

Training of strategic readiness in
public organizations:

A comparative leadership training study for
executive public leaders in Danish municipalities

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Table of Contents

Acknowledgements	15
Preface	17
1. Introduction.....	19
Part 1. Strategic readiness and leadership training.....	25
2. Literature on complexity and turbulence, strategizing, the municipal apex, and leadership training	27
2.1 Complexity, turbulence, and social acceleration as conditions.....	28
2.1.1 Complexity in executive public leadership research	28
2.1.2 Turbulence as a leadership condition.....	30
2.1.3 Temporal compression and social acceleration	33
2.1.4 Implications for executive public leadership	36
2.2 Public strategy and the political-administrative apex	36
2.2.1 Public strategy and public value	37
2.2.2 Strategic planning and strategic management	38
2.2.3 Strategic content and strategic orientation	39
2.2.4 Strategy-as-practice and strategizing	40
2.2.5 The political-administrative apex	40
2.2.6 Summary on public strategy and the political-administrative apex	42
2.3 Leadership training and joint strategizing.....	43
2.3.1 Leadership training as a structured intervention	43
2.3.2 Design, transfer, and transfer-oriented learning.....	44
2.3.3 Public sector leadership training and respondent position	45
2.3.4 Relational, collective, and action learning orientations in leadership training	46
2.3.5 Summary on leadership training	47
2.4 Summary of literature and bridge to strategic readiness.....	48
3. Strategic readiness: Strategizing at the political-administrative apex.....	51
3.1 From strategy to strategizing	51
3.2 The strategic dyad as the focal relational unit	53
3.2.1 From a differentiated apex to the strategic dyad	53
3.2.2 Shared orientation in a differentiated relation	55
3.2.3 Relational coordination as ongoing alignment.....	56
3.2.4 Responsive interaction and the formation of strategic direction.....	57
3.2.5 The strategic dyad as the relational unit of joint strategizing	58
3.3 Three dimensions of strategic readiness: systematic, coordinated, and collaborative strategizing.....	61
3.3.1 Systematic strategizing	61
3.3.2 Coordinated strategizing	62
3.3.3 Collaborative strategizing.....	63

3.3.4 Summary of the dimensional structure of strategic readiness	64
3.4 Strategic horizons as the orienting architecture of strategic readiness	65
3.4.1 Horizon as a situated and moving vantage point	66
3.4.2 From complexity and turbulence to strategic horizons	67
3.4.3 The architecture of the four strategic horizons	68
3.4.4 The ready known future.....	70
3.4.5 The unready known future	71
3.4.6 The ready unknown future	72
3.4.7 The unready unknown future	73
3.4.8 Overlap and movement across horizons	74
3.4.9 Summary of strategic horizons.....	75
3.5 Conceptual definition and systematization of strategic readiness	75
3.5.1 The horizon-oriented specification of strategic readiness.....	77
3.6 Summary of strategic readiness	77
4. The causal relation between leadership training and strategic readiness.....	79
4.1 The overall causal relation.....	80
4.2 The dimension-specific expression of the causal relation.....	83
4.3 Respondent-specific empirical specifications and hypotheses	85
4.4 Summary of the causal argument	88
5. Operationalizing leadership training as a planned leadership training program	91
5.1 Dyadic strategizing as the object of training	91
5.2 The preregistered training architecture.....	92
5.2.1 Learning objectives as didactic language.....	93
5.2.2 Module 1: Guided entry into the dyad's strategizing.....	94
5.2.3 Touchdown 1: Connecting module work to ongoing municipal practice	95
5.2.4 Module 2: Comparison, mirroring, and peer reflection.....	95
5.2.5 Touchdown 2: Recalibration between modules	96
5.2.6 Module 3: Own case, articulation, and consolidation.....	96
5.2.7 Cross-cutting didactic components and documentation	97
5.3 Training domains and tools	98
5.3.1 Sequential introduction and compass-based integration.....	98
5.3.2 Relation as a training domain.....	100
5.3.3 Dialogue as a training domain.....	101
5.3.4 Develop as a training domain	101
5.3.5 Doing as a training domain.....	102
5.3.6 Learning goals across the four domains.....	103
5.4 Training domains and the dimensions of strategic readiness.....	104
5.5 Summary of leadership training as the planned training.....	105
Part 2. Research design, empirical material, and measurement construction	107
6. Research design	109
6.1 Researcher positionality and field access.....	109

6.2 Comparative design logic.....	110
6.3 Structuring the municipal comparison using Most Similar Systems Design	111
6.3.1 Criteria for retaining municipalities in the comparison	112
6.4 Stratification by municipal size	114
6.5 Recruitment through randomized contact order	115
6.6 Assignment to training and no-training within strata.....	116
6.7 Implementation documentation and delivery-related variation	118
6.8 Design implications for the empirical analysis	120
6.9 Summary of the research design	121
7. Leadership training as implemented	125
7.1 The training architecture as delivered	125
7.2 Intermedia between training modules and municipal practice.....	126
7.3 Implementation documentation and material status	127
7.4 Deviations from planned delivery	128
7.5 Summary of leadership training as implemented	128
8. Data generation and empirical material.....	131
8.1 The questionnaire versions and response format	131
8.2 Data preparation, confidentiality, and research ethics.....	131
8.3 Summary of the empirical material	133
9. Questionnaire material and response structure.....	135
9.1 Measurement waves and response material.....	135
9.2 Item pools and dimensional structure	136
9.2.1 Items for strategic readiness reported by the dyad.....	136
9.2.2 Items for strategic readiness perceived by the directors	143
9.2.3 Items for strategic readiness perceived by the city councilors	149
9.2.4 Parallel items across the three questionnaire versions	152
9.3 Summary of the questionnaire material	157
10. Constructing the strategic readiness measures	158
10.1 Principles for scale and index construction	158
10.2 Factor-analytic diagnostics and substantive item evaluation	159
10.3 Final dimension scales.....	162
10.4 From item answers to dimension scale and overall indices.....	168
10.5 Baseline for constructed overall indices	170
10.6 Summary of the measurement construction	172
Part 3. Empirical analysis of change in strategic readiness	173
11. Comparative analysis of change in the three overall indices	175
11.1 Overview of change in the three overall indices	175
11.2 Strategic readiness reported by the strategic dyad	180
11.3 Strategic readiness perceived by the directors.....	181
11.4 Strategic readiness perceived by the city councilors.....	182
11.5 Stratified analysis of change in the three overall indices.....	183

11.6 Summary of the overall index analysis	184
12. Dimension-specific comparative analysis	187
12.1 Overview of change across the nine dimension scales	187
12.2 Dimension scale robustness of the overall index results	189
12.3 Summary of the dimension-specific analysis.....	190
13. Role-based analysis and item-level patterns	193
13.1 Role-based analysis of strategic readiness reported by the dyad.....	193
13.2 Item-level direction patterns within the final dimension scales	194
13.3 Summary of role-based and item-level patterns.....	198
Part 4. Discussion, conclusion, and perspectives	199
14. Discussion and limitations.....	201
14.1 Status of empirical evidence	202
14.2 Researcher positionality and field access.....	204
14.3 Attention, participation, and researcher as trainer	205
14.4 Measurement, reported and perceived strategic readiness, and respondent position	208
14.5 Scope conditions and limitations	210
14.6 Generalizability, transparency, and analytical reach.....	213
14.7 Summary of discussions and limitations	215
15. Conclusion.....	217
15.1 Main conclusion	217
15.2 Empirical status of the preregistered hypotheses	217
15.3 Answer to the preregistered research question.....	222
15.4 Theoretical conclusion.....	222
15.5 Conclusion on leadership training	224
15.6 Methodological, measurement-related, and empirical contribution	225
16. Perspectives.....	227
16.1 Theoretical perspectives	227
16.2 Methodological and measurement perspectives.....	229
16.3 Empirical perspectives	231
16.4 Practical implications	232
16.5 Future research.....	233
16.6 Final perspectives	235
English summary	237
Dansk resumé	241
Declaration of use of generative AI and AI-assisted tools	245
Bibliography.....	247
Appendix.....	257
Appendix for Chapter 1 – A1: Preregistration clarification	257
Preregistration note	257

Clarification of terminology between preregistration and dissertation	258
Appendix for Chapter 7 – A7: Implementation log for leadership training as implemented	263
Register for the public online appendix regarding Chapter 7	264
Sources used for the log.....	265
Recruitment, selection, baseline measurement, and assignment	266
Planned training architecture	266
Core components of the implemented training	267
Chronological implementation overview	267
Module 1 implementation log	270
Intermedia 1: Touchdown after Module 1 and diaries.....	271
Module 2 implementation log	272
Implemented case and exercises in Module 2	273
Intermedia after Module 2 and diaries	274
Module 3 implementation log	274
Implemented cases and exercises in Module 3.....	276
Deviations from planned delivery	277
Appendix for Chapter 8 – A8: Ethics, consent, and confidentiality documentation	278
Appendix for Chapter 9 – A9: Questionnaire preparation and response material documentation	278
Preparing and documenting the questionnaire data	280
Appendix for Chapter 10 – A10: Measurement construction, EFA diagnostics, and item-retention documentation	287
Appendix for Chapter 11 – A11: Overall-index change within strata	298
Appendix for Chapter 12 – A12: Dimension-specific comparison.....	300
Appendix for chapter 13 – A13: Role-based and item-level supplementary documentation	302

List of tables

Table 2.1: Literature contributions and theoretical implications	50
Table 3.1: The political-administrative apex and the strategic dyad	60
Table 4.1: Preregistered hypotheses and respondent-specific empirical specifications	88
Table 5.1: Overview of the planned training architecture.....	93
Table 5.2: Weighting of learning objectives across modules	94
Table 5.3: The learning goals across the four domains.....	103
Table 5.4: Intended didactic relationship between training domains and dimensions of strategic readiness	105
Table 6.1: From Danish municipalities to the municipal population retained for comparison.....	113
Table 6.2: Stratification by municipal population	115
Table 6.3: Assignment to training and no-training within strata.....	118
Table 7.1: Delivered training sequence	126
Table 7.2: Intermedia components in the implemented training	127
Table 7.3: Deviations from planned delivery	128
Table 8.1: Questionnaire versions and respondent positions.....	131
Table 9.1: Response rate for each respondent group.....	135
Table 9.2: Dyad-reported systematic strategizing items	137
Table 9.3: Dyad-reported coordinated strategizing items	139
Table 9.4: Dyad-reported collaborative strategizing items	141
Table 9.5: Director-perceived systematic strategizing items.....	144
Table 9.6: Director-perceived coordinated strategizing items	146
Table 9.7: Director-perceived collaborative strategizing items	148
Table 9.8: City councilor-perceived systematic strategizing items	150
Table 9.9: City councilor-perceived coordinated strategizing items	151
Table 9.10: City councilor-perceived collaborative strategizing items.....	152
Table 9.11: Parallel items across questionnaire versions for systematic strategizing.....	153
Table 9.12: Parallel items across questionnaire versions for coordinated strategizing.....	154

Table 9.13: Parallel items correspondence across questionnaire versions for collaborative strategizing	156
Table 10.1: Factor-analytic diagnostics by respondent-specific measure and dimension	161
Table 10.2: Final dimension scales after diagnostics and item evaluation	163
Table 10.3: Substantive evaluation of items with loadings below .50	164
Table 10.4: Selected examples from the substantive item evaluation by dimension	165
Table 10.5: Cronbach's alpha for each final dimension scale at each measurement wave and for the pooled response records	167
Table 10.6: From questionnaire answers to the measures used in the comparative analysis	170
Table 10.7: Baseline of the three overall indices	171
Table 11.1: Change in the three overall indices	176
Table 11.2: Estimated training/no-training differences in change within strata...	180
Table 11.3: Empirical status of the preregistered hypotheses at the overall index level.....	186
Table 12.1: Dimension-specific training/no-training differences in change by respondent-specific measure	188
Table 13.1: Role-specific dyad-reported strategic readiness within the strategic dyad	194
Table 13.2: Direction of item-level training/no-training differences within final dimension scales	197
Table 15.1: Empirical status of the preregistered hypotheses	221
Table A.1: Clarification of terminology between preregistration and dissertation.....	259
Table A.2: Training material register for the public online appendix	264
Table A.3: Sources used for the training log.....	265
Table A.4: Core components of the implemented training	267
Table A.5: Chronological implementation overview	268
Table A.6: Delivery overview for module one.....	270
Table A.7: Deviations from planned delivery	277
Table A.8: Ethics, consent, and confidentiality documentation	278
Table A.9: Empirical analytical sequence from questionnaire preparation to comparative analysis.....	279

Table A.10: Questionnaire variable categories by respondent group	280
Table A.11: Source material used in questionnaire preparation	281
Table A.12: Questionnaire preparation and documentation sequence	282
Table A.13: Questionnaire-based item-pool summary by respondent group and dimension	282
Table A.14: Response material by respondent group and measurement wave	283
Table A.15: Analytical calculation and score-construction rules	284
Table A.16: Dataset overview after import	286
Table A.17: Full factor-analytic diagnostics by respondent-specific measure and dimension	288
Table A.18: Lower-loading items reviewed through substantive item evaluation	289
Table A.19: Final item pools used for score construction	297
Table A.20: Dimension score outputs used in subsequent analyses	298
Table A.21: Aggregate and stratified pattern of change in the three overall indices	299
Table A.22: Dimension-specific change by respondent-specific measure and dimension	301
Table A.23: Role-based dimension scores by role	303
Table A.24 : Direction of item-level training/no-training differences within final item pools	304

List of figures

Figure 3.1: The four strategic horizons	69
Figure 5.1: The R3D template	99
Figure 5.2: The strategizing compass	100
Figure 11.1: Change in the three overall indices	177
Figure 11.2: Municipality-level change in the three overall strategic readiness indices.....	178

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Aarhus, August 2026
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Preface

I am a practitioner and a researcher. This position is central to the dissertation: The project began in practice and was shaped by an ambition to produce knowledge that could return to practice. In conversations with mayors and municipal CEOs, and with a recurring question that gradually became too important to leave unanswered: How can the political and administrative apex of a municipality work strategically together when the issues they face are complex, unsettled, and constantly moving?

For almost ten years, I have worked as an adviser to mayors and municipal CEOs in Danish municipalities. Sometimes the advice has concerned their individual roles. More often, it has concerned their collaboration. In those conversations, the formal descriptions of the mayor's political role and the municipal CEO's administrative role have never been irrelevant. But they have rarely been sufficient. What was often at stake was something more practical and more difficult: How the two could think, act, and learn together when strategic issues had no obvious solution, when organizational capacity was uncertain, when political disagreement was present, and when the situation changed while they were trying to handle it.

Looking back through my diary, calendars, and work materials, I could see that the collaboration between the mayor and the municipal CEO was most often challenged when the task itself became difficult to grasp. Budget pressure, demographic change, recruitment problems, policy conflicts, organizational capacity, and public expectations rarely arrive as isolated issues. They are connected, politically sensitive, administratively demanding, and often unstable. This raised the question that became the starting point of the dissertation: Whether we know enough about how mayors and municipal CEOs can be trained to work strategically together under such conditions.

The project grew out of practical concern, but it became a research project because practice alone could not answer the question. I knew from my work that mayors and municipal CEOs often ask how they can work better together. I also knew that the answer could not simply be that they should communicate more, trust each other more, or respect their formal roles. Those things matter, but they do not fully explain how they could work with complex, unsettled, and constantly moving strategic issues. The dissertation is my attempt to examine that question more systematically by looking at the mayor and the municipal CEO as a strategic dyad.

The concept of strategic readiness was developed to make this work visible as a research object. It concerns the strategic dyad's systematic, coordinated, and collaborative strategizing under complexity and turbulence. The purpose of the project was not to remove the difference between the mayor and the municipal

CEO. Their roles are different, and they should remain different. The purpose was to examine whether their joint strategic work could be studied and potentially strengthened through a training program directed at joint strategizing in the strategic dyad.

The dissertation was conducted as an industrial PhD financed by Komponent, in a professional environment closely connected to leadership development in Danish municipalities. This position made the project possible. It gave me access to mayors and municipal CEOs and made it possible to organize a common training and measurement sequence across municipalities. It also meant that the research was never detached from practice. The ambition is for the knowledge produced here to matter beyond the dissertation: To contribute to research on executive public leadership and to return to the field from whence it came.

Writing this dissertation has been a long movement between practice and research. At times, the practitioner in me wanted answers that could be used immediately. At other times, the researcher in me had to slow down, define concepts, qualify claims, and accept uncertainty. The dissertation is written from within that tension. It is an attempt to take practice seriously to study it carefully and to take research seriously to let it challenge what practice may otherwise take for granted.

1. Introduction

Danish municipalities combine several public sector responsibilities within the same institutional setting. They provide welfare services, exercise public authority, regulate local matters, plan local development, and constitute arenas for elected political leadership (Hansen 2024; Røiseland et al. 2024). This gives municipalities a broad governing task. Political priorities, legal obligations, financial constraints, professional expertise, organizational capacity, and citizen expectations are interconnected in concrete municipal work processes.

