore how structural prerequisites enable teams to benefit from a TDI aimed at cultivating CI.

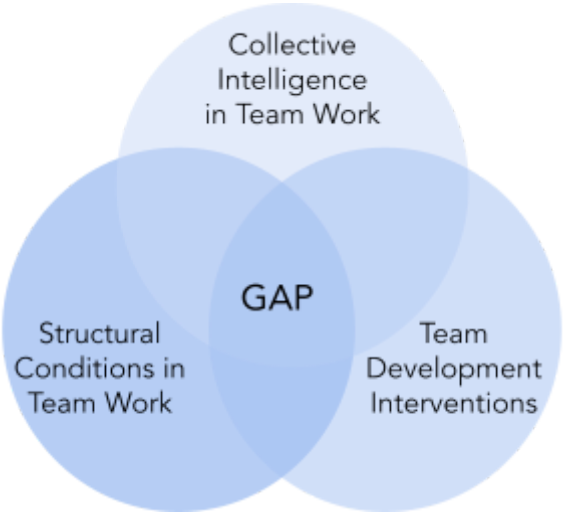


Figure 2.4: *Outlined Knowledge Gap* (Bergström, Wilfordson, 2025)

3. Theoretical Framework

This study applies Hackman's Team Effectiveness Model (HTEM) as a theoretical framework (Hackman, 2002). In the following section, the model is first described, followed by a discussion of the benefits and drawbacks of applying it to address the research question.

3.1 Hackman's Team Effectiveness Model

HTEM was originally developed to explain the structural conditions that enable team performance. The model identifies five enabling conditions: a Real Team, Compelling Direction, Enabling Structure, Supportive Context, and Expert Coaching, which together create the foundation for effective team functioning (Hackman, 2002). HTEM has for example been used to quantitatively assess performance based on how team personality diversity shapes team effectiveness and in virtual software teams contexts (Kanike & Xia, 2022; Mineiro et al, 2024).

Instead of using the five enabling conditions to assess team effectiveness as an outcome, this study explores how these structural conditions may serve as inputs that shape a team's capacity to engage with a TDI. In this context, the model is used to assess *structural readiness*, understood as the presence of foundational preconditions that support meaningful participation in the intervention process. While this is a novel application of the model, it offers a theoretically grounded lens for examining the preconditions that may influence intervention engagement.

This shift challenges some of the model's original assumptions. Crucially, the study does not assume the conditions as indicators of effectiveness or predictors of success. Instead, it examines how participants perceive and interpret the conditions as shaping their engagement. By using the model as an interpretive lens grounded in participant experience, the study avoids circular reasoning and preserves its exploratory aim.

To clarify how the model is applied in this context, the five enabling conditions are presented below. Each condition is described based on Hackman's (2002) original framework, while also highlighting its conceptual relevance for understanding structural readiness in relation to TDIs.

A Real Team

A real team is defined by clear boundaries, stable membership, and interdependence among team members. According to Hackman (2002), these elements create the foundation for collaboration by ensuring that team members know who belongs to the team, have sustained time together, and depend on one another to achieve shared goals. As a precondition for development, this suggests that teams need to perceive themselves as cohesive units to engage meaningfully with interventions.

Compelling Direction

This condition refers to the presence of a clear, challenging, and meaningful purpose that energizes and aligns the team (Hackman, 2002). When direction is perceived as well-defined and motivating, it can focus the team's attention and generate the commitment needed to engage in developmental activities. Within the context of structural readiness, compelling direction may function as a psychological and motivational resource that supports intervention engagement.

Enabling Structure

An enabling structure involves the team composition and norms that support effective collaboration (Hackman, 2002). These elements create clarity around how work is organized, how team members interact, and how interpersonal qualities are enacted within the team. In this study's context, this condition relates to whether teams are organized in a way that facilitates communication, coordination, and constructive participation in development processes.

Supportive Context

This condition concerns the resources, information, educational and rewards systems available to the team, along with organizational support systems (Hackman, 2002). In this study's context, supportive context is interpreted as the degree to which teams have access to the tools, time, and recognition necessary to participate effectively in the intervention.

Expert Coaching

Expert coaching, as defined by Hackman (2002), is direct interaction from a leader that enhances team effectiveness by addressing effort, strategy, and knowledge use at key moments in a team's work cycle. Expert coaching strengthens group processes by motivating

at the start, consulting at the midpoint, and educating at the end, to reduce process losses and promote collective gains. It is the start that this thesis will primarily focus on.

3.2 Theory Discussion

Applying HTEM to assess structural readiness introduces the benefit of a structured framework that allows for a systematic assessment of the foundational elements that may enable or hinder teams to benefit from TDIs. Moreover, the model's foundation in Input-Output logic supports the coherence of this application. Since HTEM emphasizes how structural inputs shape outcomes, shifting the focus to assess structural readiness as an input to intervention engagement remains theoretically consistent.

However, applying Hackman's model in this context also presents limitations. Shifting the model's outcome from effectiveness to structural readiness introduces the risk of conceptual drift. In addition, the absence of empirical precedent for this application limits opportunities for cross-study comparison.

To address these challenges, the study mitigates conceptual drift by closely adhering to the model's original definitions and using the conditions as sensitizing concepts, that is, as guiding lenses for interpretation rather than fixed criteria for evaluation. While the lack of empirical precedent cannot be fully resolved, this interpretive use is transparently positioned as an exploratory contribution that invites future empirical comparison.

4. Research Methodology

4.1 Research Philosophy and Approach

4.1.1 Research Paradigm

This study adopts an interpretivist paradigm, which sees reality as socially constructed and continuously shaped through individuals' interactions and interpretations (Saunders et al., 2023). This paradigm is well-suited given the study's aim to explore how structural conditions shape teams' perceived ability to benefit from a TDI aimed at cultivating CI. By prioritizing participants' lived experiences, it enables a deeper understanding of how individuals interpret, respond to, and make meaning of structural conditions.

4.1.2 Research Approach

The study further adopts an abductive approach, combining elements of both deduction and induction (Saunders et al., 2023). This flexibility is essential given the study's exploratory nature, as participants may surface themes outside the initial theoretical framework. The abductive approach enables a continuous interplay between theory and empirical insights, facilitating a more nuanced understanding of how team members perceive the influence of structural conditions on their ability to benefit from a TDI.

4.2 Research Design

4.2.1 Qualitative Research Design

A qualitative research design was evaluated most appropriate to explore team members' subjective experiences of structural conditions. While alternative designs, such as quantitative surveys were considered, they were less aligned with the study's aims. A quantitative survey would have relied on predefined questions and fixed response categories (Saunders et al., 2023). This would have limited the depth of insight into participants' interpretations and reduced the opportunity to capture unanticipated themes, both of which were important given the study's interpretivist foundation and abductive approach (Saunders et al., 2023).

In contrast, the qualitative approach offered the flexibility needed to explore how participants interpret complex, context-specific experiences and supported the iterative reasoning central

to connecting emerging empirical insights with theory (Saunders et al., 2023). This depth, however, came at the trade-off of limited generalizability due to the smaller, context-bound sample (Saunders et al., 2023), and the potential influence of subjective participants' and authors' interpretations. To address the latter, reflexive practices were applied to reduce bias.

4.2.2 Semi-Structured Interviews

Data collection was guided by semi-structured interviews. This approach combines structure with flexibility by following a predefined interview-guide while allowing room to adapt follow-up questions based on participants' responses (Saunders et al., 2023). The interview-guide, developed in alignment with HTEM (Appendix 1), ensured consistency across interviews while allowing new themes to emerge. This design enabled key topics related to structural conditions to be addressed, while providing space for organic exploration of participant insights.

The flexibility of semi-structured interviews, however, introduces certain limitations. Follow-up questions may vary between participants, making direct comparisons across interviews more challenging. This limitation was addressed through template analysis, which enabled consistent coding and facilitated thematic comparison despite variations in questioning.

4.3 Data Collection

4.3.1 Sampling Strategy

The study combined purposeful and snowball sampling (Saunders et al., 2023). Purposeful sampling was used to ensure variation in perceived outcomes across teams, enabling comparative insight. Participants were identified in collaboration with a CI-Boost representative, with insight into the diversity of client team experiences. Moreover, snowball sampling expanded the participant pool, including multiple members from some teams.

In total, 20 individuals were contacted via email (Appendix 2), and 18 participated (Appendix 3): 11 via purposeful sampling and 7 via snowball referrals. The high participation rate helped reduce the risk of self-selection bias and supported the inclusion of varied perspectives.

The final sample included participants from diverse roles, organizational contexts, and demographics. This variation strengthened the contextual relevance of the findings and supported meaningful cross-case comparisons. However, as all participants were based in Sweden, transferability to other cultural contexts may be limited. Additionally, not all teams were represented by more than one participant, which constrained the ability to explore divergent intra-team perspectives in some cases.

4.3.2 Interview Process

Participants received the interview guide and a consent form in advance, outlining the study's purpose and ethical considerations (Appendix 4). Subsequently, interviews were scheduled with participants given the option to choose between in-person or digital formats. All opted for digital interviews, which were conducted individually via Microsoft Teams. This setup provided a confidential environment, free from group dynamics or peer influence. However, the digital format may have limited the observation of non-verbal cues (Saunders et al., 2023). To address this, field notes were taken during each interview to document contextual details such as tone and pauses.

Each interview was allocated 60 minutes, averaging 44 minutes. This allowed sufficient time to cover the interview-guide while also accommodating follow-up questions and participant-led insights. With participants' consent, all interviews were audio recorded and transcribed verbatim. Transcripts were then translated from Swedish to English. While efforts were made to preserve the original meaning, some nuances in language and tone may not have been fully captured. To mitigate this risk, translations were cross-checked against the original recordings to ensure they reflected participants' intended meaning as accurately as possible.

4.4 Template Analysis

The interviews were analyzed using reflexive Template Analysis, a structured yet flexible form of Thematic Analysis (King & Brooks, 2017). This approach was well suited to the study's interpretivist paradigm and abductive research approach, as it allowed the authors to begin with theory-informed codes while remaining open to emerging insights from the data.

The analysis began with familiarization with the transcripts through repeated reading by both authors. An initial coding template was developed based on a priori codes, codes derived from the study's theoretical framework (Saunders et al., 2023). These were organized into second-order themes and aggregate dimensions, providing a structured, theory-informed starting point.

To ensure that the analysis remained grounded in participants' lived experiences, in vivo codes were incorporated during the data immersion phase. These codes, derived directly from participants' language, were identified through repeated transcript readings. First-order themes were generated to capture salient patterns within each theoretical domain. These were first independently logged by the authors and then compared in joint sessions. Discrepancies in interpretation were addressed through reflexive discussion, which involved revisiting the raw data and questioning initial assumptions to ensure that the codes remained grounded in participants' language and intended meaning, while also reducing potential individual bias.

This iterative process resulted in a final coding structure that integrates theoretical and emergent insights. The final template (Figure 4.4) captures how structural conditions shaped participants' perceptions of the intervention as either enabling or constraining.

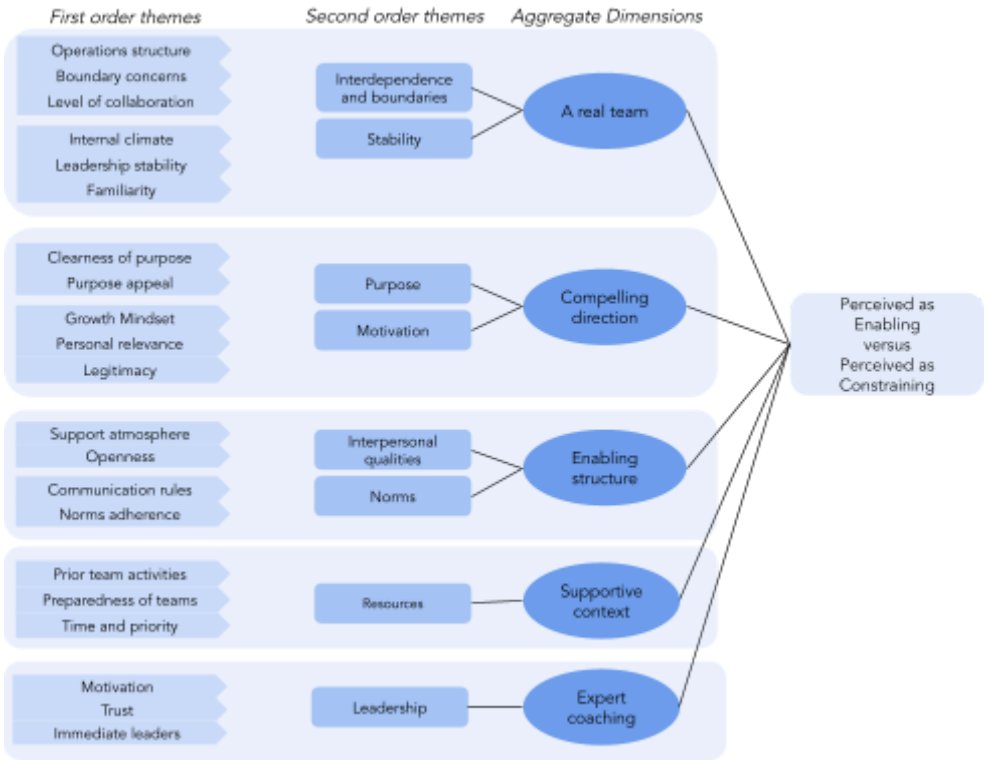


Figure 4.4: *Coding Template* (Bergström, Wilfordson, 2025)

4.5 Research quality

4.5.1 Rigor

Rigor was upheld through deliberate strategies. Purposeful and snowball sampling captured varied participant experiences, supporting credibility. A semi-structured interview guide ensured dependability by maintaining consistency across interviews while allowing space for in-depth, context-sensitive exploration.

All interviews were recorded, transcribed verbatim, and carefully translated with accuracy checks to preserve participants' intended meaning, thereby enhancing credibility and authenticity. Template analysis supported analytical rigor by combining theory-informed codes with codes grounded in participants' language, enabling both consistency and openness to emergent insights.

4.5.2 Reflexivity

Throughout the process, the authors actively reflected on their potential biases and how they might influence interpretation. A particular concern was the authors' own prior participation in the CI-Boost TDI, which, while providing valuable contextual insight, also risked shaping the analysis through personal familiarity. To address this, they began by explicitly articulating their preconceptions and kept a reflexive journal to support critical self-awareness during the analysis.