This governing task is politically led and administratively organized. The mayor carries executive political mandate, democratic legitimacy, and responsibility for political direction. The municipal CEO carries executive administrative responsibility, organizational knowledge, and responsibility for the administrative organization (Hansen 2024). At the top of the formal leadership hierarchy in the municipality, these two roles meet in the political-administrative apex (Mouritzen and Svava 2002). Elected and administrative executives hold separate roles, but local governing is determined by interaction, advice, complementarity, and mutual dependence (Aberbach, Putnam, and Rockman 1981; Mouritzen and Svava 2002; Svava 1999, 2001). Danish municipal research indicates that the division of responsibilities between the mayor and the municipal CEO is locally constituted and enacted through practice. The relation involves recurring interaction, information exchange, trust, broad administrative advice, divided task areas, and overlapping responsibilities around municipal issues (Agerbo, Højberg, and Madsen 2022; Højberg and Madsen 2023; Storgaard and Hansen 2022).

This dissertation examines situations in which the established apex relation operates on issues whose direction, consequences, and conditions are not yet settled. Research on the relation between politics and administration shows that politicians depend on policy-relevant information and interpretation from the administration, which makes the apex relation central to how problems are understood and acted upon (Baekgaard, Blom-Hansen, and Serritzlew 2022; Blom-Hansen, Baekgaard, and Serritzlew 2021). Danish municipal studies indicate that coordination and collaboration in the mayor-municipal CEO relation are more stable in established and recurring processes than in new, cross-cutting, and more demanding situations where the division of responsibility becomes less clear and established forms of collaboration are harder to sustain (Agerbo et al. 2022; Højberg and Madsen 2023; Storgaard and Hansen 2022). Local-government research on management in turbulent settings similarly shows that problem solving often relies on practical craftsmanship and tacit judgement instead of explicit and formalized practices (Hye and Øgård 2016).

A budget pressure case illustrates this kind of strategic issue. What begins as a financial issue may involve demographic change, welfare priorities, legal

requirements, organizational capacity, citizen expectations, and political disagreement. Or a recruitment challenge in elder care may similarly move from a staffing issue to a strategic issue involving service quality, public legitimacy, professional identity, local labor market conditions, and political direction. In both examples, the strategic problem lies in the need to connect political interpretation, administrative knowledge, organizational capacity, and possible direction before the issue is fully grasped.

Complexity and turbulence explain why this type of strategic work becomes more demanding. Complexity concerns the range and character of the interdependencies, interpretations, rules, arenas, and possible consequences that have to be related in strategic work (Buuren, Gerrits, and Teisman 2009; Duit and Galaz 2008; Klijn and Koppenjan 2016). Turbulence causes the conditions surrounding the issue to shift while it is being handled (Ansell and Trondal 2018; Boyne and Meier 2009; Hye and Øgård 2016). Social acceleration provides the temporal background because political, administrative, organizational, and societal processes increasingly unfold under compressed and uneven time horizons (Rosa 2013; Rosa, Dörre, and Lessenich 2017). Taken together, the literature and the examples point to a specific task in executive strategic work. The mayor and the municipal CEO must interpret strategic issues, align political and administrative expectations, develop potential directions, and sustain direction while the conditions for action are not fully grasped.

The concept of strategic readiness is developed to examine joint strategizing in the strategic dyad under complexity and turbulence. It is defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. The strategic dyad denotes the mayor and the municipal CEO treated as the focal relational unit when their joint strategizing is examined. Systematic strategizing refers to the recurrent, structured, and sustained handling of strategic issues over time. Coordinated strategizing refers to the alignment of roles, expectations, interpretations, attention, timing, and action in the strategic dyad's work with strategic issues. Collaborative strategizing refers to the joint development of interpretations, strategic possibilities, and possible directions through interaction. Strategic readiness therefore concerns how the mayor and the municipal CEO work together on strategic issues whose direction, consequences, and conditions are not yet fully grasped.

The concept builds on public strategy research by moving from strategy as a plan and a management process to strategy as an organizational orientation and a situated activity. Strategic planning and strategic management research specify how public organizations formulate direction, identify strategic issues, connect planning to implementation, and sustain action over time (Bryson 2017; Bryson and George 2020; George, Walker, and Monster 2019). Strategic content research shows how public organizations vary in strategic orientation and patterns of action (Andrews et al. 2009, 2011; Boyne and Walker 2004). Strategy-as-practice research shifts attention to strategizing as a situated activity performed by

practitioners through tools, routines, interaction, and judgment (Jarzabkowski and Spee 2009; Vaara and Whittington 2012; Whittington 1996). Strategic readiness builds on this activity-oriented move and locates it in the political-administrative apex.

Leadership training is examined as a possible route to more positive change in strategic readiness. Leadership training research shows that structured training can affect learning, leadership behavior, transfer, and organizational outcomes when training is connected to practice, feedback, and application in the work setting (Day et al. 2021; Lacerenza et al. 2017; Seidle, Fernandez, and Perry 2016). Transfer research further emphasizes that training becomes consequential when learning is supported by training design, opportunity for application, feedback, and the work environment into which learning is brought (Baldwin and Ford 1988; Blume et al. 2010; Grossman and Salas 2011). In this dissertation, leadership training is theorized as a way of working deliberately with the strategic dyad's shared orientation, repeated practice, reflection and adjustment, and application in municipal practice. The planned leadership training program is specified later as the operationalization of this theoretical argument.

Against this background, the dissertation asks the following:

What is the effect of training mayor and CEO in a systematic, coordinated, and collaborative strategic practice when it comes to their responses to complexity and turbulence?

The empirical expectation is specified through three preregistered hypotheses. The hypotheses correspond to three actor positions from which strategic readiness is reported or perceived. The preregistered hypotheses are the following:

H1. Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by both mayor and CEO.

H2. Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by the directors.

H3. Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by the city councilors.

The empirical analysis is organized as a comparative leadership training study with elite participants from Danish municipalities. Access to the mayor-municipal CEO apex is limited, and this study depends on participation from both executive actors in each municipality. My position at Komponent, the organization funding my industrial PhD, provided access to this field through my professional work as an adviser and coach to mayors and municipal CEOs. This position enabled the recruitment of strategic dyads into a training and measurement sequence. The design turns this access into a structured comparison by comparing municipalities assigned to leadership training with municipalities assigned to no-

training before and after the training period. The empirical comparison is the training/no-training difference in change in strategic readiness.

Comparative research provides the methodological basis for examining change in this field (Andersen and Burau 2007; Azarian 2011; Lijphart 1971; Marsh and Stoker 2010). Leadership training is the independent variable, and strategic readiness is the dependent variable. The relevant empirical comparison is the difference in change between municipalities assigned to leadership training and municipalities assigned to no-training.

The empirical analysis examines one systematized concept of strategic readiness through three respondent-specific measures. The first measure is strategic readiness reported by the strategic dyad and is based on separate questionnaire reports from the mayor and the municipal CEO about their joint strategizing from positions within the strategic dyad. The second measure is strategic readiness perceived by directors, and the third is strategic readiness perceived by city councilors. Directors and city councilors also provide questionnaire reports, but their answers concern perceptions of the dyad's strategizing from institutional positions outside the dyad. The three measures remain separate throughout the analysis. The distinction follows self-other agreement research where self-ratings and observer ratings are treated as analytically distinct rating positions rather than interchangeable reports (Lee and Carpenter 2018; Nielsen et al. 2022).

The project's reporting strategy follows from the recognition risk in the field which was a major ethical concern from the very beginning. Mayors, municipal CEOs, directors, and city councilors are public or organizationally recognizable actors. Role, municipality size, training status, stratum, and respondent group can make individuals, dyads, or municipalities recognizable to readers with contextual knowledge. The empirical chapters therefore report aggregated results and avoid identifying individual respondents, dyads, or municipalities. The confidentiality commitments also shape the reporting of supporting and documenting materials. Even though it might have added value to the project, the dissertation avoids direct participant quotations, detailed dialogue excerpts, and extended descriptions of individual dyads to honor the ethical agreement with the participants.

The dissertation makes four contributions. The first is conceptual. It develops strategic readiness as a concept for systematic, coordinated, and collaborative strategizing in the mayor-municipal CEO dyad. The second is theoretical. It specifies a causal argument linking leadership training to change in strategic readiness through shared orientation, repeated practice, reflection and adjustment, and application in municipal practice. The third is methodological and measurement related. It develops three respondent-specific operationalizations and corresponding measures of one systematized concept of strategic readiness: strategic readiness reported by the dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. The fourth is empirical. It provides design-based comparative evidence from an elite-level municipal study of

dyad-based leadership training and strategic readiness, showing a differentiated pattern across dyad-reported, director-perceived, and city councilor-perceived strategic readiness.

The dissertation proceeds in four parts. Part 1 develops the theoretical and conceptual argument. Chapter 2 discusses literature on complexity and turbulence, public strategy, the political-administrative apex, and leadership training. Chapter 3 develops strategic readiness as the strategic dyad's systematic, coordinated, and collaborative strategizing. Chapter 4 specifies the causal relation between leadership training and change in strategic readiness. Chapter 5 specifies how leadership training is operationalized in the planned leadership training program. Part 2 presents the empirical design and data foundation. Chapter 6 specifies the comparative research design. Chapter 7 documents leadership training as implemented. Chapters 8–10 present the empirical material, questionnaire response material, and the construction of the measures used in the comparative analysis. Part 3 presents the empirical analyses. Chapter 11 examines the change in the three overall strategic readiness measures. Chapter 12 examines dimension-specific patterns of change. Chapter 13 presents supplementary analyses of role distribution and item-level patterns. Part 4 concludes the dissertation by answering the research question, discussing implications, and identifying directions for research and practice in chapters 14 to 16.

Appendix A1 reports the preregistration clarification note used to align the terminology of the dissertation with the preregistered project. The public online appendix is available at https://drive.google.com/drive/folders/1yv-aVo9EucUf1K-OyfeqyjS6zZ_uRECN?usp=sharing and contains the original project protocol, non-confidential supporting documents, questionnaire instruments, finalized measurement-audit files, and aggregate analytical outputs.

Part 1.

Strategic readiness and leadership training

Part 1 develops the theoretical basis for the empirical study. Executive public leadership in Danish municipalities takes place under complexity and turbulence, with social acceleration as the temporal background. Under these conditions, strategic work at the political-administrative apex involves unsettled issues, shifting relations, compressed time horizons, and ongoing alignment between political and administrative responsibility. The first task is to specify the concept through which this form of strategic work can be examined.

Chapter 2 discusses the literature that provides the basis for this task. Complexity and turbulence research specifies the conditions under which strategic issues become difficult to delimit, stabilize, and act upon. Public strategy research provides the language of strategy, strategic management, strategic content, and strategizing. Research on the relation between politics and administration specifies the mayor-municipal CEO relation as differentiated, interdependent, and central to municipal direction. Leadership training research provides knowledge about training design, transfer, respondent position, and relational forms of learning. The chapter uses this literature to establish the theory for this dissertation in the conceptual chapter.

Chapter 3 develops strategic readiness as the central concept. Strategic readiness is defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. The chapter specifies strategizing as the activity; the strategic dyad as the relational unit; systematic, coordinated, and collaborative strategizing as the dimensional content; and strategic horizons as the orienting architecture through which strategizing is directed under complexity and turbulence. Strategic readiness is, thereby, developed as the basic concept used in the causal and empirical parts of the dissertation.

Chapter 4 specifies the causal relation between leadership training and strategic readiness. Leadership training is theorized as the independent variable, and strategic readiness is theorized as the dependent variable. The chapter develops the expectation that leadership training can be associated with more positive change in strategic readiness through a dyad-based rationale and four mechanisms: shared orientation, repeated practice, reflection and adjustment, and application in municipal practice. It also specifies how the causal expectation is formulated through the respondent-specific measures linked to the preregistered hypotheses.

Chapter 5 clarifies how leadership training is operationalized in the planned leadership training program used in the study. The chapter treats dyadic strategizing as the object of training and presents the operational principles, training architecture, training domains, tools, and learning goals through which the

planned program works with the mayor-municipal CEO dyad's strategic issues. It also clarifies the relationship between training domains and the dimensions of strategic readiness. 'Relation', 'dialogue', 'develop', and 'doing' are the four training domains in the planned program. Systematic, coordinated, and collaborative strategizing are the dimensions through which later change in strategic readiness is interpreted.

Taken together, Part 1 establishes the theoretical and operational basis for the empirical study. It develops strategic readiness as the concept, specifies the causal relation between leadership training and strategic readiness, formulates the respondent-specific hypotheses, and shows how leadership training is operationalized in the planned program.

Terminology introduced in Part 1.

Part 1 uses a set of related concepts that have different analytical functions. *Strategizing* denotes the interconnected, ongoing, and socially situated activities through which practitioners think, act, and learn strategically as they seek to make strategic issues sufficiently intelligible and to develop, enact, revise, and carry direction forward in practice. *The strategic dyad* denotes the mayor and the municipal CEO treated as the focal relational unit when their joint strategizing is examined. The term is an analytical-relational specification of the same institutionally differentiated relation described as the political-administrative apex. *Strategic readiness* is the central concept of the dissertation and is defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. These three dimensions specify the conceptual content of strategic readiness: Systematic strategizing concerns continuity, coordinated strategizing concerns alignment, and collaborative strategizing concerns the joint development of interpretations, possibilities, and direction.

Strategic horizons specify the orienting architecture through which the dyad's strategizing is directed when strategic issues are grasped and addressed under complexity and turbulence. *Leadership training* denotes the intervention examined in the dissertation, while *the planned leadership training program* denotes the specific operationalization used in this study. The four training domains — 'relation', 'dialogue', 'develop', and 'doing' — are didactic entry points in the planned program. Finally, the three respondent-specific empirical measures distinguish the institutional positions from which the same strategic-readiness concept is reported or perceived: strategic readiness reported by the strategic dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors.

2. Literature on complexity and turbulence, strategizing, the municipal apex, and leadership training

Executive public leadership in Danish municipalities takes place in contexts characterized by complexity and turbulence, with social acceleration as the temporal background. Complexity concerns interdependence, partial knowability, multiple interpretations, and the need to select among many possible relations. Turbulence concerns movement, instability, shifting demands, and recalibration while action unfolds. Social acceleration specifies the temporal compression under which these conditions are encountered.

The relation between complexity and turbulence is central to the dissertation. Complexity foregrounds the range and configuration of the interdependencies, interpretations, rules, arenas, and possible consequences that have to be selected and coordinated in strategic work. Turbulence foregrounds how those relations and the basis for action change while strategizing unfolds. A strategic issue may therefore be difficult to grasp and address because its relevant relations are extensive, heterogeneous, and mutually conditioning, and difficult to carry forward because those relations and the conditions for action may change. Under complexity and turbulence, executive strategic work cannot be reduced to formal plans or the implementation of settled decisions. It also involves interconnected strategic thinking, acting, and learning through which issues are made sufficiently intelligible and possible directions are developed, enacted, revised, and carried forward under changing conditions.

The literature on complexity, turbulence, strategizing, municipal apex, and leadership training develop the basis for the research in this project. Complexity and turbulence research specifies the conditions for strategic activities in the municipalities. Public strategy research provides the language for strategy, strategic planning, strategic management, strategic content, and strategy-as-practice. Research on the political-administrative relation specifies the mayor-municipal CEO relation as differentiated, interdependent, and central to municipal direction. Leadership training research provides knowledge on training design, transfer, public sector leadership training, respondents' positions, and relational forms of learning. The theoretical task that follows is to specify the form of joint strategic work through which the mayor and the municipal CEO interpret strategic issues, align expectations, develop potential directions, and sustain direction under complexity and turbulence.

2.1 Complexity, turbulence, and social acceleration as conditions

Complexity and turbulence provide the two foreground conditions for the theoretical argument. They are related, but they do not name the same problem. Complexity concerns the range and configuration of interdependencies, interpretations, rules, arenas, and possible consequences implicated in strategic work. Turbulence concerns how those relations and the basis for action change while strategic work unfolds. Complexity therefore creates problems of selection and coordination, whereas turbulence creates problems of instability and recalibration. Social acceleration specifies the temporal background by explaining why interpretation, coordination, and response increasingly take place under compressed time horizons and uneven temporal rhythms.

2.1.1 Complexity in executive public leadership research

In public leadership and governance research, complexity refers to situations where interdependencies make problems difficult to delimit, actors interpret problems and possible directions differently, and consequences remain only partly knowable (Buuren et al. 2009; Duit and Galaz 2008; Klijn and Koppenjan 2016).

Public administration and governance research has used the concept of complexity to understand settings characterized by multiple actors, nonlinear dynamics, interdependence, and limited predictability. Klijn (2008) argues that complexity theory contributes to public administration by directing attention to nonlinear dynamics, self-organization, and co-evolution. Teisman, Gerrits, and Van Buuren (2009) develop a similar argument regarding complex governance systems, in which outcomes emerge through interaction among actors, arenas, processes, and surrounding systems rather than through linear implementation. Duit and Galaz (2008) further emphasize threshold effects, cascades, feedback loops, and the limits of predictability in complex, adaptive governance systems.