In combination with journaling, engaging in joint discussions after independently logging in vivo codes, and applying a structured approach to resolving discrepancies in interpretation all created opportunities to surface and critically examine potential bias. These strategies strengthened the credibility of the findings by supporting that the coding process remained grounded in participants' accounts rather than filtered through the authors' perspectives.

4.6 Ethical Considerations

To uphold ethical integrity, all interviewees signed a digital GDPR-compliant consent form, in accordance with the ethical guidelines of the Stockholm School of Economics. Participants were also given the opportunity to review and approve the quotations used in the final thesis, ensuring they were comfortable with how their contributions were represented. To protect

confidentiality and anonymity, no names or company identifiers are disclosed. All interview recordings, transcripts, and related materials will be permanently deleted upon completion of the thesis. Access to the data was restricted to the authors throughout the research process.

4.7 Usage of Artificial Intelligence

Artificial Intelligence (AI) tools were used selectively to support the research process, in accordance with ethical and responsible use guidelines, to ensure the integrity and originality of the study were preserved (Chetwynd, 2024).

Relevant academic sources were identified using *Elicit*, an AI-powered research assistant that generated article suggestions based on keyword input. While this supported a more efficient search process, all sources were manually evaluated for credibility and relevance to the study's objectives.

Further, *ChatGPT* was used to support the authors in refining clarity and structure, for example by suggesting alternative phrasings. Importantly, all content was independently written, critically reviewed, and edited by the authors to ensure originality and accuracy.

Lastly, *Klang AI* was used to transcribe interview recordings efficiently. All transcripts were manually reviewed and corrected to ensure accuracy and preserve the intended meaning of participants' responses.

5. Empirics

5.1 A Real Team

5.1.1 Interdependence and Boundaries

Participants described varying degrees of interdependence within their teams. In several cases, work was characterized by independence, with members focusing on their own responsibilities and showing limited interest in cross-collaboration. One participant noted: "*We were four individuals working in a group rather than a team […] Each of us worked in our own way, focusing on our respective areas"* (R13). The participant added that reluctance to engage across roles stemmed from concern that others *"would have opinions or interfere."*, which according to the participant, made it more difficult to engage fully with the CI-Boost activities that encouraged joint reflection and shared input.

Others echoed this view, describing a pre-existing structure in which individual contributions supported shared goals but remained functionally separate, which limited how collectively the team engaged with intervention: *"We were quite independent in our tasks, supporting the organization individually, but to some extent, we also worked together toward a shared goal"* (R12).

In contrast, some participants highlighted close collaboration and regular interaction. These teams described high levels of coordination and knowledge-sharing across boundaries: *"We often collaborate, working closely together […] Organizationally, we belong to the same group, […] so it was a natural division for us to do this work together."* (R10) The team's shared understanding of their collaborative structure appeared to enable deeper engagement with the CI-Boost sessions, which participants described as making the intervention more effective and relevant.

5.1.2 Stability

Participants described varying levels of team stability prior to the intervention. In some cases, internal tensions were seen as affecting openness and trust, which made it more difficult for members to speak freely or engage fully in the intervention. One participant noted, *"We have*

internal tensions within the group […] we didn't have an open atmosphere, which was clear when using CI-Boost" (R12).

Leadership continuity was also mentioned in relation to team stability. Some participants described challenges when managers held temporary positions, noting that shifting leadership made it harder to establish clear direction and follow through with the CI-Boost intervention. One interviewee shared,

> *"Our interim manager participated in the sessions, but we knew she would be replaced […] which wasn't exactly ideal. It might have been better to have a more stable setup with a manager who had already gotten to know the group beforehand"* (R13).

Experiences also varied depending on how established the team was. In newly formed teams, participants mentioned unfamiliarity and shifting dynamics. One participant explained, *"When we used CI-Boost, the division was new and the group dynamics was still very unstable which made it more challenging"* (R11).

In contrast, participants in long-standing teams described how familiarity supported trust and helped new members integrate. One participant noted, *"Two of them were completely new to me […] The other three I had worked with before, so I felt more comfortable with them […] we formed a fairly tight-knit team from the start"* (R16). Another added, *"Many in the group have worked together for a long time […] When I joined, it was easy to integrate"* (R10). This familiarity was described by interviewees as creating a supportive environment that made it easier to engage in the CI-Boost activities and share perspectives during the sessions.

5.2 Compelling Direction

5.2.1 Purpose

Participants described how having a shared understanding of the purpose prior to the intervention supported team cohesion during the sessions and was later described as contributing to clearer follow-through in team collaboration.

Moreover, in several teams, differences in tenure before the intervention created an immediate urgency to align and form connections. Members felt pressure to establish a

collective team identity quickly, which fostered a stronger initial commitment. As one participant reflected: *"Some employees knew each other better, having been in the organization longer, while others were new, creating a sense that we needed to quickly become a team"* (R6).

However, not all teams experienced this clarity. Instead, some cases showed visible disconnection between how purpose was perceived internally versus externally. While stakeholders outside the team expected change and improvement with the intervention, internal members often felt content with the current state, which influenced how they approached CI-Boost. One participant explained: *"The purpose wasn't very clear to us […] Others saw that the organization wasn't functioning optimally […] but internally, we were satisfied with how things were"* (R12).

In contrast, teams actively working to clarify and revisit their goals, demonstrated a stronger and more resilient sense of direction when implementing the intervention. Purpose was continuously reinforced through dialogue and reflection, and one participant described how their team made conscious efforts to avoid shortcuts and regularly returned to the question of *"what are we actually working towards."* They added, *"We see ourselves as being here, but we want to get here [...] so yes, the purpose for us has been clear"* (R8). The shared clarity around purpose, established before the intervention, was described as enabling more focused and consistent engagement during CI-Boost, helping the team align efforts more effectively.

5.2.2 Motivation

Participants described how initial motivation shaped how teams engaged with the intervention. Teams that entered the intervention with high initial motivation and sustained it throughout reported smoother collaboration and found the sessions more meaningful.

However, when one or more team members did not personally connect with the group's goals, engagement with CI-Boost suffered. One participant reflected on this misalignment within their team, explaining that although a shared purpose existed, *"it was not meaningful to everyone."* They noted that one member *"didn't see the value in working together as a team [...] it became clear that she never truly felt engaged"* (R13). This illustrates how the absence of individual relevance can hinder collective motivation, even when a purpose is formally in place.

Recognition of collaboration as inherently valuable, especially when supported by external validation like research, was another motivating factor. Several participants emphasized how seeing teamwork as a meaningful and evidence-based practice fueled continued engagement in the intervention. One participant explained, *"We all see the value of collaboration, that was the main motivation for us [...] It's also valuable to know that there is actual research behind it"* (R6). This highlights how motivation for the intervention was not only emotional or goal-driven but also intellectual.

Sustained motivation was supported by a mindset of continuous progress rather than settling for stability. Some viewed development as ongoing rather than a final destination, which fostered continued engagement with the intervention. One participant reflected, *"We have taken steps in the right direction [...] But we don't settle there. When driven by an interest in this, you always strive for the next goal"* (R17). This forward-looking approach helped maintain momentum and build resilience, even in the face of challenges.

5.3 Enabling Structure

5.3.1 Team Composition

Differences in interpersonal qualities influenced team interaction and the overall sense of psychological safety. Some members contributed readily formally and informally, while others were more reserved, speaking only when they felt they had something valuable to add. These contrasting qualities occasionally led to uneven participation during the intervention, but were generally acknowledged and respected within the group. As one participant described, *"some were more extroverted […] others spoke only when they felt it was worthwhile"* (R7).

Participants reported that smaller teams, 4-6 members, collaborated more easily during the intervention, while larger teams, around 10, lacked shared tasks beyond CI-Boost, making sessions feel less purposeful and harder to navigate.

Despite these differences, a supportive atmosphere was critical for meaningful engagement with CI-Boost. Participants emphasized the importance of emotional safety in creating space for honest conversations. Even those who found it difficult reported that a secure environment helped lower those barriers. One participant noted, *"I sometimes struggle to talk*

about emotions and difficult situations, but we had a supportive environment which made it easier opening up" (R16).

Several participants noted that early unawareness of interpersonal and task-related differences hindered communication and engagement during CI-Boost. They reflected that acknowledging these differences before the intervention could have improved interaction and reduced misunderstandings.

5.3.2 Norms

Establishing and maintaining team norms was seen as crucial for shaping communication, participation, and psychological safety during CI-Boost. Several teams worked proactively beforehand to set shared expectations, including adapting feedback styles to individual preferences. As one participant noted, they discussed *"how each communicates, receives communication, and needs from others [...] to adjust our feedback to each person"* (R8). Teams that personalized their norms before the intervention reported more respectful and constructive dialogue during the sessions, which they viewed as essential to gaining value from CI-Boost.

However, while many teams agreed on ground rules for the sessions early on, adherence varied. Norms such as staying focused, minimizing distractions, or ensuring equal participation were not always upheld in practice. As one participant reflected, *"Despite agreeing on norms [before the intervention] these were not followed"* (R13). This gap between intention and implementation sometimes disrupted the group's ability to maintain structure and flow during discussions which, according to participants, limited the impact of CI-Boost on team dialogue and reflection.

In newly formed teams, co-creating norms appeared especially important. Defining expectations early fostered an inclusive atmosphere where members throughout the sessions felt empowered to express their needs. One team began by sharing what each person required to feel safe and engaged, which participants felt made their CI-Boost experience smoother: *"Since being a completely new group, we started by asking each other what was most important for everyone in this intervention. I mentioned struggling to open up if feeling judged, so we agreed to be mindful of that"* (R15)

In contrast, some teams without clearly defined or reinforced norms often struggled with trust and openness, while others were not impacted at all. In some cases, indirect communication patterns shaped by previous management practices carried into the intervention. One participant described how past habits of avoiding difficult conversations created barriers:

> *"We lacked psychological safety and trust […] we never communicated directly but went through the manager, which created divisions and undermined the open atmosphere needed for the intervention"* (R13)

These dynamics made it harder for the team to engage openly during the CI-Boost sessions.

5.4 Supportive Context

5.4.1 Resources

Participants described varying levels of preparedness prior to the intervention. In some cases, earlier team-building or development efforts helped create a foundation that made it easier to engage in the sessions. One participant reflected, *"The group was more mature than I had expected in a positive way […] Likely because we had done some exercises before starting that part of the toolkit"* (R17). These prior efforts contributed to more confident participation and a stronger perceived impact of the intervention.

Organizational coordination also shaped perceived readiness. In some cases, HR and senior involvement beforehand contributed to a sense of legitimacy and preparedness. One participant shared that HR had ensured *"each team had what they needed for the intervention to work smoothly"* (R6). This suggests that beyond team-level activities, logistical support and visible organizational backing fostered more effective engagement.

Participants pointed to challenges related to scheduling and timing. Compressed timelines and competing priorities were described as limiting factors that made it harder to fully engage. One team member described their "excellent" team struggling under pressure: *"We had to complete eight sessions in eight weeks, which created pressure"* (R11). A critical session coincided with a major event, leaving the team exhausted: *"That timing contributed to things escalating […] a more flexible approach would have allowed for better engagement and reflection"* (R11).

Another participant noted that *"there was simultaneously a lot going on in the company, and other priorities were seen as more important"* (R13), reflecting how competing organizational demands and poor timing hindered the team's ability to fully engage with the intervention.

5.5 Expert Coaching

5.5.1 Leadership

Participants described varying levels of leadership involvement during the intervention. In teams where managers were visibly supportive and actively engaged, participants reported a stronger sense of trust and direction with CI-Boost. One participant shared how their manager made it clear beforehand that he was joining the team as an equal while also encouraging others to step into leadership roles, which *"created trust, both from him and the rest of the group"* (R4).

In some cases, initial managerial scepticism to CI-Boost did not hinder team motivation, as long as leaders remained open and engaged. As one participant explained, their manager wasn't fully convinced but showed willingness to improve, which signaled that *"this was a priority"* (R5) and motivated the team to take the sessions seriously.

By contrast, when a direct manager was negative to CI-Boost from the start, despite support from senior leaders, team engagement suffered. One participant noted that their manager's negative attitude before and during the sessions affected the group and made participation more difficult. Others linked low motivation to an absence of visible support beyond HR. As one participant reflected, *"the manager wasn't involved at all, and maybe that's why [a colleague] never felt motivated"* (R13).

6. Analysis

6.1 A Real Team

Hackman (2002) defines a real team as one characterized by clear boundaries, task interdependence, and stability. While many participating teams in this study exhibited these formal features, the empirical material indicates that their mere presence was not sufficient to generate meaningful engagement with the CI-Boost intervention. Instead, it was the interpretation and enactment of these features in daily collaboration that shaped the team's perceived ability to benefit from the intervention, resonating with recent views in literature on dynamic inputs (Moon et al., 2004; Whitworth & Biddle, 2007).

For instance, teams with high structural interdependence did not always describe mutual reliance or shared ownership. In some cases, formal collaboration structures coexisted with siloed behaviours and minimal cross-boundary interaction. In contrast, teams that emphasized relational coordination reported deeper engagement in CI-Boost. This suggests that interdependence is most impactful when it is socially acknowledged and actively practiced, not simply embedded in team design.

Similarly, stability in team composition did not uniformly translate to perceived psychological safety or openness. In some cases, newer teams formed trust and cohesion rapidly through deliberate norm-setting and shared reflection, while others with long-standing membership reported entrenched tensions or fragmented communication. This offers an interpretive extension of Hackman's (2002) model by emphasizing that stability should be understood not only as continuity in membership but as a relational achievement, formed through trust-building and sustained interaction over time. This aligns with Whitworth & Biddle (2007) who argue that in agile or complex adaptive systems, stability is not an input but a dynamic outcome of iterative collaboration.

This suggests that the "a real team" condition must be not only formally present but also meaningfully internalized in practice to serve as a functional foundation for TDIs aiming to foster CI.

6.2 Compelling Direction

While Hackman (2002) defines compelling direction as a combination of goal clarity, challenge, and motivational force, the empirical material suggests these components may not contribute equally. In particular, participants' reflections indicate that intrinsic motivation, especially a growth mindset, might play a decisive role in activating this condition.

In several teams, motivation appeared to shape whether participants engaged meaningfully with the CI-Boost sessions. Teams that demonstrated a forward-looking attitude, characterized by openness to feedback, curiosity, and a belief in development, described sustained engagement and perceived the intervention as more meaningful. These patterns suggest that motivational readiness, the team's collective willingness, perceived relevance and openness to engage in CI-Boost, may enhance the effects of compelling direction, even when teams begin with unclear goals or limited cohesion.