Governance network research specifies how complexity appears in public sector interaction. Klijn and Koppenjan (2016) distinguish between substantive, strategic, and institutional complexity. Substantive complexity concerns multiple perceptions, contested knowledge, and disagreement about problems and solutions. Strategic complexity concerns interdependence among actors whose strategies are contingent on and responsive to one another. Institutional complexity concerns the rules, arenas, and institutional arrangements that shape interaction across organizational and sectoral boundaries. This distinction locates complexity beyond the content of a public problem. It is also located in how actors understand the problem, depend on one another, and operate across institutional settings.

Complexity also appears within public organizations and leadership systems. Christensen and Lægreid (2011) show how public organizations become complex and hybrid when different generations of reform, such as New Public Management and post-New Public Management, become layered within the same administrative systems. Hence, public organizations attend to multiple and sometimes conflicting ideas, demands, structures, and cultural expectations at the same time. Complexity leadership research adds a leadership-specific point to this governance literature. Uhl-Bien, Marion, and McKelvey (2007) locate adaptive dynamics within a bureaucratic superstructure and describe enabling leadership as connecting formal administrative functions with the interactive processes through which adaptation, learning, and problem solving emerge. Uhl-Bien and Arena (2017) characterize complexity as rich interconnectivity, in which interactions among actors and issues may alter one another in unexpected ways. Murphy et al. (2017) similarly describe leadership in public-sector systems as managing the entanglement between administrative practices that provide alignment and efficiency and adaptive practices suited to complex and dynamic circumstances.

Taken together, this literature positions formal authority, hierarchy, planning, and administrative coordination as part of, rather than the entirety of, the leadership response to complexity. Administrative structures and practices provide orientation and coordination, while interactive and adaptive processes support interpretation, learning, and adjustment. Klijn and Koppenjan (2016) make a parallel governance argument: mutual dependence limits unilateral hierarchical control and creates a coordination problem involving actors' perceptions, activities, and institutional arrangements. Leadership under complexity therefore connects formal administrative coordination with interpretive, coordinative, and adaptive work.

The dissertation uses Luhmann's systems-theoretical work in a deliberately limited way to specify the selection problem implied by complexity. Luhmann (1995) defines a state of affairs as complex when all possible relations among its elements can no longer be actualized simultaneously; selection among possible relations is therefore unavoidable. Applied analytically in this study, this suggests that the mayor and the municipal CEO cannot simultaneously bring every relevant actor, dependency, interpretation, rule, arena, and possible consequence into their joint strategic work. Their strategic work under complexity therefore involves selecting which relations and interpretations receive attention at a given point, while alternative selections remain possible. This limited use does not entail adopting systems theory as the dissertation's general theoretical framework.

On this basis, the dissertation specifies complexity conceptually as a condition that varies in degree across strategic situations. This variation is not understood as a simple count of actors or components. Klijn and Koppenjan (2016) distinguish complexity from complicatedness: a complicated situation can in principle be decomposed and analyzed component by component, whereas a complex situation cannot be understood through decomposition alone because

actors interpret problems and knowledge differently, their strategic choices are interdependent, and their interaction is structured by different institutional arrangements. Lower complexity therefore refers here to situations in which the range of relevant interdependencies, interpretive differences, and institutional arrangements is comparatively bounded. Higher complexity refers to situations in which the relevant relations are more extensive, heterogeneous, and mutually conditioning, thereby increasing the demands placed on selection and coordination. In the dissertation's analytical distinction, complexity foregrounds the range and configuration of relations within the strategic situation. Turbulence, addressed next, concerns how the relations and conditions constituting that situation change while action unfolds.

Example 1: Municipal budget pressure and complexity

Municipal budget pressure I

Budget pressure is rarely only a financial problem. It may involve demographic change, welfare demands, legal obligations, administrative capacity, political priorities, citizen expectations, and the relation between short-term fiscal control and long-term municipal development. In a less complex version of the issue, the relevant interdependencies, interpretive differences, and institutional arrangements may be comparatively bounded. In a more complex version, budget pressure may connect service areas, political arenas, professional groups, citizen expectations, and long-term organizational capacity in ways that cannot be addressed independently. The mayor and the municipal CEO therefore must select which relations warrant attention, how the issue should be framed, which actors should be involved, and which consequences should be prioritized.

Complexity therefore constitutes the first foreground condition. It shows that strategic issues vary in the range and character of the relations that become relevant for interpretation, selection, and coordination. For the mayor and the municipal CEO, strategizing under complexity involves interpreting, selecting, and coordinating relations as the issue itself is being specified, rather than simply applying a settled strategy to an already specified issue.

2.1.2 Turbulence as a leadership condition

Turbulence draws attention to the dynamic and unstable nature of public governance. Public leaders often work with strategic issues while demands, expectations, support, information, and possible responses change. Turbulence concerns the instability of the conditions under which interpretation, coordination, and action take place. It becomes a leadership condition because it affects how strategic direction can be maintained as the situation itself evolves.

The concept has roots in organization theory, public administration, and management thought. Early research in organization and public administration used turbulence to describe environments in which established routines, expectations, and organizational forms are unsettled. Emery and Trist (1965) developed the idea of turbulent fields as environments where internal dynamics produce uncertain and unpredictable change. Waldo (1971) used turbulence to describe a public administration context marked by conflicting societal demands and the need to act intelligently under changing conditions. Drucker (1993) similarly emphasized that public managers increasingly operate under rapid and less predictable change, in which structural shifts alter the critical parameters of action. This literature establishes turbulence as a condition that public organizations work within rather than as an occasional disturbance that can simply be isolated and solved.

Public management research shows that turbulence matters for organizational performance and administrative discretion. Boyne and Meier (2009) examine how environmental turbulence conditions the relationship between organizational stability and public-service performance. Holzer and Yang (2005) place administrative discretion within a public-administration context shaped by changes in the administrative state and society. Together, these studies show that turbulence alters the context in which public leaders interpret problems, coordinate responses, and sustain direction.

Turbulence is closely related to complexity, but the two conditions foreground different features of the strategic situation. Complexity foregrounds the range and configuration of the relations that have to be interpreted, selected, and coordinated. Turbulence foregrounds how those relations and the basis for action change over time. A strategic issue may be complex because the relevant relations are extensive, heterogeneous, and mutually conditioning. It becomes turbulent when those relations shift and interact in ways that alter the basis for action while the issue is being handled. Turbulence may therefore unfold through complex interdependencies (Ansell and Trondal 2018; Buuren et al. 2009; Klijn and Koppenjan 2016).

Ansell and Trondal define turbulence as “Situations where events, demands, and support interact and change in highly variable, inconsistent, unexpected or unpredictable ways” (Ansell and Trondal 2018:44–45). The important point is not change as such, but that events, demands, and support affect one another in ways that unsettle expectations and alter the basis for action while governance processes unfold. This definition also enables the distinction of different sites of turbulence. Turbulence may appear in the environment around public organizations, inside organizations, and across scales. Turbulent environments arise when external conditions change in inconsistent or unpredictable ways. Turbulent organizations arise when instability is embedded inside organizations through internal conflict, staff turnover, conflicting rules, reform processes, or complex operations. Turbulence of scale arises when developments at one level

affect other levels so that a response that appears workable in one arena creates new difficulties in another (Ansell and Trondal 2018). For municipal executive leadership, these forms may appear together. The mayor and the municipal CEO may face shifting external demands, internal organizational disturbances, and movement between local, regional, national, and societal arenas.

Research on governance responses to turbulence specifies how continuity and adaptation can be connected. Ansell, Sørensen, and Torfing (2022) argue that robustness under turbulence depends on the interdependence of stability and change. Stable institutional conditions may support flexible adaptation and proactive innovation, enabling central functions, objectives, and values to be carried forward as circumstances change. The response problem is therefore not simply whether governance should remain stable or change, but how direction and continuity can be maintained while interpretations, instruments, and processes are revised.

Policy-design research specifies this response problem further. Capano and Woo (2017) distinguish robustness from stability understood as an unchanged organizational or policy state. Howlett, Capano, and Ramesh (2018) connect surprise and changing implementation conditions to review, learning, agility, and improvisation. Capano and Toth (2023) further emphasize outside-the-box thinking, improvisation, and fast learning when policy systems confront developments that cannot be fully foreseen. These contributions do not imply continual organizational change. Boyne and Meier (2009) show that internal structural instability may compound the performance consequences of external turbulence. Taken together, the literature frames the governing problem as preserving sufficient continuity of purpose, structure, and coordination while selectively revising interpretations, instruments, and processes when the basis for action changes.

Local government research places these issues closer to the municipal setting. Hye and Øgård (2016) show that municipal managers encounter problem situations of varying character in turbulent times, and that problem-solving often relies on practical craftsmanship rather than purely rational-analytical procedures. Salvador and Sancho (2023) similarly argue that local governments face systemic crisis environments where contingency planning, analysis, organizational management, and collaboration become important conditions for response. These studies locate turbulence in the local public administration setting.

On this basis, turbulence is treated here as a condition that varies in intensity and scope rather than as a binary state. Garretsen and Stoker (2025) analyze turbulence in terms of scale and scope and recognize variation in its severity and magnitude. Ansell and Trondal's (2018) concept of turbulence of scale further specifies how interactive change may extend across levels and arenas. Lower turbulence refers here to situations in which changes in events, demands, support, information, or response options are comparatively limited in intensity and scope and can be incorporated without substantially revising the framing of the issue or the relevant coordination arrangements. Higher turbulence refers to situations

in which such changes are more disruptive, interact across several arenas, and repeatedly alter the basis for action. This lower-higher distinction is the dissertation's comparative conceptual specification of variation in turbulence rather than a validated scale adopted directly from the cited literature.

Example 2: Shift in demographics

Shift demographics

Demographic change is not turbulent merely because it unfolds over time. If population projections, regulatory assumptions, political support, and expected service implications remain comparatively stable, the issue can be approached through established planning processes. It becomes more turbulent when events, demands, and support interact and change in variable, inconsistent, or difficult-to-predict ways. National regulation may alter the fiscal basis, political support may shift, citizen expectations may intensify, media attention may reframe the issue, or professional organizations may contest the proposed direction while a municipal response is being prepared. The joint strategic work of the mayor and the municipal CEO then includes reassessing the issue framing, the timing and sequencing of political and administrative work, and the feasibility of possible responses.

Taken together, the turbulence and policy-robustness literatures imply that an initial diagnosis cannot be assumed to remain adequate throughout a strategic process. Ansell, Sørensen, and Torfing (2022) specify this response logic by arguing that short-term tactical responses should be connected to longer-term strategic direction and that rapid sensemaking should be balanced with critical reflection.

Applied analytically to the differentiated mayor-municipal CEO relation, this supports a leadership implication of direction combined with selective recalibration rather than either fixed adherence or continual adaptation. As information, demands, political support, and response options change, the strategic dyad may have to revisit interpretations, timing, role expectations, and possible next steps while preserving sufficient political-administrative alignment to carry the issue forward.

Turbulence therefore constitutes the second foreground condition. It specifies the extent to which the basis for action remains stable while strategizing unfolds and, consequently, the extent to which recurrent reassessment and selective recalibration become part of the dyad's strategic work.

2.1.3 Temporal compression and social acceleration

Social acceleration (Rosa 2013; Rosa et al. 2017) is introduced as a broader societal theory that specifies the temporal background against which complexity and

turbulence are encountered. The preceding subsections specify how public leaders encounter complex and changing governance conditions. Rosa's theory adds a vocabulary for understanding why the time available for interpretation, coordination, and response may become compressed.

Rosa's (2013) theory of social acceleration provides the core temporal argument. Acceleration refers to an increase in quantity per unit of time, meaning that more actions, events, decisions, communications, and changes occur within shorter time spans. Rosa distinguishes between technical acceleration, the acceleration of social change, and the acceleration of the pace of life. Technical acceleration concerns the speeding up of communication, transportation, information processing, and production. The acceleration of social change concerns the shortening of the period during which institutions, expectations, knowledge, and practices remain stable. The acceleration of the pace of life concerns the growing number of action episodes that actors try to fit into the same amount of time.

A central contribution to the present argument is Rosa's (2013) account of the contraction of the present. The present refers to the period in which experience and expectations remain sufficiently stable to guide action. When social change accelerates, this period becomes shorter, and previous experience loses its action-guiding stability more quickly. This matters for executive public leadership because strategic work depends on the ability to interpret current conditions, relate them to possible futures, and coordinate action across actors whose expectations may not remain stable for long.

The concept of social acceleration also clarifies why increased process speed does not necessarily create more time for strategic work. Faster communication, faster information flows, and faster administrative processing may increase the number of issues, messages, decisions, and expectations that have to be handled. As a result, speed gains are often absorbed by growing volumes of activity (Rosa 2013). For the mayor and the municipal CEO, temporal pressure may increase even when access to information and communication channels becomes faster. More issues can enter the strategic agenda, more actors can demand a response, and more expectations can arise within shorter periods of time.

A second temporal implication concerns desynchronization. Acceleration does not occur evenly across all social, political, and organizational processes. Political debate, media attention, citizen expectations, administrative analysis, legal assessment, professional preparation, and organizational implementation may operate at different speeds. Rosa (2013) describes this as desynchronization, where actors, organizations, and systems become harder to align because they follow different temporal rhythms. Rosa, Dörre, and Lessenich (2017) extend this argument by introducing the concept of dynamic stabilization. For the present argument, dynamic stabilization reinforces the point that continuity may itself depend on continued movement rather than on an unchanged state. Modern societies maintain stability through continuing growth, technological augmenta-

tion, and innovation rather than through equilibrium. Stability is sustained through movement.

This temporal background changes the conditions under which complexity and turbulence are encountered in executive public leadership. Complexity introduces extensive, heterogeneous, and mutually conditioning relations that have to be interpreted and coordinated. Turbulence means that relevant demands, support, information, and response options may shift while action unfolds. Social acceleration compresses the time available for this interpretive and coordinative work and increases the risk that political, administrative, and organizational processes become desynchronized.

Example 1: Recruitment challenge in elder care

Recruitment challenge in elder care

A recruitment challenge in elderly care may begin as an issue that can be reviewed through demographic projections, labor market data, budget assumptions, and organizational capacity. Under accelerated conditions, the issue may quickly become more demanding. Media attention may increase, citizens' expectations of welfare levels may shift, national policy signals may change the local room for action, NGO and policy organizations may demand faster responses, and internal administrative analysis may still be insufficient. The strategic issue is therefore not only complex because many relations are involved, but also turbulent because conditions change. It is temporally compressed because the mayor and the municipal CEO have to interpret, coordinate, and respond before expectations and conditions have stabilized.

The temporal background is particularly relevant at the political-administrative apex, where the mayor and the municipal CEO occupy differentiated and interdependent roles (Mouritzen and Svara 2002; Svara 1999, 2001). Political attention may require rapid positioning, public communication, and clear political direction, while administrative work may require analysis, legal assessment, organizational preparation, and coordination across service areas. Under social acceleration, these temporal demands may become desynchronized. Applied to the apex relation, this means that strategic work includes coordinating different temporal rhythms within the political-administrative relation.

Social acceleration specifies the temporal background by explaining why complexity and turbulence are encountered under compressed time horizons and uneven temporal rhythms across actors and arenas. For the mayor and the municipal CEO, this makes strategizing a matter of maintaining direction while the time available for interpretation, coordination, and recalibration is compressed.

2.1.4 Implications for executive public leadership

Complexity directs attention to interdependence, partial knowability, multiple interpretations, and unavoidable selection (Duit and Galaz 2008; Klijn and Koppenjan 2016; Luhmann 1995). Turbulence directs attention to dynamic interactive change, shifting demands, and the need to combine continuity with selective recalibration while action unfolds. Social acceleration provides the temporal background by showing how interpretation, coordination, and response take place under compressed time horizons and uneven temporal rhythms (Rosa 2013; Rosa et al. 2017).

Taken together, these literatures clarify why strategic work in municipalities cannot be understood only as the formulation of plans or the implementation of already settled decisions. Strategic issues may involve extensive, heterogeneous, and mutually conditioning relations that cannot be fully grasped or addressed at once (Klijn and Koppenjan 2016). The basis for action may also shift as demands, support, information, political attention, and available response options change (Ansell and Trondal 2018). At the same time, the period in which interpretations and expectations remain sufficiently stable to guide action may become shorter (Rosa 2013).

These implications are particularly salient at the political-administrative apex, where the mayor and the municipal CEO occupy differentiated but interdependent roles (Mouritzen and Svvara 2002; Svvara 1999, 2001). The mayor contributes political mandate, democratic legitimacy, and responsibility for political direction, while the municipal CEO contributes administrative responsibility, organizational knowledge, and managerial capacity. Applied to this differentiated relation, the complexity-leadership literature indicates that formal authority and administrative coordination remain necessary and are connected with interpretive and adaptive work while strategic issues are still being specified (Murphy et al. 2017; Uhl-Bien et al. 2007). Turbulence adds the need for selective recalibration as the basis for action changes, while social acceleration compresses the time available for political and administrative interpretation, coordination, and preparation.

Taken together, the literature discussed here establish why executive public leadership involves interpretation, selection, coordination, and selective recalibration under temporal pressure.