Conversely, the empirical material includes teams that articulated a shared purpose but struggled to maintain motivation, momentum or translate that clarity into action. This may indicate that purpose alone was not always sufficient; without a motivating connection to the goal, some teams reported disengagement or stagnation during the intervention. Furthermore, participants who reported that one or more members did not see the value in collaboration, described that this made collective progress more difficult.

This pattern echoes Runsten and Werr's (2020) findings on 'second-best teams', teams that, despite having strong structural conditions in place, fail to develop through interventions. In their quantitative study, these teams tended to overestimate their capabilities and showed lower actual knowledge integration. Likewise, in this qualitative study, even teams with clear purpose or formal enablers did not benefit from the intervention unless they demonstrated motivational readiness. This reinforces that structural enablers are insufficient in the absence of a drive to improve.

In this sense, the authors interpret motivation not only as one component of compelling direction, but as a foundational condition that influences whether the team can internalize structural conditions. This provides further explanatory power to the findings on 'a real team', suggesting that the internalization of structural conditions may hinge on the team's motivational readiness.

In doing so, this study responds to the call by Janssens et al. (2022) to move beyond static assessments of CI, by illustrating how motivational readiness as a prerequisite may shape the team's capacity to develop CI dynamically through interaction during a TDI. This may further challenge Hackman's (2002) more static interpretation of structural conditions as assumed to function uniformly, and instead suggests that their effectiveness is contingent on a team's motivational state.

6.3 Enabling Structure

Consistent with the previous findings in the study, the data related to enabling structure suggest that formal features such as team composition and norms may only support development when they are actively interpreted, internalized, and enacted in practice.

Structural diversity in interpersonal qualities, including communication styles, emotional orientation, and personality, was described across both high- and low-functioning teams. This suggests that diversity alone might not be sufficient for developmental progress. Instead, its enabling potential appears to depend on the team's collective capacity to recognize, discuss, and adapt to internal differences before the TDI. In teams where early reflection on interpersonal dynamics took place, before the intervention, participants described more effective interaction patterns and greater psychological safety during the sessions. This supports the interpretation that team composition becomes enabling not in design, but through shared sensemaking and behavioral adaptation. These findings align with Mineiro et al. (2024) who underscored the importance of proactively managing internal differences to enhance communication openness and support team development.

In addition, participants' reflections on how smaller team size supported meaningful engagement, while larger teams struggled, highlight how enabling structure may reinforce the sense of a real team and compelling direction. Smaller teams appeared to foster greater interdependence, which in turn facilitated more purposeful collaboration during the intervention.

Furthermore, norms were described as functioning effectively only when co-created, internalized, and consistently reinforced, as illustrated in the literature (Whitworth & Biddle, 2007). In teams that engaged in explicit discussions about expectations, for example how to give and receive feedback, participants reported more respectful dialogue and greater

psychological safety during the sessions. Conversely, when norms were imposed top-down or applied inconsistently, participants noted that they failed to support openness and trust.

In some cases, participants described inherited communication patterns, such as indirectness or avoidance, that limited how effectively new structures were taken up during the intervention. When such patterns remained unexamined, the intervention struggled to foster openness and trust. This suggests that enabling structures depend on a prior willingness to surface and reflect on existing dynamics, and without that, new norms risk being undermined by legacy behaviors.

6.4 Supportive Context

The findings suggest that supportive context extends beyond the provision of resources to include developmental continuity and symbolic alignment. Teams that had engaged in prior developmental efforts such as team-building or reflection exercises demonstrated greater readiness to engage with the intervention. These preparatory experiences appeared to facilitate a smoother start and deeper engagement, indicating that resources are not only static inputs but part of a cumulative developmental trajectory.

Similarly, organizational coordination such as visible involvement from HR or senior leaders was experienced not merely as logistical support, but as a form of legitimizing signal that elevated the intervention's perceived value and importance. This aligns with a dynamic interpretation of supportive context, in which structural support must be enacted through timing, visibility, and alignment with the broader organizational rhythm (Moon et al., 2004; Whitworth & Biddle, 2007).

Conversely, participants in teams facing tight schedules or competing priorities described the intervention as fragmented or ill-timed. Even highly functional teams reported that temporal misalignment such as holding key sessions during peak organizational events diminished their ability to engage reflectively. This highlights that supportive context is not only about access to resources, but also about temporal and cognitive space, without which developmental interventions risk being deprioritized or perceived as disruptive.

6.5 Expert Coaching

The empirical material indicates that expert coaching served as a prerequisite for effective engagement with the TDI by managers' motivation transmitting to the team. This was supported by the interviewees' account that when managers expressed a constructive attitude toward the intervention participants described increased commitment and perceived legitimacy. In contrast, managerial skepticism, whether explicit or subtly expressed, was associated with lower engagement and diminished team energy. This notion adds nuance to Hackman's (2002) emphasis on expert coaching, as an enabling condition suggesting that its effectiveness hinges not on leader presence per se, but on their ability to transmit motivation to the team.

Further, the findings suggest that leaders influenced team motivation not only through their own enthusiasm, but through the degree of relational trust they had established with their teams. In cases where managerial trust was low, presence acted as a constraint rather than a catalyst, suppressing openness and reinforcing silence. This supports Woolley et al. (2022), who argue that the effectiveness of hierarchical structures in enabling coordination is conditional on contextual trust. The ambivalence observed in hierarchical dynamics points to a critical boundary condition: leader presence is only enabling when relational trust is pre-established.

Notably, the study further indicates that immediate managers exert more influence than top-down leaders through informal relational cues. This asymmetry suggests that proximity and perceived authenticity are more salient motivators than hierarchical authority alone. Teams with disengaged immediate leaders, even when higher-level executives endorsed the intervention, demonstrated lower affective commitment, implying a weak transmission of top-level support through hierarchical layers.

6.6 Tying It All Together

This analysis suggests that while structural conditions may offer a foundational framework, they do not in themselves guarantee effective engagement with the intervention. Instead, across all five of Hackman’s enablers, motivational readiness, particularly a growth mindset and willingness to engage, appeared to shape whether these conditions were internalized and

acted upon. Structural features seemed to become functionally relevant when the team interpreted and enacted them as meaningful in their own context.

Teams tended to benefit from structural interdependence when they were motivated to actively engage with one another, rather than simply being formally linked (*Real Team*). A clear purpose alone had limited impact unless it was internalized through a growth-oriented mindset, which appeared to give the direction emotional and developmental relevance (*Compelling Direction*). Team diversity in composition supported development when members were motivated to surface interpersonal dynamics, co-create norms, and challenge inherited behaviors (*Enabling Structure*). Organizational readiness and resource availability were more likely to enable engagement when teams had the motivational capacity to prioritize development, despite competing demands (*Supportive Context*). Finally, leadership supported team readiness when immediate leaders were trusted and visibly engaged, as their relational behavior seemed to shape whether teams felt psychologically safe and motivated to participate meaningfully (*Expert Coaching*).

In sum, this study challenges static interpretations of structural readiness and contributes to a dynamic view in which motivational readiness acts as the prerequisite that activates structure. It suggests that it is not structure alone, but its motivationally charged enactment, that may determine whether CI can emerge through engagement with the TDI, illustrated in Figure 6.6.

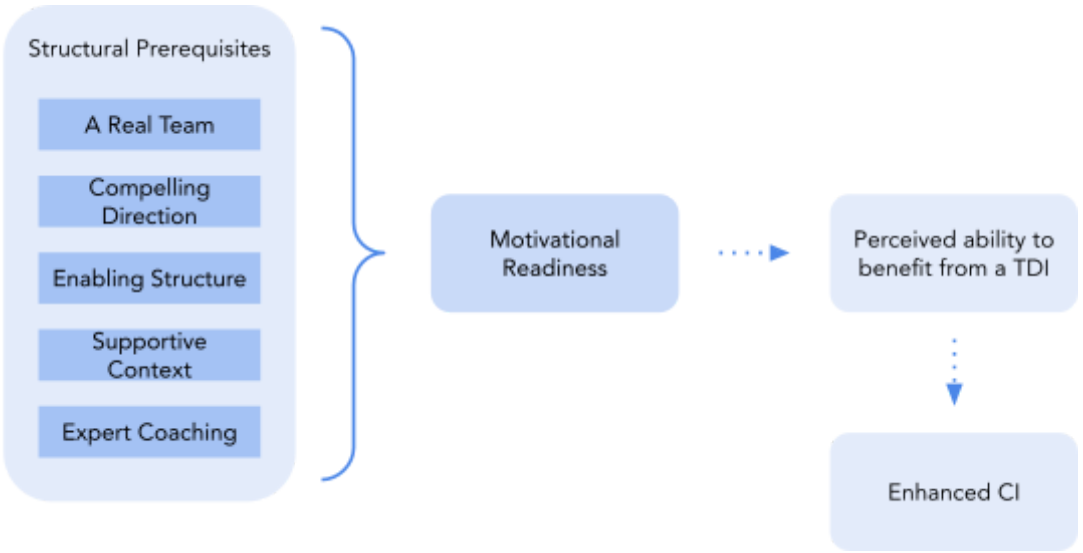


Figure 6.6: *How Structural Prerequisites Enables Teams to Benefit* (Bergström, Wilfordson, 2025)

7. Discussion

7.1 Answer to Research Question

Through a qualitative study, this research has explored how structural conditions shape teams' perceived ability to cultivate CI through a TDI. The empirical data were analyzed through the lens of HTEM, in order to answer the following research question:

> *How do structural conditions shape teams' perceived ability to cultivate collective intelligence through a team development intervention?*

The analysis suggests that structural conditions enable CI not by their formal presence alone, but through whether they are internalized and accompanied by a willingness to engage. This finding supports that motivation, a component of *Compelling Direction* in the HTEM framework, may not be seen solely as an enabling condition alongside the others, but rather as a foundational input enabling the other conditions to be activated.

These findings suggest that structural conditions matter most when they are lived, not merely designed. The ability to cultivate CI may depend not only on what is formally in place, but on the team's willingness and ability to make use of it. In this way, structural conditions matter not for what they are, but for how they are enacted, by motivating teams to engage, reflect, and grow together.

7.2 Contributions

This study seeks to make a contribution to the academic debate by addressing a knowledge gap in understanding how structural conditions impact the effectiveness of TDIs ability to cultivate CI. Specifically, it explores what explains the variation in teams' perceived ability to benefit from such interventions, with findings that both support and challenge prior literature.

Firstly, the study responds to the call posed by Runsten and Werr (2020), who observed significant variation in team outcomes following a TDI. Their study found that "second-best" teams, those that initially performed relatively well, often stagnated or declined. They hypothesized that this may be due to an overestimation of capabilities and weaker engagement with the intervention, but emphasized that the underlying mechanisms remained unclear and warranted further investigation.

This study builds on their insights by suggesting that motivational readiness, including a growth-oriented mindset, plays a critical role in shaping how structural conditions are internalized and enacted. Rather than functioning as one enabling condition among others, motivation appeared foundational to the activation of other structural inputs. These findings help clarify why some teams may fail to engage meaningfully with a TDI despite favorable structural features, offering empirical support for what Runsten and Werr had previously identified as a theoretical possibility.

This finding further challenges some of the previous studies on what enables teams to effectively engage with TDIs. Contrary to prior research positioning psychological safety as a critical precondition for effective interventions (Arafeh et al., 2010; Flanagan, 2008), the study's findings suggest that teams with initially low psychological safety can still demonstrate significant improvement with motivation and a growth mindset.

Moreover, while our findings align with HTEM regarding the importance of structural conditions, they add nuance by indicating that these conditions are activated when teams exhibit motivational readiness and a growth mindset. In this sense, motivation emerges as the foundational enabler for structural conditions to exert their intended effect.

7.3 Limitations and Future Research

Alongside its insights, the study acknowledges several limitations that open avenues for future research.

First, the study's application of HTEM to assess structural readiness introduces limitations for cross-study comparison, as this represents a novel use of the framework. This invites further research to test the model's relevance and limitations in pre-intervention settings across different organizational contexts, sectors, and types of development interventions, in order to evaluate the robustness of HTEM as a tool for understanding structural readiness.

Second, a limitation is that conclusions about teams' intervention engagement were based solely on participants' narratives, without quantitative performance data or full-team participation. Although interpretations were grounded in rigorous template analysis, the absence of quantifiable outcome measures introduces potential for interpretative bias. This limitation was compounded by incomplete within-team sampling which may have skewed the data if participants were more reflective, critical, or motivated than their peers. Future

research could strengthen validity by ensuring full team participation and adopting a mixed-methods design that integrates qualitative data with performance metrics to better capture divergent perspectives.

Third, while the study's focus on Swedish teams allowed for cultural consistency, crucial in the absence of comparative performance data, it limited the findings generalizability. Cultural norms around hierarchy, communication, and motivation likely shape how structural conditions and TDIs are interpreted. Future research should examine how TDIs like CI-Boost are received in other contexts, particularly where organizational dynamics differ.

Lastly, the study suggests that a growth mindset may function as a foundational enabling condition that activates other structural conditions. While motivation was included in the original framework as one of several enablers, its foundational role emerged inductively through the data, as motivational readiness and a growth mindset consistently appeared to underpin the activation of other inputs. Future research could examine this notion further using frameworks that systematically assess motivation across varied team, cultural and intervention contexts.

7.4 Conclusion

This study set out to explore how structural conditions influence teams' ability to cultivate CI through a digital TDI, using HTEM as a guiding framework. The findings suggest that structural conditions become enabling prerequisites for effective engagement with a TDI first when they are internalized and activated by motivation and a growth mindset. In this way, motivation may serve as a foundational, rather than complementary, condition, shaping how structural inputs are interpreted, enacted, and leveraged to support the development of CI through the intervention.

8. Implications for Practice

The purpose of this study has been to explore how structural conditions shape teams' perceived ability to benefit from a TDI aimed at cultivating CI. Using a qualitative research design appropriate for examining team members' subjective experiences and meaning-making processes (Saunders et al., 2023), the study draws on 18 semi-structured interviews with Swedish professionals, across diverse roles and organizations, who had completed the CI-Boost intervention. The analysis suggests that structural enablers foster meaningful development when they are psychologically internalized and perceived as relevant by the team. In particular, motivational readiness emerged as a foundational precondition, enabling the other structural conditions to be activated.