2.2 Public strategy and the political-administrative apex

This section turns to the strategic activity and institutional relation through which that work is carried out. Strategic work in municipalities is both strategic and relational. It is strategic because it concerns direction, prioritization, resource mobilization, and the connection between action and public purposes. It is relational because strategic work at the municipal apex is not performed by a

single executive actor but is situated in the differentiated relation between the elected mayor and the municipal CEO.

The literature on public strategy and strategizing provides the first part of this argument. It clarifies how public organizations connect public purposes, legitimacy, operational capacity, and action. It also shifts attention from strategy as a formal product to strategizing as a situated activity. The literature on the political-administrative apex provides the second part. It clarifies how elected and administrative executives interact through differentiated but interdependent roles, advice, information, trust, accountability, and recurring contact. Read together, these literatures establish the strategic and relational setting for executive public leadership in Danish municipalities.

The section focuses on five strands of research. Public strategy and public value specify the strategic task of public organizations. Strategic planning and strategic management specify how direction can be structured and connected to action over time. Strategic content research specifies how organizations vary in strategic orientation and patterns of action. Strategy-as-practice and strategizing specify strategy as an activity carried by practitioners through tools, interaction, and situated work. Political-administrative apex research specifies the institutional relations in which political and administrative executives interact.

2.2.1 Public strategy and public value

Public strategy research provides insight into understanding how public organizations connect purpose, priorities, resources, legitimacy, and action over time. Classic strategy research conceptualizes strategy as the relation between goals, resources, and organizational action, as alignment between internal and external conditions, as patterns in streams of decisions, and as a practice shaped by actors, contexts, and interpretations (Andrews 1971; Chandler 1962; Mintzberg 1979; Whittington 1996). Public strategy inherits these questions but locates them in settings characterized by democratic authority, public purposes, political legitimacy, administrative feasibility, and stakeholder dependence.

The public value literature specifies the public character of strategy. Moore's (1995) strategic triangle connects public value, legitimacy, support, and operational capacity. The strategic task is not only to define what should be achieved, but to relate public purposes to authorization, support, resources, and organizational action. Hartley et al. (2015) add that public managers' work with public value depends on political astuteness and the ability to operate in the relation between politics and administration. Page et al. (2015) further show that public value creation through collaboration involves substantive outcomes, democratic accountability, and procedural legitimacy, while Cabral et al. (2019) emphasize stakeholder expectations and cross-sector interaction in public and nonprofit value creation.

This literature establishes a central premise for the argument about public strategy. Strategy in public organizations concerns more than plans, priorities, or managerial choice. It concerns how public direction is connected to legitimacy and support, operational capacity, organizational action, and the pursuit of public value. Applied to the municipal setting and combined with the apex literature discussed later, this premise helps explain why political direction, administrative interpretation, organizational capacity, and public purposes meet in the mayor-municipal CEO relation. Within this dissertation, public value functions as the purpose-oriented background against which municipal strategic work is understood; strategic readiness remains the concept examined theoretically and empirically.

Public value and public strategy research therefore provide a general framework for understanding the strategic task of public organizations. Together, they explain why strategy in public organizations is politically and administratively embedded. They give less direct attention, however, to how an elected mayor and a municipal CEO jointly work with strategic issues when issue delimitation, relevant relations, and the basis for action remain unsettled. This moves the discussion toward the more specific strategy literatures considered next.

2.2.2 Strategic planning and strategic management

Strategic planning is one of the most established approaches to strategy in public organizations. It is generally understood as a structured and deliberate process through which organizations define goals, identify strategic issues, allocate resources, and coordinate action over time (Bryson 2017; Bryson and George 2020). Strategic planning contributes to public strategy research by demonstrating how public organizations can make direction explicit, establish shared priorities, and link current decisions to future outcomes.

Strategic management research extends this argument by connecting strategic formulation to implementation, performance, learning, and organizational adaptation. Bryson and George (2020) emphasize that public strategy encompasses concepts, processes, procedures, tools, techniques, and practices that guide how public organizations operate strategically. George et al. (2019) find a positive, moderate, and significant overall association between formal strategic planning and organizational performance, with the strongest association for effectiveness outcomes. Vandersmissen, George, and Voets (2022) further show that strategic planning is indirectly and positively associated with managers' and citizens' perceptions of performance through its effect on external relations.

This literature contributes to a structural and temporal understanding of strategic work. It shows how public organizations can identify strategic issues, formulate priorities, sequence action, and connect strategy to implementation. It also clarifies why strategic work is not only about isolated decisions. Direction

must be sustained over time, translated into organizational processes, and adjusted through learning.

The limitation follows from the literature's primary analytical emphasis rather than from an assumption that planning is static. Contemporary strategic planning and strategic management incorporate iteration, learning, and adaptation. Their central contribution, however, is to explain how identifiable strategic issues and articulated priorities can be organized, implemented, and followed up. Under complexity and turbulence, issue delimitation, interpretation, and the basis for action may themselves remain unsettled while strategic work unfolds. Planning therefore remains part of strategic work, but it does not by itself specify the situated and relational activity through which executive actors form and revise direction before and alongside formal planning and implementation.

2.2.3 Strategic content and strategic orientation

The literature on strategic content shifts attention from planning processes to the orientations and patterns of action through which organizations relate to their environments. Boyne and Walker (2004) distinguish strategic stance—prospecting, defending, and reacting—from strategic actions concerning services, revenues, external relationships, and internal organization. Andrews et al. (2009, 2011) examine how these strategic orientations, together with strategy formulation and implementation, relate to public-service performance.

This literature shows that strategic work is not only a matter of having plans or planning procedures. It also concerns the pattern of action by which an organization positions itself, responds to its environment, seeks opportunities, protects established activities, or adapts to pressure. Strategic content research therefore makes strategy more empirically concrete by specifying organizational orientations and action patterns.

In line with this literature, municipalities not only formulate plans; they also display patterns of strategic action and response. They may emphasize a defending stance to preserve established activities, a prospecting stance to seek new possibilities, reactive responses under pressure, or combinations of these stances and different implementation approaches.

The limitation is that strategic content research usually locates strategy at the organizational level. It provides less direct language for the relational work through which strategic orientation is formed at the political-administrative apex. It helps explain organizational patterns of action, but it does not by itself specify how the mayor and the municipal CEO jointly interpret strategic issues, align political and administrative expectations, develop possible directions, and carry direction forward together.

2.2.4 Strategy-as-practice and strategizing

Strategy-as-practice shifts attention from strategy as a plan, document, or organizational stance to strategy as a situated activity. Jarzabkowski and Paul Spee (2009) specify strategy-as-practice as a relationship between praxis, practices, and practitioners. Praxis refers to the flow of activity through which strategy is performed. Practices refer to the tools, routines, procedures, discourses, and methods used in strategic work, and practitioners refer to the actors who carry out strategy. Vaara and Whittington (2012) develop the same perspective by emphasizing that strategy is socially accomplished through activities, interactions, material arrangements, and institutional contexts.

For the present dissertation, this activity orientation makes it possible to examine not only what is decided, but how issues are interpreted, how actions are coordinated, and how direction is formed, revised, and carried forward over time. It also accommodates the relational and practical forms through which strategic work connects organizational and political arenas.

This perspective is important for this study. Public organizations not only have strategies, but they also strategize. Strategic work is performed through meetings, interpretations, tools, conversations, framings, role negotiations, documents, routines, and situated judgments. Bryson et al. (2010) show how public strategic work involves designing and using strategy tools and practices in context. George and Bryson (2025) further specify strategizing as a concept in public management and emphasize that it concerns the activities through which public actors engage in strategic issues.

Strategizing provides an activity-oriented language. It allows strategic work to be examined in terms of not only what is decided, but also in terms of how issues are interpreted, how attention is structured, how action is aligned, and how direction is sustained over time. It also makes room for the relational and practical forms through which strategy involves organizational and political arenas.

The strategy-as-practice literature also leaves a more specific task for this dissertation. It opens the black box of strategy but does not by itself locate the focal strategizing in a particular institutional relation. Because the perspective can encompass broad constellations of practitioners, routines, tools, and situated activities, the municipal setting requires a narrower specification of the focal practitioners and their relation. In this study, the mayor and the municipal CEO constitute the focal political-administrative pair, while wider political and administrative actors enter the practices through which their strategic work is developed and carried forward.

2.2.5 The political-administrative apex

Classic political-bureaucratic research shows that politicians and senior bureaucrats both participate in policymaking while contributing different forms of

authority, judgment, and knowledge. In ideal-typical terms, politicians connect policy to political purposes, constituencies, and democratic accountability, whereas senior bureaucrats contribute expertise, policy interpretation, administrative feasibility, and organizational continuity (Aberbach et al. 1981).

The complementarity perspective develops this argument by rejecting a strict politics-administration dichotomy. Svvara (1999, 2001) argues that elected and administrative officials have distinct responsibilities but that their work is interdependent and mutually influential. Mouritzen and Svvara (2002) locate this relation at the apex of local government and show how political and administrative leadership are connected in different local government systems. This literature is important because it frames the mayor-municipal CEO relation as both differentiated and cooperative. The mayor and the municipal CEO do not perform the same role, but municipal direction depends on their interaction.

A second debate concerns information, advice, delegation, and accountability. Principal-agent theory provides a general lens for analyzing delegation, information asymmetry, monitoring, and political control in relations between elected principals and administrative agents (Miller 2005). McCubbins et al. (1987) show how administrative procedures can operate as instruments of political control when direct observation is limited. Blom-Hansen, Baekgaard, and Serritzlew (2021) show how policy information supplied by bureaucrats can shape political preferences and decisions. Baekgaard, Blom-Hansen, and Serritzlew (2022) show that politicians' views of top bureaucrats vary across classical role images and relational dimensions, including trust, loyalty, and reliance on information. Applied to the municipal apex, these contributions underline that strategic work is shaped by political authorization as well as by administrative information and interpretation.

A third debate concerns the relational continuity of political-administrative cooperation. The mayor-municipal CEO relation is a durable and institutionally embedded relation centered on recurring interaction, mutual expectations, informal understandings, formal roles, and ongoing adjustment (Mouritzen and Svvara 2002; Svvara 1990, 1999, 2001). Macneil's (2000) relational-contracting perspective provides a vocabulary for understanding why recurrent exchange relations cannot be exhausted by complete contracts or isolated transactions but depend on reciprocity, role integrity, flexibility, and mutuality. Bertelli and Smith (2010) apply this logic to public network management, while Nwajei (2021) synthesizes its use in settings characterized by uncertainty, repeated interaction, and ongoing adjustment. The perspective is used here in a deliberately limited way. Its contribution is the relational vocabulary of reciprocity, role integrity, flexibility, and adjustment over time; the mayor-municipal CEO relation is not treated as a literal contractual arrangement.

Danish municipal research adds contextual precision. Storgaard and Hansen (2022) identify both divided and overlapping task areas in the mayor-municipal CEO relation and substantial variation between municipalities. The reports by

Agerbo, Højberg, and Madsen (2022) and Højberg and Madsen (2023) add role-specific evidence from municipal CEOs and mayors concerning task division, administrative advice, information, trust, and recurring interaction.

These literatures do not overlook joint political-administrative work. Their primary analytical vocabularies, however, concern roles, tasks, information, advice, accountability, and the relational maintenance of cooperation rather than the mayor and the municipal CEO as a joint unit of strategizing. The question in this dissertation is more specific. It concerns how the mayor and the municipal CEO work together when strategic issues are not already bounded, when extensive and mutually conditioning relations have to be selected and coordinated, when the basis for action changes over time, and when direction itself has to be interpreted, developed, aligned, and carried forward in practice.

Taken together, these perspectives specify the apex as more than a set of formal role descriptions. It is an enduring working relation through which political and administrative interpretations are connected in recurring municipal processes. Complementarity, principal-agent theory, relational contracting, and Danish municipal studies explain why the political-administrative apex is differentiated, interdependent, and asymmetrical, and how it is sustained, though not fully stabilized, through recurring interaction. They explain how roles are distributed, how information and advice shape political decision-making, how accountability and delegation matter, and how cooperation can be maintained despite asymmetry and incomplete specification.

2.2.6 Summary on public strategy and the political-administrative apex

The literature discussed in this section establishes two connected propositions. First, executive public leadership is strategic. Public strategy, public value, strategic planning and management, strategic content, and strategy-as-practice show that public organizations work with public purposes, legitimacy, operational capacity, priorities, patterns of action, and situated strategic activity. Strategic work is therefore not reducible to formal plans or isolated decisions; it also includes the activities through which direction is interpreted, enacted, revised, and carried forward.

Second, executive public leadership at the municipal apex is relational. Political-administrative research locates the mayor and the municipal CEO in differentiated but interdependent roles. The mayor contributes political authority, democratic legitimacy, and political judgment, while the municipal CEO contributes administrative responsibility, organizational knowledge, expertise, and continuity. Their relation is shaped by complementarity and asymmetry, as well as by information, advice, accountability, trust, task division, and recurring interaction.

These propositions meet at the municipal apex. Public-strategy research specifies the character of the strategic work, while apex research specifies the institutional relation in which the focal executive actors interact. Read together, they locate municipal strategizing in an enduring political-administrative working relation in which political direction, administrative knowledge, organizational capacity, and public purposes are brought into relation.

Existing research therefore provides strong accounts of public strategy and of the political-administrative apex. It gives less direct conceptual specification of the recurring joint strategizing through which the mayor and the municipal CEO work on strategic issues whose framing, relevant relations, and basis for action remain unsettled.

2.3 Leadership training and joint strategizing

Leadership training enters the theoretical argument as the literature that establishes the general plausibility of structured leadership interventions and specifies design, transfer, contextual, and rating-source considerations relevant to the later causal argument. The literature discussion does not directly establish that training the mayor-municipal CEO dyad changes strategic readiness. Instead, it provides four building blocks. First, general leadership-training research establishes training as a structured intervention associated, on average, with learning, transfer, leadership behavior, and organizational results. Second, design and transfer research specifies how needs analysis, multiple delivery methods, practice, feedback, temporal distribution, workplace support, and opportunities for application condition whether training becomes consequential in practice. Third, public-sector leadership-training and self-other agreement research show that institutional context and rating position matter for how training-related change is assessed. Fourth, relational leadership, team-based intervention, and action-learning research provide design resources for training directed at joint strategizing. These literatures provide the intervention-side foundation.

2.3.1 Leadership training as a structured intervention

Leadership training is an established intervention form for developing leadership in organizations. Day et al. (2021) distinguish leadership training from leadership development. Leadership training consists of systematic learning initiatives directed at specific, job-relevant knowledge, skills, and attitudes, whereas leadership development addresses broader and more adaptive challenges through longer-term and more varied developmental activities. The distinction matters because leadership training has a bounded intervention logic: it concerns deliberately designed learning activities intended to influence how leadership is enacted in work practice.

The dissertation retains leadership training as the intervention label because the program is bounded, scripted, organized around specified learning activities,

and examined as a delimited intervention. At the same time, the program incorporates developmental elements, including experiential work, feedback, reflection, repeated application, and work with open-ended strategic issues. The distinction between training and development is therefore used analytically rather than as a claim that the intervention belongs exclusively to one category.

The cumulative evidence establishes leadership training as a plausible, but not uniformly effective, intervention form. Lacerenza et al. (2017) synthesize in a meta-analysis leadership-training evaluations and report positive average effects across reactions, learning, transfer, and results, while also showing substantial variation associated with program design, delivery, and implementation. Day et al. (2021) translate this evidence into guidance concerning the selection, design, delivery, and evaluation of leadership-training and development initiatives.

Public sector studies provide more context-specific evidence. Seidle et al. (2016) examine a multifaceted public sector program combining classroom instruction, coaching, feedback, and experiential learning and report improvements in leader performance and organizational effectiveness. Danish field experiments add evidence based on employee ratings. An et al. (2019) show that employee-perceived changes in trained leadership behavior vary by sector and training type, while An et al. (2022) show that leadership training can narrow differences between leaders' self-assessments and employees' assessments of leadership in public organizations.

Taken together, this literature establishes the general plausibility of leadership training as an intervention that can influence learning, behavior, transfer, and organizational results. It does not establish that all programs work equally well or that leadership training necessarily changes joint strategizing or strategic readiness. Those more specific links depend on the object of training, program design, transfer conditions, and the causal argument developed later in the dissertation.

2.3.2 Design, transfer, and transfer-oriented learning

Leadership-training research specifies design features associated with stronger outcomes, although the associations differ across outcome categories. Lacerenza et al. (2017) find that needs analysis and multiple delivery methods are associated with stronger training outcomes. Programs combining information-, demonstration-, and practice-based methods display stronger learning and transfer than programs relying on narrower delivery formats. Feedback significantly strengthens transfer, and programs distributed across several sessions display stronger transfer and results than massed formats, although temporal spacing does not necessarily strengthen immediate learning. Day et al. (2021) translate these findings into recommendations concerning needs analysis, demonstrations, guided practice, constructive feedback, and organizational conditions that support application.

This design argument is important for training directed at apex strategizing. The training object is not abstract leadership knowledge. It is how the mayor and the municipal CEO grasp and address strategic issues in a municipal setting. Practice-nearness and transfer orientation concern the same design problem from two sides. Practice-nearness concerns the material of training and transfer-orientation concerns the movement from the training setting back into ordinary work. Leadership training becomes relevant for apex strategizing when strategic issues from municipal practice enter the training setting, and when work from the training setting is relevant to the apex's ordinary work with strategic issues.

Transfer research specifies the conditions under which learning enters and remains part of work practice. Baldwin and Ford (1988) organize these conditions around trainee characteristics, training design, and the work environment. Blume et al. (2010) find positive associations between transfer and characteristics such as ability and motivation as well as a supportive work environment. Grossman and Salas (2011) further identify realistic training design, transfer climate, managerial and peer support, opportunities to perform, feedback, and follow-up as recurring transfer conditions. McCracken et al. (2012) provide qualitative public sector evidence showing how organizational training climate can support or inhibit participation and transfer. Together, these contributions locate transfer in the relation between the participant, the intervention, and the work setting rather than in the training event alone.

The temporal argument is supported at two levels. Getha-Taylor et al. (2015) show in an evaluation of a local-government leadership-development program that self-assessed conceptual and interpersonal leadership skills may follow different post-program trajectories and may not be maintained equally over time. Donovan and Radosevich (1999) provide a broader, non-leadership-specific learning basis for distributed practice by showing an average advantage of spaced over massed practice, while also indicating that the size of this advantage varies with task characteristics. These findings support, but do not by themselves validate, a design in which learning is distributed across time and repeatedly reconnected to work practice.

Applied to this study, design and transfer research supports a training logic that is repeated, practice-near, feedback-based, and oriented toward application in municipal work. These literatures provide design rationales for the planned program in this study.

2.3.3 Public sector leadership training and respondent position

Public sector leadership-training research adds two considerations: institutional context and rating source. Seidle et al. (2016) locate leadership training in a public-sector organizational setting, while An et al. (2019, 2022) show that training-related change can be examined through both leader self-ratings and employee

ratings and that results may vary by sector, leadership form, and rating source. These studies concern leadership behavior rather than joint strategizing, but they establish that assessments from positions beyond the trained leader can form part of the empirical evaluation of leadership training.

Self-other agreement research provides the broader basis for treating rating source analytically. Lee and Carpenter (2018) show that agreement between leader self-ratings and observer ratings varies across observer groups and leadership forms. Nielsen et al. (2022) further show that self-other agreement influences how leaders and followers report change following leadership training and that leaders and followers may identify different patterns of improvement. The contribution of this literature is therefore not to privilege one rating source as objectively correct, but to show that rating position shapes what is reported or perceived.

Applied to this dissertation, the mayor and the municipal CEO provide separate reports from positions within the strategic dyad, whereas directors and city councilors assess the dyad's strategizing from distinct administrative and elected-political positions outside the dyad but within wider municipal practices. The training and self-other agreement literatures support treating these rating positions as analytically consequential rather than interchangeable. The specific distinction between the strategic dyad, directors, and city councilors follows from the institutional architecture of the municipal setting and is the dissertation's own respondent-specific distinction.

The distinction is therefore not between a true internal account and less valid external perceptions. Reports from within the dyad and perceptions from directors and city councilors provide access to different positions in relation to the dyad's strategizing. Whether they converge is an empirical question rather than an assumption built into the measurement design.

2.3.4 Relational, collective, and action learning orientations in leadership training

A further contribution concerns the level and form of leadership toward which development is directed. Day (2000) distinguishes leader development from leadership development. Leader development primarily concerns the development of individual human capital, whereas leadership development concerns the expansion of collective capacity and social capital through relations and interaction. This distinction provides a conceptual basis for moving from individual leadership behavior toward the relations through which leadership is enacted.

The public leadership literature specifies this relational leadership object. Building on the discussion in Section 2.1.1, Murphy et al. (2017) show that leadership in complex public-sector systems connects administrative alignment with adaptive and interactive practices across actors and organizational boundaries. Their contribution here is not evidence about training effects but a theoretical

basis for directing an intervention toward interaction, coordination, and situated complexity rather than toward individual leader attributes alone.

Public sector intervention research provides a closer empirical bridge. Grøn et al. (2024) examine a ten-month interorganizational team-based leadership-training program directed at shared direction, alignment, and commitment across organizational boundaries. The intervention has positive effects on relational coordination, structural coordination mechanisms, and overall collaborative quality as assessed by participating managers and frontline managers, but not by frontline employees. The study shows that leadership training can be directed at collective coordination and collaboration and that assessed effects may differ across respondent positions.

Action-learning research provides didactic resources for practice-near training. Marsick and O'Neil (1999) distinguish several schools of action learning but identify learning through engagement with consequential problems, action, inquiry, and reflection as a recurring orientation. Pedler and Burgoyne (2015) treat real work tasks as vehicles for learning supported by challenge and reflection with others. Gold and Pedler (2022) further show how action learning can connect research and practice. These contributions support the use of strategic issues from municipal practice as learning material and the organization of learning through questioning, reflection, action, and renewed action.

Taken together, these literatures provide design resources. Applied in this dissertation, the mayor and the municipal CEO are specified as the primary learning unit, strategic issues from municipal practice are specified as the training material, and interaction, reflection, feedback, adjustment, and repeated case work are specified as learning processes.

2.3.5 Summary on leadership training

The leadership-training literature contributes four points to the theoretical argument. First, it establishes leadership training as a structured intervention associated, on average, with learning, transfer, leadership behavior, and organizational results, while also showing that effects vary with design, delivery, implementation, context, and outcome. Second, design and transfer research shows that training becomes consequential for practice through the relation among participant characteristics, training design, repeated and varied learning activities, feedback, workplace support, opportunities for application, and maintenance over time. Third, public-sector leadership-training and self-other agreement research show why institutional context and rating position must be considered when training-related change is assessed. Fourth, relational leadership, team-based intervention, and action-learning perspectives provide design resources for training directed at interaction, coordination, collaboration, real strategic problems, reflection, and renewed action. Together, these contributions provide the intervention-side literature basis for the dissertation. They establish the general

plausibility of leadership training, specify conditions relevant to transfer, and provide resources for designing relational and practice-near learning.

2.4 Summary of literature and bridge to strategic readiness

The literature discussion in this chapter establishes four connected premises, each performing different functions in the dissertation's theoretical architecture.

The first premise concerns the conditions of executive public leadership. Complexity foregrounds the range and configuration of interdependencies, interpretive differences, and institutional arrangements that make selection and coordination unavoidable. Turbulence foregrounds dynamic interactive change and the extent to which the basis for action remains stable while strategic work unfolds, thereby making continuity and selective recalibration part of the leadership problem. Social acceleration provides the temporal background by specifying how interpretation, coordination, and response take place under compressed time horizons and uneven temporal rhythms. Taken together, these literatures show why formal authority, planning, and administrative coordination remain necessary but do not exhaust the strategic work required at the municipal apex.

The second premise concerns public strategy and strategizing. Public strategy and public value research specify the public purposes of strategy and the relation between direction, legitimacy and support, operational capacity, and organizational action. Strategic planning and strategic management specify structured processes through which direction can be articulated, connected to implementation, and carried forward over time. Strategic content research specifies patterns of organizational orientation and action. Strategy-as-practice adds an activity-oriented perspective by directing attention to strategizing as situated work performed through practitioners, tools, routines, interaction, and judgment. Together, these literatures provide the strategic and activity-oriented vocabulary for examining how issues are interpreted, action is organized, and direction is carried forward in practice.

The third premise concerns the political-administrative apex. Research on politics and administration locates executive municipal leadership in a differentiated and interdependent relation between the mayor and the municipal CEO. Complementarity, principal-agent theory, relational contracting, and Danish municipal research specify how political authority and administrative responsibility are connected through information, advice, accountability, trust, task division, recurring interaction, and ongoing adjustment. This literature provides the institutional basis for examining executive strategizing while preserving the differences between the two roles. It gives less direct conceptual specification, however, of the mayor and the municipal CEO as one relational unit when their joint strategizing is examined.

The fourth premise concerns leadership training. Leadership-training research establishes the general plausibility of structured leadership interventions

while showing that outcomes vary with design, delivery, implementation, context, and the type of outcome examined. Design and transfer research specifies how practice, feedback, temporal distribution, workplace support, opportunity for application, generalization, and maintenance condition whether learning enters work practice. Public-sector training and self-other agreement research further show that institutional context and rating source are analytically consequential. Relational, collective, team-based, and action-learning perspectives provide design resources for training directed at interaction, coordination, collaboration, consequential problems, feedback, reflection, and renewed action.

Table 2.1 condenses these contributions and their theoretical implications. The condition literature specifies the governing conditions and temporal background. Public-strategy research provides the public and activity-oriented language of strategizing. Apex research provides the institutional basis for specifying the focal relational unit. Leadership-training research provides the intervention-side evidence and design resources used in the later causal and operational chapters. Read together, these literatures establish the theoretical materials and the conceptual task from which strategic readiness is developed.

Table 2.1: Literature contributions and theoretical implications

Literature discussion	Contribution to the theoretical argument	Theoretical implication for this dissertation
Complexity, turbulence, and social acceleration	Complexity specifies the range and configuration of interdependencies, interpretive differences, and institutional arrangements that create selection and coordination problems. Turbulence specifies dynamic interactive change and variation in the stability of the basis for action. Social acceleration specifies temporal compression and uneven temporal rhythms.	Specifies the foreground conditions and temporal background under which executive public strategizing is examined. These conditions do not define strategic readiness but specify the situation in relation to which it is developed.
Public strategy and strategizing	Public strategy and public value specify public purposes, legitimacy and support, operational capacity, direction, planning, implementation, and patterns of organizational action. Strategy-as-practice specifies strategizing as situated activity performed through practitioners, tools, routines, interaction, and judgment.	Provides the public-strategy context and the activity-oriented entry point for conceptualizing executive strategizing.
Political-administrative apex	Apex research specifies differentiated and interdependent roles, complementarity, political authority, administrative responsibility, information, advice, accountability, trust, task division, recurring interaction, and ongoing adjustment. Danish municipal research situates these relations in local government.	Provides the institutional basis for specifying the mayor-municipal CEO relation as the focal relational unit of executive strategizing while preserving role differentiation.
Leadership training	Leadership-training research establishes the general plausibility of structured interventions and specifies relevant design, transfer, public-sector, rating-source, relational, collective, and action-learning considerations.	Provides the intervention-side foundation for theorizing the causal relation in Chapter 4 and operationalizing the planned leadership training program in Chapter 5.

3. Strategic readiness: Strategizing at the political-administrative apex

This chapter develops strategic readiness as the dissertation's central concept. Strategic readiness is defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. The concept is developed for examining joint strategizing at the political-administrative apex under complexity and turbulence, with social acceleration as the temporal background. The chapter's conceptual contribution lies in specifying the activity, relational unit, dimensional content, and orienting architecture of strategic readiness.

The conceptual task is to specify the form of joint strategic work through which the mayor and the municipal CEO seek to make strategic issues sufficiently intelligible, align action, develop possible directions, and sustain direction under complexity and turbulence.

Building on the literature discussed in Chapter 2, the chapter develops the concept in four steps. First, it specifies strategizing as the interconnected, ongoing, and relational activities through which practitioners think, act, and learn strategically. Second, it specifies the strategic dyad as the focal relational unit within which joint strategizing is examined. The strategic dyad preserves the institutional differentiation between the mayor and the municipal CEO while making their joint strategizing the focal object. Third, the chapter specifies the dimensional structure of strategic readiness. Systematic, coordinated, and collaborative strategizing constitute the conceptual content of strategic readiness. Fourth, the chapter introduces strategic horizons as the orienting architecture of the concept. Strategic horizons specify how the dyad's systematic, coordinated, and collaborative strategizing is oriented when strategic issues are grasped and addressed through different combinations of future knowability and issue-specific organizational readiness. The definition is stated at the outset for orientation. The sections that follow develop and justify its activity, relational unit, dimensional content, and orienting architecture in sequence.

The chapter concludes by consolidating the conceptual definition of strategic readiness and clarifying the relation between its dimensions and its horizon-oriented specification. Systematic, coordinated, and collaborative strategizing define what strategic readiness is. Strategic horizons specify how this strategizing is oriented under complexity and turbulence.

3.1 From strategy to strategizing

Chapter 2 established two complementary points. Public strategy concerns articulated direction, while strategic work also unfolds as situated activity. The first

step in developing strategic readiness is therefore to distinguish strategy from strategizing and to specify strategizing as the activity component of the concept.

Strategy refers here to articulated expressions of direction, including plans, priorities, policy programs, strategic decisions, and formal management processes. Strategic planning and strategic management explain how public organizations can formulate direction, connect priorities to resources, organize implementation, and carry strategic work forward over time (Bryson 2017; Bryson and George 2020). Public value research further locates this direction in the relation between public purposes, legitimacy and support, and operational capacity (Moore 1995). These contributions remain important because plans, priorities, and formal processes provide reference points through which direction can be communicated and organized.

Strategizing shifts the analytical focus from articulated direction to the activity through which direction is formed, enacted, revised, and carried forward in practice. Strategy-as-practice research examines the actions, interactions, negotiations, tools, routines, judgments, and material arrangements through which strategic work is accomplished in organizational life (Jarzabkowski and Spee 2009; Vaara and Whittington 2012; Whittington 1996). George and Bryson (2025) provide the immediate public-management point of departure by conceptualizing strategizing as interconnected activities through which practitioners engage in ongoing strategic thinking, acting, and learning.

The present dissertation draws on this activity-level understanding but develops a more specific theoretical object. Strategizing is understood here as the interconnected, ongoing, and socially situated activities through which practitioners think, act, and learn strategically as they seek to make strategic issues sufficiently intelligible and to develop, enact, revise, and carry direction forward in practice. This definition concerns the activity of working strategically.

The interpretive component is central to this activity. Strategic issues are not necessarily available as fully specified objects before action begins. Actors may have to work out what the issue is, why it matters, whom it concerns, and which possible directions warrant further attention. Weick, Sutcliffe, and Obstfeld (2005) show how actors turn unfolding circumstances into sufficiently comprehensible situations that can provide a basis for action. Applied here, sensemaking supports the argument that strategizing includes interpretive work through which strategic issues become sufficiently intelligible and actionable. Sensemaking does not exhaust strategizing, which also includes strategic acting and learning as interpretations and possible directions are tested in practice.

The strategy-as-practice distinction between practitioners, praxis, and practices helps specify the structure of this activity (Jarzabkowski and Spee 2009; Vaara and Whittington 2012; Whittington 1996). Practitioners are the actors who perform or seek to influence strategic work. Praxis is the situated flow of activity through which strategy is accomplished. Practices are the social, symbolic, and material resources—including tools, routines, procedures, meetings, and

discourses—through which strategic work is performed and organized. The distinction therefore connects actors, situated activity, and the resources through which that activity is organized and connected to wider organizational arenas.

Strategizing therefore provides the activity component of strategic readiness. It specifies what is being performed: interconnected strategic thinking, acting, and learning through which issues and possible directions are worked on in practice.

Example 2: Municipal budget pressure II

Municipal budget pressure II

A municipality may have a formal budget process, financial targets, political procedures, and administrative routines for preparing budget decisions. These provide articulated direction and structured reference points. Strategizing concerns the additional activity through which budget pressure is interpreted as a strategic issue, relations and consequences are considered, possible directions are developed and revised, and the issue is prepared for movement through administrative and political arenas. The example illustrates why formal strategy and strategizing are analytically related but not identical.

3.2 The strategic dyad as the focal relational unit

Specifying strategizing as an activity does not by itself determine which practitioners or which relation should constitute the focal object of inquiry. Strategy-as-practice can encompass broad constellations of actors, tools, routines, and organizational arenas. The conceptual task in this section is therefore to identify the focal relation through which executive strategizing is examined at the municipal apex.

As discussed in chapter 2, the mayor and the municipal CEO are central for the strategic work in the municipality. The political-administrative apex denotes this institutional relation, whereas the strategic dyad denotes the same relation treated as the focal relational unit when their joint strategizing is examined. The move from apex to strategic dyad therefore changes the analytical foreground, not the institutional composition of the relation. Section 3.2.1 establishes the institutional basis of the relation. Sections 3.2.2–3.2.4 specify three relational processes that illuminate how joint strategizing can be enacted within it. Section 3.2.5 consolidates the strategic dyad as the focal relational unit and relates dyadic praxis to wider municipal practices.

3.2.1 From a differentiated apex to the strategic dyad

Political-administrative research provides the institutional basis for specifying the mayor and the municipal CEO as a focal relation of executive strategizing. The

literature establishes this basis in three connected respects: differentiation, interdependence, and relational continuity.

First, complementarity and classic political-bureaucratic research establish that elected and administrative executives contribute different forms of authority, responsibility, knowledge, and judgment to public governing. The mayor carries political mandate, democratic accountability, and responsibility for political direction, while the municipal CEO contributes administrative responsibility, professional expertise, organizational knowledge, advice, and administrative continuity (Aberbach et al. 1981; Mouritzen and Svvara 2002; Svvara 1999, 2001). Their relation is therefore differentiated without being separable.