These findings offer implications for practice that are of value across multiple stakeholder groups. The study provides insights for organizations and teams implementing TDI, as well as for developers, such as CI-Boost, responsible for designing and delivering TDIs. In addition, the findings carry ethical and societal implications. This section begins by outlining practical implications and concludes with a discussion of the study's ethical and societal implications.

8.1 Implications for Organizations

For organizations implementing TDIs, the study's insights offer practical guidance on how to create the conditions under which teams are more likely to engage meaningfully with an intervention. To guide organizations in fostering more effective TDIs, this section pairs implications derived from the study's findings with a corresponding recommendation for practice.

1. Immediate leadership shapes team motivation and perceived legitimacy of the intervention

The study found that the actions and attitudes of the immediate team leader had a decisive influence on how the TDI was perceived and engaged with by teams. Teams were more likely to view the intervention as legitimate and worthwhile when their direct leader was visibly involved, relationally supportive, and modeled inclusive behavior. In contrast, when leaders were passive, skeptical, or disengaged, team motivation tended to decline and engagement remained superficial.

While senior leadership endorsement was generally appreciated, the findings suggest that it was the immediate team leader who had the most direct impact on whether the intervention was perceived as relevant and credible. This highlights that the success of a TDI may depend less on formal authority and more on relational behaviors that signal trust, openness, and shared ownership.

Recommendation: Support immediate leaders in preparing relationally, not just operationally

Organizations should assess whether team leaders are perceived as open, engaged, and committed to team development before launching a TDI. Where needed, leaders should be supported in preparing relationally, not just operationally, for the intervention. By ensuring that leadership signals align with developmental goals, the empirical findings support that the organizations may increase the likelihood that teams engage with openness and sustained motivation.

2. Motivational readiness is a critical precondition for meaningful engagement

The findings indicate that a team's initial motivation significantly influenced how meaningfully members engaged with the intervention. Teams that entered the process with a forward-looking mindset, characterized by curiosity, openness to feedback, and a belief in development, were more likely to describe the sessions as relevant, energizing, and impactful. In contrast, teams with low motivational readiness, even when structural features were present (such as formal goals or defined roles), often struggled to see the value of the TDI and showed signs of disengagement or resistance.

This suggests that motivational readiness functions not simply as one component of *Compelling Direction*, but as a foundational condition that enables teams to activate and internalize the developmental goals of the intervention. When team members shared a collective developmental drive, they were better equipped to translate purpose into action.

Recommendation: Assess and address motivational readiness early in the process

Organizations should assess their teams' motivational readiness before implementing a TDI. If readiness appears low, the underlying causes, such as unclear goals, weak interdependence, or a lack of supportive context, should be explored. This study suggests that drawing on frameworks like HTEM may help diagnose these barriers early. Addressing them proactively

may increase the likelihood that teams perceive the intervention as meaningful and worth investing in, thereby enhancing its potential to support collective learning and growth.

3. Structural features only enable development when enacted and experienced as relevant

The study found that formal structural features such as interdependence, norms, and team stability did not, on their own, lead to meaningful engagement with the intervention. Their enabling potential depended on whether teams experienced these features as relevant and enacted them in practice. In several cases, elements like defined roles or agreed-upon norms existed in theory but had little impact because they were not reinforced or internalized.

Teams that had reflected on their collaboration habits, co-created norms, and addressed interpersonal dynamics prior to the intervention reported a stronger sense of psychological safety and were more likely to engage openly in the CI-Boost sessions. These findings indicate that structural conditions must be made meaningful through shared experience and relational enactment.

Timing also emerged as a key part of the structural context. When interventions were introduced during periods of high pressure or limited capacity for reflection, teams were less likely to perceive them as relevant or worth prioritizing. Poor timing, in this sense, can diminish motivation, reduce perceived value, and prevent the activation of existing structural enablers.

Recommendation: Support internalization of team structures and consider time before the intervention

Before launching a TDI, organizations should not only ensure that team structures are formally in place, but also support teams in actively interpreting and applying them. This may involve hosting norm-setting workshops, guided discussions about collaboration habits, or exercises to surface unspoken dynamics. In addition, organizations should carefully consider when an intervention is introduced, aiming to align it with periods where teams have the capacity to reflect and engage. Doing so may increase the likelihood that structures like norms, roles, and collaboration processes are perceived as relevant, thereby enhancing the team's readiness to engage with the intervention in a meaningful way.

8.2 Implications for Developers

For organizations developing and delivering TDIs, the study's insights provide actionable suggestions on how interventions can be designed, introduced, and supported to enhance their effectiveness. To increase the relevance and impact of TDIs across diverse team contexts, this section pairs implication derived from the study's findings with a corresponding recommendation for practice.

1. Teams differ in structural readiness, which influences motivational engagement
The study found that teams entered the intervention with varying degrees of structural readiness including differences in goal clarity, task interdependence, team stability, and pre-existing norms. While these features were often formally in place, their influence on the intervention's effectiveness depended on how team members experienced and enacted them in practice. Some teams described their structures as enabling collaboration and shared reflection, while others found that misaligned or superficial structures limited their engagement.

These structural differences appeared to shape each team's motivational readiness. For example, teams with fragmented collaboration or unclear direction often struggled to sustain focus, whereas teams with more cohesive structures reported smoother participation. This suggests that interventions must be capable of accommodating such variation from the outset.

Recommendation: Design interventions adaptable to different structural starting points
Developers are encouraged to prioritize flexibility in how TDIs are structured and delivered. This could include offering modular formats, diagnostic entry tools, or optional activities that allow teams to tailor the intervention to their specific context. By designing interventions that can meet teams where they are, both structurally and motivationally, developers can improve perceived relevance and support more sustained engagement across a broader range of team environments.

2. Developers should account for leadership influence when designing the intervention

As discussed in the organizational section, the study found that immediate leaders played a decisive role in shaping team motivation and the perceived legitimacy of the intervention. While organizations are best positioned to assess and prepare their team leaders, the findings also carry important design implications for developers.

In particular, the study suggests that teams were more likely to engage meaningfully when their leaders had been introduced to the developmental purpose of the TDI in advance and encouraged to model relational behaviors such as openness, humility, and shared ownership. In cases where developers had supported early leader involvement, for example, by having leaders complete a pilot or introductory version, teams described stronger motivation and clearer expectations.

Recommendation: Integrate relational preparation for immediate leaders

Developers should include early-stage components that introduce team leaders to their role in shaping team engagement during the intervention. This may involve leader-facing onboarding materials, pilot modules, or briefing guides that highlight how leader behavior can influence the team's perception of the intervention's relevance and value. By preparing leaders within the structure of the intervention itself, developers may increase the likelihood that teams engage with openness and sustained motivation.

3. Early framing of the intervention influences team openness and engagement

The study found that how the intervention was introduced shaped teams' initial attitudes and willingness to engage. Teams that were encouraged to view the TDI as a developmental opportunity and who understood its relevance to their collaboration goals were more likely to approach the sessions with curiosity and sustained motivation. In contrast, when the intervention was framed in generic terms or launched without clear purpose, some teams expressed skepticism or failed to engage meaningfully. This suggests that early framing plays an important role in shaping how the intervention is perceived, particularly when it reinforces a growth-oriented mindset and emphasizes the value of collaboration. As such, developers have an opportunity to influence this initial framing through the design of onboarding components within the intervention.