Second, principal-agent and information-based perspectives specify the asymmetry and interdependence of the relation. Political executives delegate administrative tasks and depend on information, interpretation, and implementation knowledge that they cannot fully observe or reproduce. Administrative executives operate under political authorization and accountability while possessing informational and professional resources that shape how political problems and possible responses are understood (McCubbins et al. 1987; Miller 2005). Danish studies further show that bureaucratic information can influence political judgment and that politicians rely on policy-relevant information from administrative actors (Baekgaard et al. 2022; Blom-Hansen et al. 2021).

Third, relational-contracting and Danish municipal research specify the continuity and incomplete formal specification of political-administrative cooperation. Recurring interaction, mutual expectations, role integrity, flexibility, trust, and ongoing adjustment supplement formal role descriptions when interdependent work cannot be fully specified in advance (Bertelli and Smith 2010; Macneil 2000; Nwajei 2021). Danish municipal studies locate these features in the mayor-municipal CEO relation through broad administrative advice, information exchange, trust, divided and overlapping task areas, and recurring interaction around municipal issues (Agerbo et al. 2022; Højberg and Madsen 2023; Storgaard and Hansen 2022).

Taken together, these literatures establish the mayor-municipal CEO relation as differentiated without being separable, asymmetrical without being reducible to unilateral control, and enduring without being fully specified in advance. These properties provide the institutional basis for treating the relation itself as relevant to executive strategizing. Political direction, administrative knowledge, organizational capacity, and possible action do not enter strategic work independently. They are connected through a recurring relation between two institutionally differentiated executive positions.

The move from the political-administrative apex to the strategic dyad is therefore a change in analytical foreground. The political-administrative apex identifies the institutional location in which political authority and administrative responsibility meet and specifies the differentiated roles, mandates, and

accountability relations of the two executive actors. The strategic dyad designates the same two actors and the same institutional relation as the focal relational unit when their joint strategizing is examined. The move does not introduce a new organizational body or merge the two executive roles. It directs attention to how their differentiated contributions become related within strategic work.

On this basis, the strategic dyad is defined as the mayor and the municipal CEO treated as the focal relational unit when their joint strategizing is examined. Joint strategizing means that the interpretations, judgments, timing, and actions of each actor become relevant to the other within the same strategic process, while maintaining their differentiated authority and responsibility.

Having specified the institutional basis and the focal relational unit, the next theoretical question concerns how joint strategizing can be enacted within this differentiated relation. The following subsections develop three relational processes: shared orientation toward a common strategic concern, relational coordination across differentiated roles and contributions, and responsive interaction through which meaning and possible direction may emerge. These processes can be present to different degrees. They specify how joint strategizing may be enacted within the strategic dyad.

3.2.2 Shared orientation in a differentiated relation

Shared orientation specifies the common object of joint strategizing. It concerns whether the mayor and the municipal CEO treat a strategic issue as a concern that requires work across their differentiated roles. Shared orientation does not imply that the two actors hold identical diagnoses, preferences, or preferred solutions. It means that the issue becomes a common object around which political and administrative contributions are brought into relation.

Stewardship theory supports the shared-orientation element. Davis, Schoorman, and Donaldson (1997) shift attention to actors who orient their work toward collective and organizational purposes. Hernandez (2012) develops stewardship as a form of responsibility for the long-term welfare of a collective entity. Cunha et al. (2021) further treat stewardship as relational and processual, emphasizing how responsibility and collective orientation are formed and sustained through interaction. The relevance to the strategic dyad lies in how institutionally differentiated actors can orient their distinct roles toward a shared strategic concern.

Shared orientation is formed through strategizing. A strategic issue becomes a joint object of attention, interpretation, and possible direction when both actors orient their distinct roles toward it as a common strategic concern. The mayor may initially approach an issue through political salience, public legitimacy, electoral responsibility, or room for political action. The municipal CEO may approach the same issue through administrative feasibility, organizational consequences, legal constraints, or implementation capacity. Shared orientation is

formed when these different entry points are connected around the issue as a common strategic concern.

Shared orientation matters for the strategic dyad because joint strategizing requires a common object of work. The dyad's recurring work with an issue depends on such shared orientation because roles, expectations, and possible directions are developed around an issue that both actors treat as strategically relevant. Shared orientation therefore specifies the first relational process through which joint strategizing may be enacted within the strategic dyad: differentiated roles are oriented toward a common strategic concern.

Example 5: Municipal budget pressure III

Municipal budget pressure III

The mayor may approach budget pressure through political priorities, distributional consequences, and the public legitimacy of difficult decisions. The municipal CEO may approach the issue through fiscal projections, legal requirements, administrative feasibility, and organizational capacity. Shared orientation, on the other hand, focuses on approaching it as a joint strategizing task rather than as two parallel interpretations. The dyad can then work on what the issue means for municipal direction, which consequences require attention, which actors should be involved, and what dialogues to initiate in the organization.

3.2.3 Relational coordination as ongoing alignment

Relational coordination concerns how differentiated contributions are aligned once a strategic issue has become a common object of work. It concerns how expectations, knowledge, roles, timing, and action are connected through recurring interaction without removing the institutional differences between the mayor and the municipal CEO.

Gittell (2001) defines relational coordination as a mutually reinforcing process of communication and relationships for the purpose of task integration. The concept connects relational qualities, such as shared goals, shared knowledge, and mutual respect, with communication qualities, such as frequent, timely, accurate, and problem-solving communication. Later work extends this argument by showing how relational coordination supports coordination across interdependent roles, tasks, and professional boundaries (Bolton, Logan, and Gittell 2021; Gittell 2001).

The relevance for the strategic dyad lies in the interdependence between political and administrative work. The mayor and the municipal CEO hold distinct positions, and strategic work at the apex connects political interpretation, administrative knowledge, organizational consequences, political priorities, timing, and action. Strategic direction moves between political arenas, administrative

processes, and wider municipal practice. Relational coordination specifies how this alignment is formed through recurring interaction.

Relational coordination adds a temporal and practical dimension to the strategic dyad. Shared orientation gives the mayor and the municipal CEO a common strategic concern. Relational coordination regards how they keep that concern workable as the issue develops. Strategic issues under complexity and turbulence may change as new information appears, as political reactions emerge, as administrative assessments develop, and as organizational capacity becomes clearer. The dyad's strategizing proceeds through recurring interaction in which interpretations, expectations, timing, and possible next steps are adjusted in relation to one another.

The alignment element becomes clearer when the budget issue moves toward administrative preparation and political timing. The mayor may consider political priorities, public legitimacy, coalition dynamics, and the timing of political decisions. The municipal CEO may consider fiscal projections, legal requirements, administrative feasibility, and organizational consequences. Relational coordination is expressed when these forms of knowledge and responsibility are aligned through recurring interaction. The dyad works on when political discussion begins, which administrative analyses are needed, which actors are involved, how the issue moves through formal arenas, and how direction is sustained while the issue develops.

Relational coordination specifies the second relational process through which joint strategizing may be enacted within the strategic dyad: ongoing alignment across differentiated roles, knowledge, expectations, timing, and action. It specifies how the differentiated roles of the mayor and the municipal CEO are connected through communication, shared knowledge, mutual respect, and ongoing adjustment. This makes joint strategizing possible because strategic issues can be carried across political and administrative perspectives without losing their strategic direction.

3.2.4 Responsive interaction and the formation of strategic direction

Responsive interaction specifies how meaning and possible direction can emerge when joint strategizing cannot be reduced to aligning already formed positions. It concerns the situated interaction through which the mayor and the municipal CEO respond to one another, test interpretations, and develop what the issue may mean and how it may be addressed.

Shotter's (2011) notion of witness-thinking provides the theoretical support for this element. Witness-thinking emphasizes understanding as something formed responsively in engagement with others and with the situation as it unfolds. Meaning is shaped in the back-and-forth of interaction, where actors respond to one another, test emerging interpretations, and adjust what the issue

can mean in practice. This perspective is relevant to the strategic dyad because strategic direction at the political-administrative apex is shaped by the interaction between political judgment and administrative knowledge.

Responsive interaction provides an interactional account of how meaning and possible direction may emerge and evolve within the strategic dyad. The mayor and the municipal CEO enter strategic work from different institutional positions. Responsive interaction is central when strategic issues are unsettled. Under complexity, the issue may contain more relations than can be held together at once. Under turbulence, the relevance and stability of these relations may change while action unfolds. Direction takes form through interaction in which the mayor and the municipal CEO grasp the issue, what it may become, which consequences matter, and how it can be addressed.

Example 6: Municipal budget pressure IV

Municipal budget pressure IV

Budget pressure may initially be framed by financial projections, but the interaction between the mayor and the municipal CEO can change how the issue is framed strategically. The mayor may connect the pressure to political priorities, distributional consequences, public legitimacy, and council dynamics. The municipal CEO may connect it to service obligations, administrative feasibility, organizational capacity, and implementation risk. Through responsive interaction, the issue can be reframed from a financial problem into a question of municipal direction, service transformation, political prioritization, or long-term organizational adjustment. Strategic direction is formed as these interpretations are tested, revised, and connected in interaction.

Responsive interaction specifies the third relational process through which joint strategizing may be enacted within the strategic dyad: the formation of meaning and possible direction in situated interaction. It specifies how the dyad works with strategic issues while their meaning, consequences, and possible direction remain open. Shared orientation gives the issue a common strategic concern. Relational coordination connects expectations, knowledge, timing, and action. Responsive interaction explains how the dyad forms strategic direction as the issue is grasped and addressed in practice.

3.2.5 The strategic dyad as the relational unit of joint strategizing

The political-administrative apex and the strategic dyad involve the same two executive actors but perform different conceptual functions. The political-administrative apex denotes the institutionally differentiated relation in which political authority and administrative responsibility meet. The strategic dyad denotes the

same relation treated as the focal relational unit when the joint strategizing of the mayor and the municipal CEO is examined. The move from apex to strategic dyad therefore changes the analytical foreground, not the institutional composition of the relation. Table 3.1 summarizes this distinction.

The preceding subsections specify three relational processes through which joint strategizing may be enacted within the strategic dyad. Shared orientation concerns orientation toward a common strategic concern. Relational coordination concerns alignment across differentiated roles, knowledge, expectations, timing, and action. Responsive interaction concerns the situated formation of meaning and possible direction. These processes may be present to different degrees and may be incomplete or contested.

Joint strategizing is enacted within the strategic dyad as dyadic praxis and is connected to wider municipal practices. Dyadic praxis refers to the situated flow of interaction through which the mayor and the municipal CEO interpret strategic issues, connect political and administrative judgments, test possible meanings, align expectations, and prepare possible direction. Wider municipal practices refer to the administrative and political routines, meetings, documents, decision sequences, and forms of involvement through which this strategizing is prepared, translated, coordinated, and carried forward. The strategy-as-practice distinction between praxis and practices thereby connects the internal flow of dyadic strategizing with the organizational and political practices through which strategic work proceeds (Jarzabkowski and Spee 2009; Vaara and Whittington 2012). Wider municipal practices do not enlarge the membership of the strategic dyad. They specify the arenas through which the dyad's strategizing becomes connected to directors, city councilors, organizational actors, and other participants in municipal strategic work.

Example 7: Municipal budget pressure V

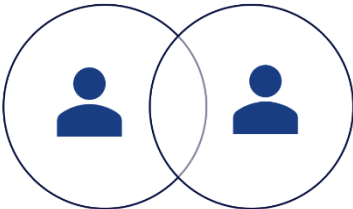
Municipal budget pressure V

The running example can now be gathered as a relation between dyadic praxis and wider municipal practices. The mayor and the municipal CEO may work internally on how budget pressure should be interpreted, which political priorities and administrative consequences are involved, what kind of direction can be sustained, and how the issue can be prepared. That work is then carried into wider municipal practices through administrative analyses, executive meetings, committee work, council processes, organizational communication, and follow-up. The strategic dyad identifies the relational point at which the issue is grasped and addressed as a joint strategic concern before it moves into broader administrative and political arenas.

The example illustrates how the strategic dyad can be analytically focal without being treated as a closed conversational unit. The strategic issue is interpreted,

related, and prepared within dyadic praxis, while its further development and enactment depend on wider municipal practices. On this basis, the strategic dyad provides the focal relational unit for examining how differentiated political and administrative contributions enter joint strategizing. Shared orientation, relational coordination, and responsive interaction specify processes through which this strategizing may be enacted within the dyad; they do not form or sustain the dyad as a separate organizational entity.

Table 3.1: The political-administrative apex and the strategic dyad

Analytical aspect	Political-administrative apex	Strategic dyad
Conceptual status	The institutional relation between the mayor and the municipal CEO, constituted by differentiated political and administrative authority and responsibility.	The analytical-relational specification of the same institutionally differentiated relation when the actors' joint strategizing is the focal object.
Primary focus	How political mandate and administrative responsibility are differentiated, connected, and held accountable at the municipal apex.	How differentiated political and administrative contributions are brought into relation when strategic issues are interpreted and direction is developed.
Contribution to strategic work	Provides political mandate, democratic legitimacy, and political judgment together with administrative responsibility, expertise, organizational knowledge, and continuity.	Connects these contributions through interpretation, alignment, and the joint development and revision of possible direction.
Relational characteristics	Complementarity, delegation, relational contracting, Principal agent, information, advice, accountability, task division. 	Shared orientation, relational coordination, and responsive interaction within dyadic praxis and wider municipal practices. 

The distinction preserves the institutional differentiation on which the relation is based. The mayor retains political mandate, democratic accountability, and responsibility for political direction, while the municipal CEO retains administrative responsibility, organizational authority, and responsibility for the administrative organization. Specifying the relation as a strategic dyad does not merge these roles. It makes the connection between their differentiated contributions the focal object when joint strategizing is examined.

Put differently, the relation is described as the political-administrative apex when authority, responsibility, role differentiation, and accountability are foregrounded. It is specified as the strategic dyad when the joint strategizing of the same two actors is foregrounded. The political-administrative apex therefore provides the institutional basis of strategic readiness, while the strategic dyad provides its focal relational unit for strategizing.

Sections 3.1 and 3.2 therefore answer two connected questions. Strategizing specifies the activity being examined, and the strategic dyad specifies the focal relation in which that activity is located. The next section addresses a different question: which analytical dimensions specify the form of strategizing that constitutes strategic readiness. Systematic, coordinated, and collaborative strategizing provide that dimensional specification.

3.3 Three dimensions of strategic readiness: systematic, coordinated, and collaborative strategizing

Having specified strategizing as the activity and the strategic dyad as the focal relational unit, the next conceptual step is to specify the form of strategizing that constitutes strategic readiness. Strategic readiness has three dimensions: systematic, coordinated, and collaborative strategizing. Each dimension concerns both the dyadic praxis and wider municipal practices. Systematic strategizing refers to the recurrent, structured, and sustained handling of strategic issues over time. Coordinated strategizing refers to the alignment of roles, expectations, understandings, attention, timing, and action in the strategic dyad's work with strategic issues. Collaborative strategizing refers to the joint development of interpretations, strategic possibilities, and possible directions through joint interaction. Each dimension concerns both the dyadic praxis and wider municipal practices. Dyadic praxis concerns the internal strategizing by which the mayor and the municipal CEO grasp and address, align on, test, and develop strategic issues. Wider municipal practices concern the administrative and political arenas, routines, meetings, documents, and forms of involvement through which dyadic strategizing includes the organization and its stakeholders.

3.3.1 Systematic strategizing

Systematic strategizing concerns how strategic issues are maintained as objects of strategic attention, revisited, followed up on, and carried forward. The dimension specifies the continuity aspect of strategic readiness.

The dimension draws on public strategy research's attention to the temporal and procedural organization of strategic work. Strategic planning and strategic management research contribute a language for connecting strategic issues, goals, priorities, follow-up, implementation, learning, and adaptation over time (Bryson 2017; Bryson and George 2020; George et al. 2019; Vandersmissen et al.

2022). Strategy-as-practice research adds that continuity is enacted through practices, routines, tools, meetings, and situated judgments (Jarzabkowski and Spee 2009; Vaara and Whittington 2012). The contribution of this literature lies in the connection between recurrence, structured attention, follow-up, and work over time.

In dyadic praxis, systematic strategizing concerns the continuity of the mayor and the municipal CEO's own work with strategic issues. The strategic dyad returns to unresolved issues, brings earlier interpretations back into later conversations, connects present concerns to longer trajectories, and develops a rhythm for joint strategic attention. This praxis may take place in formal meetings, but it also includes repeated informal dialogical work through which the dyad keeps a strategic issue active across changing circumstances.

Systematic strategizing also has a practices side. When the dyad's recurrent work involves the wider municipality, strategic issues are maintained through agenda-setting, decision sequences, administrative preparation, committee work, follow-up formats, and organizational routines. These practices allow strategic issues to be revisited and connected over time beyond the strategic dyad's internal interaction. Systematic strategizing therefore links continuity in dyadic praxis to the broader practices that sustain strategic direction in administrative and political work.

The dimension matters under complexity because strategic issues may involve more actors, dependencies, interpretations, rules, arenas, and consequences than can be held together in a single moment of strategic attention. Systematic strategizing specifies how the dyad can return to selected relations over time and connect them across situations. It matters under turbulence because strategic issues may shift as action unfolds. New information, political reactions, administrative assessments, and organizational conditions may alter the basis for action. Systematic strategizing specifies how strategic work can be revisited and followed up on as conditions change.

3.3.2 Coordinated strategizing

Coordinated strategizing specifies the alignment aspect of strategic readiness. The conceptual basis for this dimension comes from political-administrative research and relational coordination. Political-administrative research specifies the mayor-municipal CEO relation as differentiated and interdependent, with distinct roles connected through advice, information, complementarity, accountability, trust, and recurring interaction (Aberbach et al. 1981; Mouritzen and Svava 2002; Svava 1999, 2001). Relational coordination research contributes a more specific language for alignment across interdependent roles through shared goals, shared knowledge, mutual respect, and communication that is frequent, timely, accurate, and problem solving (Bolton et al. 2021; Gittell 2001). The

contribution of this literature is the understanding of coordination as alignment across differentiated forms of authority, knowledge, responsibility, and action.

In dyadic praxis, coordinated strategizing concerns how political and administrative positions are connected in the ongoing work of the mayor and the municipal CEO. Political interpretation is related to administrative knowledge. Administrative preparation is timed in relation to political processes. Organizational consequences are considered in relation to political priorities. Roles, expectations, attention, timing, and possible next steps are calibrated in the interaction between the two apex actors.

The practices side of coordinated strategizing concerns how this alignment involves the administrative and political arenas. Strategic issues are being considered in administrative analyses, executive meetings, committee preparation, council processes, communication formats, and organizational follow-up. Coordinated strategizing connects these practices by preparing how strategic direction moves between political arenas, administrative processes, and wider municipal practice. Alignment in the dyad thereby becomes relevant for how strategic work is sequenced, distributed, and how the dyad engages with the organizations and their stakeholders.

The dimension matters under complexity because strategic issues connect multiple roles, arenas, responsibilities, and forms of knowledge. Coordination then concerns the alignment of interpretations, expectations, timing, and action across a differentiated political-administrative relation. Under turbulence, coordinated strategizing specifies recalibrated alignment. Political support, administrative assessments, organizational capacity, actor involvement, and decision timing may change while the issue is handled.

In dyadic praxis, coordinated strategizing concerns how the mayor and the municipal CEO adjust roles, expectations, interpretations, attention, timing, and next steps as the issue develops. In broader municipal practices, this recalibration is achieved through adjusted agendas, revised administrative preparation, altered involvement sequences, reconfigured committee timing, and renewed coordination between political and administrative arenas. Coordinated strategizing specifies how the dyad maintains alignment when the strategic issue and the municipal process evolve simultaneously.

Coordinated strategizing thus specifies the alignment aspect of strategic readiness. It connects alignment in dyadic praxis with wider municipal practices through which strategic issues are prepared, coordinated, and involve the administrative and political arenas.

3.3.3 Collaborative strategizing

Collaborative strategizing specifies the generative aspect of strategic readiness. The conceptual basis for this dimension comes from strategy-as-practice and relational-dialogical perspectives on meaning and interaction. Strategy-as-practice

research conceptualizes strategy as situated activity enacted through practitioners, practices, tools, routines, conversations, and judgment (Jarzabkowski and Spee 2009; Vaara and Whittington 2012). Relational and dialogical perspectives add that meaning and possible action are formed through communicative and responsive relations (Gergen 2009; Pearce 2007; Shotter 2011). The contribution of this literature is the understanding of strategic meaning and possibility as something developed through interaction.

The dimension matters under complexity because strategic issues often involve multiple interpretations and only partially known consequences. Collaborative strategizing specifies how political judgment and administrative knowledge are grasped in a joint interpretive process when the issue cannot be settled through one perspective alone. Under turbulence, collaborative strategizing entails renewed interpretation and the development of possibilities. New information, shifts in public attention, political reactions, administrative learning, or changes in external conditions may alter what the issue means and the direction in which it can be addressed.

In dyadic praxis, collaborative strategizing concerns how the mayor and the municipal CEO revisit meanings, test revised interpretations, and develop new possible directions through interaction. In wider municipal practices, these revised interpretations and possibilities are reviewed and broadened through processes of involvement, communication, administrative preparation, political discussions, and organizational development work. Collaborative strategizing specifies how the dyad continues to develop a joint direction when the meaning and relevance of the issue change as action unfolds.

Collaborative strategizing thus specifies the generative aspect of strategic readiness. It connects joint meaning-making in dyadic praxis with wider municipal practices through which interpretations, strategic possibilities, and possible directions are developed.

3.3.4 Summary of the dimensional structure of strategic readiness

Systematic, coordinated, and collaborative strategizing specify three analytical dimensions of strategic readiness. The three dimensions also connect dyadic praxis and wider municipal practices. In dyadic praxis, strategic readiness concerns how the mayor and the municipal CEO work internally with strategic issues. In wider municipal practices, strategic readiness concerns how this work engages the administrative and political arenas, routines, meetings, documents, decision sequences, involvement processes, communication, and follow-up.

Taken together, the three dimensions specify the form of strategizing that constitutes strategic readiness under complexity and turbulence. Complexity broadens and differentiates the range and configuration of interdependencies, interpretations, institutional arrangements, and possible consequences that

enter strategic work, thereby increasing the demands placed on selection and coordination. Turbulence means that these relations and the basis for action may change while strategizing unfolds. Systematic strategizing specifies continuity by keeping strategic issues available for recurrent attention, revisiting, and follow-up. Coordinated strategizing specifies alignment and selective recalibration across differentiated roles, expectations, timing, and action. Collaborative strategizing specifies the joint interpretation of unsettled issues and the development and revision of possible direction as meanings and conditions change.

These dimensions define what strategic readiness consists of, but they do not yet specify how the same dimensions are oriented toward a particular strategic issue. Strategic issues may differ in how knowable the future appears and in whether relevant organizational capacities, relations, and decision pathways appear sufficiently available for addressing the issue. The next section therefore introduces strategic horizons as the orienting architecture through which systematic, coordinated, and collaborative strategizing is directed under different issue-specific constellations of future knowability and organizational readiness.

3.4 Strategic horizons as the orienting architecture of strategic readiness

Having specified strategizing as the activity, the strategic dyad as the focal relational unit, and systematic, coordinated, and collaborative strategizing as the dimensional content of strategic readiness, the final conceptual step is to specify how this strategizing is oriented toward particular strategic issues. The three dimensions remain the conceptual content of strategic readiness across strategic situations. What varies is how the issue appears to the strategic dyad and, consequently, how systematic, coordinated, and collaborative strategizing are directed. Strategic horizons are introduced to conceptualize this issue-specific orientation.

To conceptualize this orienting work, the study draws on Gadamer's (2011) concept of horizons. Horizon provides a way to understand how a situation becomes intelligible from a particular vantage point, while also making clear that such intelligibility is situated, moving, and bounded rather than closed. A strategic issue may appear more or less knowable, and the organization may appear more or less ready to address it. Strategic horizons specify the orienting ranges produced by the relation between these two assessments. Strategic horizons specify these orienting ranges and provide practical ways to address complexity and turbulence. Across all four horizons, strategizing remains systematic, coordinated, and collaborative. What changes is how these dimensions are oriented when the issue is grasped and addressed as ready known, unready known, ready unknown, or unready unknown.

3.4.1 Horizon as a situated and moving vantage point

Gadamer's concept of horizon connects understanding, position, and movement. A horizon is the range within which something becomes intelligible and proportioned from a particular vantage point. Gadamer defines horizon as "the range of vision that includes everything that can be seen from a particular vantage point" (Gadamer 2011:301). This definition has three important points for this study. First, horizons make the intelligibility situated. Second, what becomes available for understanding depends on where one stands; third, what becomes significant depends on the field in which an issue is encountered. This study draws on the perspective on horizons and adds that horizons are a relational vantage point for the strategic dyad.

This situated character of horizons is central in the study. The strategic dyad does not encounter strategic issues as fully formed objects. It does so through a field of concern shaped by political ambitions, administrative knowledge, organizational possibilities, institutional constraints, and temporal pressure. A strategic issue becomes intelligible when the dyad can distinguish what appears relevant, how different elements are related, and what kind of strategic attention the issue calls forth. As such, horizon concerns more than perception. It concerns the ordering of relevance. Gadamer's point that "to have a horizon means not being limited to what is nearby but being able to see beyond it" (Gadamer 2011:301) is particularly important here. A horizon does not simply show what is present but also helps proportion what matters. Horizons give orientation for grasping and addressing a strategic issue as a relational unit.

The concept also contributes by illustrating how horizons move. Gadamer emphasizes that "the horizon is, rather, something into which we move and that moves with us" (Gadamer 2011:303), and that "[h]orizons change for a person who is moving" (Gadamer 2011:303). This dynamic matters for a theory of strategizing under complexity and turbulence. Strategic issues are not stable in the way they appear to the strategic dyad. New information may change what seems knowable. Organizational action may change what seems possible. Political developments may change what appears legitimate or urgent. Administrative preparation may change whether the organization appears ready or unready. Therefore, horizon provides a language for understanding how strategic intelligibility changes as the strategic dyad works with an issue.

Finally, horizons are bounded without being sealed. They enable grasping and addressing by creating a range of intelligibility, but they do not confine strategic work to closed categories. Horizons may overlap, expand, narrow, or shift as the dyad works with a strategic issue. They are orienting ranges through which the strategic dyad can grasp and work with different aspects of an issue. A situation may be grasped and addressed through one horizon at one point in the strategic process and through another horizons later. The horizon concept therefore

supports the dynamic understanding of strategic readiness as the dyad's situated work with how strategic issues become graspable and addressable.

3.4.2 From complexity and turbulence to strategic horizons

Complexity and turbulence are grasped and addressed differently depending on the strategic issue at hand. Some situations are sufficiently bounded to support sequencing, prioritization, and planned action. Others are intelligible but insufficiently actionable because relevant readiness is limited. Some situations remain uncertain while the organization has available capacities, routines, relations, and interpretive resources. Others are both uncertain and insufficiently ready for, leaving the dyad to work with ambiguity before direction can be stabilized. Strategic horizons specify how these conditions become graspable and addressable for the strategic dyad in relation to a specific issue. They organize how the dyad relates future knowability to issue-specific organizational readiness.

This variation matters because strategizing is always oriented towards concrete strategic issues. The strategic dyad does not simply perform systematic, coordinated, and collaborative strategizing in general. It does so in relation to a situation that appears in a particular way. A horizon contributes to the orientation and concretizations of strategic issues. It offers different viewpoints and enables the dyad to grasp what remains open, examine which forms of readiness are available, and investigate how direction can be worked on. In praxis, the horizon shapes the dyad's internal dialogical work. It influences what the mayor and municipal CEO consider sufficiently known, what they leave open to further interpretation, and how they assess the organization's readiness. In practices, the horizon shapes how the issue is worked with in the wider organization and political system. It influences who is involved, what kind of involvement is relevant, how quickly action is sequenced, and whether wider practices are oriented toward enactment, preparation, contingency, or exploration.

Strategic horizons provide an orienting architecture for strategizing under complexity and turbulence. They specify how the dimensions are oriented when the dyad works with different forms of intelligibility and readiness. Systematic strategizing remains concerned with continuity over time, but the continuity required differs when the issue appears known and ready compared to when it appears unknown and unready. Coordinated strategizing remains concerned with alignment across interdependent actors and arenas, but alignment has a different character when it supports implementation, preparation, contingency, or exploratory sensemaking. Collaborative strategizing remains concerned with the joint development of meaning, ownership, and possibility, but collaboration is oriented differently when direction is already sufficiently intelligible than when the issue itself remains unsettled.

3.4.3 The architecture of the four strategic horizons

The four strategic horizons are organized around two axes. The first axis is future knowability. It builds on the condition literature's emphasis on partial knowability, limited predictability, shifting relations, and unstable conditions for action (Ansell and Trondal 2018; Duit and Galaz 2008; Klijn and Koppenjan 2016). Future knowability concerns whether the strategic issue is sufficiently intelligible to the dyad to support anticipatory strategizing.

The second axis is issue-specific organizational readiness. It builds on the political-administrative and organizational side of the argument where strategic work depends on administrative knowledge, political support, relevant capacities, routines, relations, decision pathways, and interpretive resources (Aberbach et al. 1981; Højberg and Madsen 2023; Mouritzen and Svara 2002; Storgaard and Hansen 2022; Svara 1999, 2001). Issue-specific organizational readiness concerns whether the dyad perceives these resources as sufficiently available for the issue at hand.

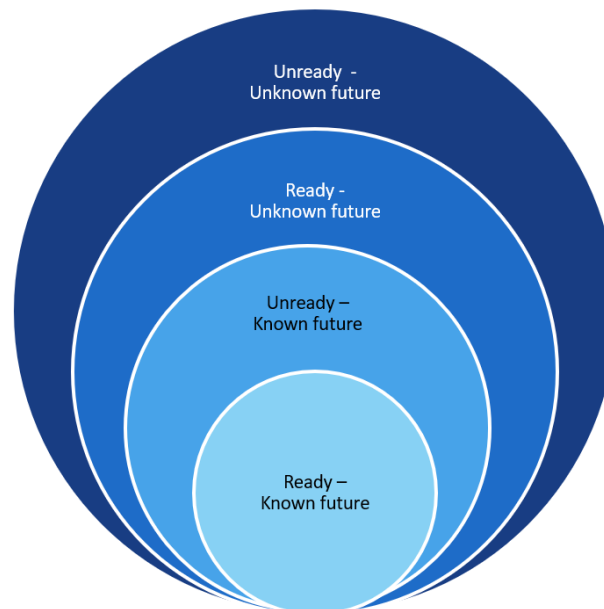
Together, these two axes create four strategic horizons for the strategic dyad to orient its strategizing. When the future is grasped as relatively knowable and the organization as relatively ready, the situation appears as a ready known future. Strategizing can proceed from a relatively articulated and ready starting point. When the future is grasped as relatively knowable and the organization as relatively unready, the situation appears as an unready known future. Strategizing is oriented toward preparing the organization for a development that is already becoming intelligible. When the future is grasped as relatively unknowable and the organization as relatively ready, the situation appears as a ready unknown future. Strategizing is oriented toward maintaining and activating readiness under conditions where the future cannot be specified in advance. When the future is grasped as relatively unknowable and the organization as relatively unready, the situation appears as an unready unknown future. Strategizing is oriented toward situations where both direction and readiness remain unsettled.

Taken together, the horizons are each associated with a dominant strategizing dialogical logic, depending on how a strategic issue is grasped and how the dyad investigates different ways to address it. The ready known future is associated with planning-near strategizing. The unready known future is associated with foresight-oriented strategizing. The ready unknown future is associated with contingency-oriented strategizing. The unready unknown future is associated with exploratory strategizing under ambiguity. These logics frame different ways of how systematic, coordinated, and collaborative strategizing are performed under different constellations of future knowability and issue-specific organizational readiness.

These four horizons are illustrated in Figure 3.1. The sphere format emphasizes that the horizons are related and overlapping. Strategic situations are therefore rarely exhausted by one horizon alone. Different aspects of the same

situation may be grasped through several horizons at once, opening up different ways of addressing an issue. Movement across horizons reflects shifts in the dyad's understanding of future knowability and issue-specific organizational readiness.

Figure 3.1: The four strategic horizons



The model is an orienting architecture helping the strategic dyad to grasp how a situation appears, how to address the issue, and how praxis and practices can be connected. The same issue may contain elements of more than one horizon. A situation may be known in its overall direction but unknown in its operational implications. An organization may be ready in administrative terms but unready politically. The contribution of the horizon model lies in specifying potential strategizing variation for grasping and addressing a strategic issue, as well as offering different vantage points for potential praxis and practices for the dyad.

Example 3: Municipal budget pressure VI

Municipal budget pressure VI

Budget pressure can appear through different strategic horizons. If the causes are relatively clear and the municipality has available routines, data, and decision pathways, the issue may appear as a ready known future. If the pressure is intelligible but the municipality lacks political agreement, administrative capacity, or shared understanding, it may appear as an unready known future. If the municipality has relevant routines and capacities but the future development remains uncertain, the issue may appear as a ready unknown future. If both the causes and the municipality's readiness remain unsettled, the issue may appear as an unready unknown future.

3.4.4 The ready known future

The first strategic horizon is the ready known future. This horizon refers to situations in which the future is grasped as relatively knowable and the organization is grasped as relatively ready to engage the issue. The development in question appears sufficiently intelligible for the strategic dyad to identify the issue, relate it to expected consequences, and work with direction from a comparatively articulated starting point. The organization also appears sufficiently ready in terms of relevant routines, knowledge, structures, relations, and decision pathways.

This horizon is relevant when complexity and turbulence are grasped in a comparatively bounded and workable form. Complexity remains present, but the relations that matter most can be sufficiently delimited. Turbulence remains present, but developments appear stable enough to support anticipation and sequencing. Social acceleration still shapes the temporal background, but the time horizon is not so compressed that the dyad loses the possibility of setting direction through established strategic practices.