Recommendation: Include an onboarding module that promotes a growth mindset

Developers should integrate an introductory module or session that helps teams understand the purpose of the TDI, the value of ongoing team development, and the potential benefits of adopting a growth mindset. This may include short reflective exercises, example narratives, or messaging that frames the intervention as a supportive opportunity for learning and improvement. By fostering this orientation early, developers may increase the likelihood that teams view the TDI as relevant and engage more constructively throughout the process.

8.3 Ethical and Societal Implications

Beyond practical considerations, this study also holds ethical and societal implications.

Firstly, from an ethical perspective, teams' accounts that introducing a TDI when structural readiness was lacking risked doing more harm than good highlight the importance of proactively assessing structural readiness to prevent unintended negative consequences and ensure that interventions support, rather than undermine, team development.

Secondly, the reasons for lacking readiness differed across teams. This underscores the need for equity through tailored support mechanisms that enable each team to engage meaningfully with a TDI based on their specific challenges and starting points.

Thirdly, when structural conditions were not enacted in ways that felt relevant, engagement was hindered. This was often not due to team failure, but stemming from organizational shortcomings. Supporting teams in making structures meaningful should therefore be seen as a shared ethical responsibility among team members, organizations, and intervention developers.

On a final note, from a societal perspective, these findings also hold broader societal value. When teams are enabled to realize the TDI's intended benefits of cultivating CI, organizations can unlock enhanced productivity, innovation, and well-being (Salas et al., 2008; Klein et al., 2009; Runsten & Werr, 2023). These are outcomes that extend beyond the team level. This is not only because personal well-being is a societal good, but because high-functioning teams are better equipped to generate long-term value, adapt to complexity, and address emerging challenges. These are capabilities that are increasingly crucial for driving economic and social progress (Salas et al, 2008; Klein et al, 2009; DeChurch &

Mesmer-Magnus, 2010; Tannenbaum & Cerasauli, 2013). In this way, the study's findings support ripple effects that extend well beyond the team, advancing both human flourishing and societal development.

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Appendices

Appendix 1. Interview Guide

Introduction

- Can you tell us a bit about yourself? Name, gender. Your role in your team

A Real Team

Team Boundaries and Membership

- How many members were in your team during the CI-Boost debriefing sessions?
- Was it clear and natural to you who should participate in the CI-Boost sessions (e.g., were managers or consultants included)?

Team Stability

- Were the same team members present in all sessions? If not, how did changes in the team affect dynamics, participation, and engagement during CI-Boost?

Interdependence and Team Identity

- What is your team's main goal or purpose? Do you feel everyone shares a common understanding of this?
- Did you feel a sense of trust among team members? Why or why not?
- How dependent are you on your teammates' contributions to complete your tasks?

Compelling Direction

Clarity of Purpose:

- Was the purpose of the CI-Boost sessions clear, and what were you hoping to achieve?

Motivation and Engagement:

- Were the sessions mandatory or voluntary for your team?
- Who initiated the sessions?
- Did the purpose of the debriefing sessions feel meaningful and relevant to your work?
- What aspects of CI-Boost made you feel engaged (or disengaged)?
- Were there times when you questioned the value of the sessions? If so, when and why?

Enabling Structure

Team Composition and Skill Matching:

- Did your CI-Boost team consist of members with similar or different skills and personalities?
- Did this make collaboration easier or more difficult? In what way?

- How did your team's skills affect your ability to participate effectively in the sessions (e.g., lack of psychological safety, difficulty sharing thoughts or giving feedback openly)?

Clear and Effective Processes:

- How many modules did your team complete, and over what time span?
- Did you prepare for the sessions? Did you feel your team members were prepared?
- What was the time gap between sessions? Did that interval work well?
- Did you have a set schedule for when to hold the sessions?
- Were the sessions held online or in person?
- Did you feel the process for using CI-Boost was easy to follow in your organization?

Shared Norms and Team Behavior:

- Did your team have ground rules or a collaboration agreement for working with CI-Boost?
- Did everyone contribute equally, or were some members more dominant in discussions?
- How did your team's existing dynamics affect your engagement with the tool?

Supportive Context

Resources:

- Did you get dedicated time during work hours for these sessions?
- Was there anything that disrupted your timeline (e.g., parental leave, deadlines)?
- Did you receive training or guidance on how to use CI-Boost effectively?

Expert Coaching

Access to Guidance and Support by Leader

- Before the CI-Boost sessions began, to what extent had your team leader or manager prepared or positioned the team for success?
- Did leadership provide a clear purpose, expectations, or a framework that shaped how you approached the sessions?

In your view, did the leadership context prior to the sessions enable or hinder your ability to engage in meaningful discussions and address team challenges? Why or why not?

Appendix 2. Email Sent to Potential Interviewees, Translated to English

Hi X,

Our names are Ella and Caroline, and we were given your contact details by Matilda Olsson at CI-Boost. As she mentioned, we're currently writing our bachelor's thesis at the Stockholm School of Economics on the topic of Collective Intelligence, and we really appreciate you taking the time to speak with us.

We were also wondering if there's anyone else on your team who you think might be available for an interview? It would be valuable for our research to gather multiple perspectives from within the same team. All interviews will be conducted individually, in line with GDPR guidelines, and both names and company affiliations will remain anonymous in our study.

Would you be available for a 30–60 minute interview anytime in the coming two weeks? We're flexible regarding the format and are happy to do the interview either online or in person, whatever suits you the best.

Looking forward to hearing from you!

Warm regards,
Ella & Caroline

Appendix 3. Interview and Participants Details

Alias	Role	Context	Date	Length
R1	Manager	Member in Leadership Team	25-02-17	42:59
R2	Employee	Member in Management Team	25-02-17	40:54
R3	Manager	Member in Leadership Team	25-02-18	39:02
R4	Senior	Facilitator in Management Team	25-02-18	37:03
R5	Senior	Member in Management Team	25-02-21	42:33
R6	HR	Member in Leadership Team	25-02-21	40:37
R7	HR	Member in Management Team	25-02-24	41:59
R8	Manager	Member in Leadership Team	25-02-25	56:24
R9	Employee	Member in Management Team	25-02-27	48:27
R10	Manager	Member in Management Team	25-02-27	45:09
R11	HR	Member in Management Team	25-02-21	56:37
R12	HR	Facilitator in Management Team	25-02-25	42:59

R13	HR	Member in Management Team	25-02-25	34:16
R14	CEO	Member in Leadership Team	25-02-26	35:29
R15	Employee	Member in Management Team	25-02-26	45:36
R16	Employee	Member in Management Team	25-02-26	41:40
R17	CEO	Member in Leadership Team	25-02-27	40:29
R18	Employee	Member in Management Team	25-02-27	59:46

R = Respondent

Appendix 4. Ethical Considerations

Ethical Considerations

Confidentiality and Data Protection

In accordance with GDPR and the guidelines of the Stockholm School of Economics, you will be asked to provide informed consent before participating in this interview. All information shared during the interview will be treated with strict confidentiality and complete anonymity. No personally identifiable information will be included in the thesis. You have the right to withdraw your consent at any time, upon which your data will be permanently deleted.

Secure Data Storage and Management

The data collected during the study will be securely stored and managed by the Stockholm School of Economics in compliance with GDPR. During the course of the thesis, data will be stored using Microsoft Office tools. Upon completion of the project, all data will be permanently deleted.

Permission to Record

To ensure accurate transcription of the interview, we would like to request your permission to record the conversation. Is this okay with you?