In this horizon, the dominant addressing logic is planning-near strategizing. This does not mean that strategizing collapses into formal planning. It means that the dyad can work closer to planning because the issue appears sufficiently knowable and the organization sufficiently ready. Systematic strategizing is oriented toward sequencing, prioritization, decision rhythm, and follow-up. Coordinated strategizing is oriented toward aligning roles, expectations, and timing across actors and arenas that are already identifiable. Collaborative strategizing is oriented toward testing, refining, and sustaining a direction that has become sufficiently intelligible.

In praxis, the dyad works dialogically to ensure that the mayor and municipal CEO share an adequate reading of the issue, its implications, and the room for political and administrative action. The dyad may test whether the articulated direction still holds, whether the organization's readiness is adequate, and

whether any new development changes the interpretation. In practices, the dyad can engage the wider organizational and political processes through agenda-setting, decision preparation, coordination with directors, committee processes, implementation pathways, communication, and follow-up.

The ready known future represents the most planning-near horizon in the model. Its analytical value lies in showing that some strategic situations under complexity and turbulence can be approached from a more articulated and ready starting point. Even in this horizon, strategizing remains necessary because direction still has to be interpreted, aligned, and sustained in practice.

3.4.5 The unready known future

The second strategic horizon is the unready known future. This horizon refers to situations in which the future is grasped as relatively knowable, while the organization is grasped as relatively unready to engage in what is being grasped. The strategic issue can be identified, its likely implications can be anticipated, and the dyad can see that something important is approaching. The central difficulty lies in the gap between strategic visibility and organizational readiness.

This horizon is relevant when complexity and turbulence are grasped through an asymmetry between knowability and readiness. Complexity may be sufficiently delimited to recognize the issue. Turbulence may still allow the dyad to anticipate a likely direction of development. Social acceleration may compress the time available for preparation. What defines the horizon is that the issue appears visible enough to call for strategic addressing, while the organization lacks sufficient readiness to act adequately.

In this horizon, the dominant addressing logic is foresight-oriented strategizing. It refers to anticipatory strategizing in which the strategic dyad moves forward from an intelligible development to explore implications, vulnerabilities, dependencies, and preparatory pathways. The dyad works on what the organization needs in order to engage with the known development more adequately.

Systematic strategizing is oriented toward maintaining the emerging issue as an object of recurring strategic attention. The dyad revisits the issue, tracks its implications, and establishes a rhythm by which unreadiness can be specified rather than left as a general concern. Coordinated strategizing is oriented toward aligning the preparatory work required for readiness. This may involve directors, professional domains, finance, political committees, external actors, or other parts of the municipal organization. Collaborative strategizing is oriented toward making unreadiness discussable and shared. It helps the dyad and relevant actors develop a common understanding of what is missing, what needs to be developed, and how preparation can proceed.

The praxis and practices of this horizon are preparation-oriented. In praxis, the mayor and municipal CEO work with the graspable future and the organization's present limits. They examine where political support is lacking, where

administrative capacity is insufficient, where shared understanding is weak, and where existing routines do not align with the issue. In practices, the dyad extends this work through processes that build readiness. These practices may include strategic analyses, political workshops, director involvement, preparatory decision-making principles, staged processes, external inspiration, and organizational learning loops.

The unready known future is the horizon in which the dyad works on issue-specific organizational readiness in relation to a development that is already becoming intelligible. The strategic work is not yet primarily the enactment of direction. It is the development of the conditions under which a known future can become actionable. This gives the horizon its distinctive contribution to the model. It makes visible the strategic importance of preparing before direct execution becomes adequate.

3.4.6 The ready unknown future

The third strategic horizon is the ready unknown future. This horizon refers to situations in which the organization is grasped as relatively ready, while the future remains too open or contingent to be specified in advance. The organization appears to have relevant capacities, structures, relations, and interpretive resources, but the dyad cannot yet know which development, event, demand, or constellation of relations will prove decisive.

This horizon is relevant when complexity and turbulence are grasped through another asymmetry between readiness and knowability. Complexity broadens the field of possible relevance. Turbulence keeps relations and developments unstable. Social acceleration compresses the time available for interpretation and response. At the same time, the organization appears sufficiently ready to respond when the issue becomes more determinate. Therefore, the strategic problem is not primarily to build missing readiness, but to keep available readiness active and orientable under uncertainty.

In this horizon, the dominant addressing logic is contingency-oriented strategizing from the premise that future developments cannot be specified in advance and that existing readiness has to remain available for multiple possible pathways. The strategic dyad works with option spaces, trigger points, thresholds, flexible sequencing, and rapid recalibration.

Systematic strategizing is oriented toward maintaining readiness over time. It keeps possible developments, available resources, and relevant repertoires in view rather than allowing them to become dormant. Coordinated strategizing is oriented toward aligning actors, roles, and timing around conditional pathways. It helps the organization know how to activate different responses when developments change. Collaborative strategizing is oriented toward interpreting emerging signals together. It helps the dyad and relevant actors decide what the available readiness is now being called upon to address.

In praxis, the mayor and municipal CEO work with uncertainty while maintaining a shared strategic orientation. They test signals, reconsider assumptions, identify thresholds, and clarify how they will recalibrate when new information changes the picture. In practices, the strategic dyad prepares the wider organization and political system for conditional activation. This may include option portfolios, escalation routes, decision windows, communication templates, scenario holders, and pre-agreed principles for when different actors are involved.

The ready unknown future shows how readiness can be present while the future remains strategically open. Readiness does not remove uncertainty in this horizon. It provides a basis for responding when uncertainty becomes more concrete. The horizon is important because it avoids treating unknown futures as purely reactive situations. The dyad can advance in systematic, coordinated, and collaborative ways, even when the future cannot yet be fully known.

3.4.7 The unready unknown future

The fourth strategic horizon is the unready unknown future. This horizon refers to situations in which the future cannot be grasped as sufficiently knowable and the organization cannot be grasped as sufficiently ready. The development remains open, unstable, or difficult to delimit, and the organization lacks sufficient issue-specific organizational readiness in terms of capacities, structures, relations, shared understanding, or political and administrative orientation.

This horizon is relevant when complexity and turbulence are grasped in their most unsettled form. Complexity makes it difficult to determine which relations will become decisive. Turbulence makes the issue itself unstable as action unfolds. Social acceleration compresses the time available to make sense of the situation, even though neither direction nor readiness can yet be stabilized. The dyad is therefore faced with double indeterminacy: The future is not sufficiently knowable, and the organization is not sufficiently ready.

In this horizon, the dominant addressing logic is explorative strategizing under ambiguity. Ambiguity does not simply mean lack of information. It refers to a strategic situation in which several interpretations, possible developments, and possible responses coexist, none sufficiently settled to guide action on its own. The dyad is working with a situation where both the meaning of the issue and the organization's ability to engage it are in question.

Systematic strategizing is oriented toward provisional recurrence. It provides enough structure to revisit the issue, track emerging patterns, and prevent the work from fragmenting. Coordinated strategizing is oriented toward provisional alignment. It calibrates roles, expectations, and possible responses without assuming that the relations involved are already stable. Collaborative strategizing is oriented toward exploratory meaning-making. It allows the dyad and relevant actors to bring alternative interpretations into dialogue, test assumptions, and develop emerging possibilities.

In praxis, the dialogical character of strategizing becomes especially central. The mayor and municipal CEO work together to make the ambiguity discussable. They examine what may be happening, what they do not yet understand, which relations may become important, and what would count as a more adequate framing of the issue. In practices, the dyad may widen involvement in order to bring more knowledge, experience, and interpretive resources into the strategic work. Directors, finance, professional experts, political actors, frontline knowledge, external actors, or other municipalities may be involved to help make both the issue and the organization's readiness more intelligible.

The unready unknown future represents the most open ended horizon in the model. It is not a horizon of inaction. It is a horizon in which action is provisional, learning-oriented, and reversible where possible. The strategic dyad works to develop both a more adequate understanding of the issue and a more adequate basis for engaging it. Strategizing remains systematic, coordinated, and collaborative, but the orientation of these dimensions is exploratory and adaptive because neither future nor readiness can yet be assumed.

3.4.8 Overlap and movement across horizons

The horizons should be read as related and partly overlapping orienting ranges. A strategic issue may be grasped through more than one horizon because different aspects of the issue may differ in knowability and readiness. The same issue may be comparatively knowable in its fiscal implications, less knowable in its political consequences, administratively ready, and politically unready. Movement across horizons therefore concerns shifts in how the dyad grasps the issue as strategizing unfolds.

A situation first grasped as an unready unknown future may become more knowable through exploratory strategizing. A situation first grasped as an unready known future may move closer to a ready known future as readiness develops. A situation grasped as ready and known may later be reoriented as ready unknown if new developments make the future less determinate while organizational readiness remains available.

Movement across horizons changes how strategizing is oriented. Moving toward an unready horizon directs attention to issue-specific organizational readiness. Moving toward a known horizon directs attention to intelligibility. Moving toward a ready horizon directs attention to available capacities, routines, relations, and decision pathways. Moving toward an unknown horizon keeps the dyad attentive to contingency and prevents premature closure. Consequently, moving between horizons is therefore not only a matter of fitting a strategic issue to a predefined category, but also a way for the dyad to examine the issue from different vantage points and to consider different ways of addressing it.

Planning-near, foresight-oriented, contingency-oriented, and exploratory strategizing under ambiguity are horizon-specific orientations of systematic,

coordinated, and collaborative strategizing. They specify how the same dimensions are oriented when the dyad grasps and addresses the strategic issue through different combinations of knowability and readiness.

Strategic horizons orient the dyad's work with how strategic situations are framed, revisited, and repositioned. The same issue can be examined across horizons to clarify assumptions about future knowability, issue-specific organizational readiness, and the kind of strategizing that follows from these assumptions.

3.4.9 Summary of strategic horizons

Strategic horizons specify the orienting architecture of strategic readiness. They connect the strategic dyad's systematic, coordinated, and collaborative strategizing to the situated way strategic issues are grasped and addressed under complexity and turbulence.

The four horizons are organized through the relation between future knowability and issue-specific organizational readiness. The horizons are related, overlapping, and movable. The same strategic issue may be grasped through more than one horizon, and the strategic dyad can address the issue with different logics. Movement across horizons changes which relations, preparations, uncertainties, and possible directions become salient.

The horizon model completes the conceptual architecture by specifying the orientation of strategic readiness. Strategizing specifies the activity. The strategic dyad specifies the relational unit. Systematic, coordinated, and collaborative strategizing specify the three analytical dimensions. Strategic horizons specify the orienting architecture through which the dyad grasps and addresses strategic issues under complexity and turbulence.

Taken together, the four strategic horizons specify how complexity and turbulence become intelligible for the strategic dyad. They organize strategizing according to future knowability and issue-specific organizational readiness in relation to the issue at hand. They explain why systematic, coordinated, and collaborative strategizing can be oriented differently depending on how the strategic issue is grasped and addressed.

3.5 Conceptual definition and systematization of strategic readiness

The preceding sections have developed the conceptual architecture of strategic readiness. Strategizing specifies the activity being examined. The strategic dyad specifies the focal relational unit. Systematic, coordinated, and collaborative strategizing specify the dimensional content of the concept. Strategic horizons specify how this strategizing is oriented toward particular strategic issues under complexity and turbulence.

Taken together, strategic readiness is defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. The definition specifies three connected features of the concept. The activity is strategizing, understood as interconnected, ongoing, and socially situated strategic thinking, acting, and learning. The focal relational unit is the strategic dyad, which treats the mayor and the municipal CEO as one focal relation when their joint strategizing is examined. The dimensional content consists of systematic, coordinated, and collaborative strategizing.

Dyadic praxis and wider municipal practices specify where and through which forms this strategizing is enacted. Dyadic praxis concerns the situated interaction through which the mayor and the municipal CEO interpret strategic issues, relate political and administrative judgments, test possible meanings, and develop possible direction. Wider municipal practices concern the administrative and political arenas, routines, meetings, documents, decision sequences, involvement processes, communication, and follow-up through which dyadic strategizing is prepared, connected, and carried forward. Praxis and practices therefore specify the enactment of strategic readiness rather than adding further dimensions to the concept.

Adcock and Collier (2001) distinguish between a background concept, understood as the broad constellation of meanings associated with a concept, and a systematized concept, understood as the specific formulation adopted for a particular inquiry. Strategic readiness is not treated here as a settled background concept from which the dissertation selects one already established meaning. Instead, the concept is developed from the broader theoretical field of public strategizing, political-administrative relations, and executive public leadership under complexity and turbulence. Adcock and Collier's framework is used to make the specific conceptual formulation adopted for this inquiry explicit and to distinguish that formulation from its subsequent operationalization.

The systematized concept adopted in the dissertation is strategic readiness defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. Its internal conceptual structure consists of the activity, the focal relational unit, and the three dimensions. Its broader theoretical specification connects this internal structure to dyadic praxis, wider municipal practices, complexity, turbulence, and strategic horizons.

Operationalization occurs when this systematized concept is translated into indicators. In the empirical part of the dissertation, questionnaire items operationalize systematic, coordinated, and collaborative strategizing, and these items are used to construct dimension scales and overall indices.

The questionnaire items and the procedures used to combine them into dimension scales and overall indices constitute the indicators and measurement procedures through which the systematized concept is operationalized. The municipality-level values produced for each respondent-specific measure at each measurement wave constitute scores for cases. The before-after differences

subsequently used in Chapters 11–13 are derived case scores rather than additional concepts or indicators.

3.5.1 The horizon-oriented specification of strategic readiness

The systematized concept of strategic readiness remains defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. The horizon-oriented specification addresses a different conceptual question: How this strategizing is oriented when the dyad works with a particular strategic issue under complexity and turbulence. Strategic readiness is the systematized concept. Its internal content is systematic, coordinated, and collaborative strategizing in the strategic dyad. Strategic horizons provide its issue-specific orienting specification under complexity and turbulence.

Strategic horizons specify this issue-specific orientation through the relation between future knowability and issue-specific organizational readiness. The ready known future, the unready known future, the ready unknown future, and the unready unknown future identify different orienting ranges through which a strategic issue may become graspable and addressable. Across all four horizons, the dimensional content of strategic readiness remains systematic, coordinated, and collaborative strategizing. What varies is how recurrence, alignment, joint interpretation, and the development of direction are oriented in relation to the issue.

The horizons provide the theoretical architecture through which the same systematized concept is related to different constellations of future knowability and issue-specific organizational readiness. This distinction maintains continuity with the preregistered use of the four strategic horizons without expanding the dimensional content of the measured concept.

3.6 Summary of strategic readiness

Strategic readiness provides the conceptual language for examining strategizing in the strategic dyad. The concept names the strategic dyad's systematic, coordinated, and collaborative strategizing. Strategizing specifies the interconnected, ongoing, and socially situated activities through which practitioners think, act, and learn strategically as they seek to make strategic issues sufficiently intelligible and to develop, enact, revise, and carry direction forward in practice. The strategic dyad specifies the mayor and the municipal CEO as the focal relational unit for examining joint strategizing. Systematic, coordinated, and collaborative strategizing specify the dimensional content of the concept.

The concept is relational because strategic readiness is developed through the mayor and the municipal CEO's joint work with strategic issues. The two actors are institutionally differentiated, but their strategic work is examined as a dyadic form of strategizing. The strategic dyad therefore represents the relation between

political mandate, administrative responsibility, political judgment, organizational knowledge, and shared work with municipal direction.

The concept is also practice oriented. Strategic readiness concerns dyadic praxis and wider municipal practices. Dyadic praxis captures the internal strategizing through which the mayor and the municipal CEO interpret issues, align expectations, test possible meanings, and develop possible directions. Wider municipal practices capture the administrative and political arenas, routines, meetings, documents, decision sequences, involvement processes, communication, and follow-up formats through which this strategizing is prepared, translated, coordinated, and carried forward.

Strategic horizons preserve the concept's relation to complexity and turbulence. The three dimensions specify the form of strategizing. Strategic horizons specify its orientation and clarify how the dyad's strategizing is directed when strategic issues are grasped through different combinations of future knowability and issue-specific organizational preparedness. Complexity and turbulence therefore remain part of the conceptual architecture, while strategic readiness is defined by the strategic dyad's systematic, coordinated, and collaborative strategizing.

Strategic readiness is the basic systematized concept used in the dissertation. It is defined by systematic, coordinated, and collaborative strategizing in the strategic dyad. The horizon-oriented specification preserves the concept's relation to complexity and turbulence, as formulated in the preregistration, show how this strategizing is directed through the four strategic horizons, without treating the horizons as separate dimensions or separate outcome measures.

4. The causal relation between leadership training and strategic readiness

Strategic readiness and leadership training have different functions in the causal argument. Strategic readiness is the dependent variable, defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. Leadership training is the independent variable, understood as a structured learning intervention directed at leadership-related knowledge, skills, attitudes, behavior, and application in practice (Day et al. 2021; Lacerenza et al. 2017). The task in this chapter is to specify the theoretical relation between leadership training and change in strategic readiness.

The chapter develops a theoretical route to change in strategic readiness. Leadership training research establishes the general plausibility of the intervention by showing positive average effects across reactions, learning, transfer, and results, while also showing substantial variation associated with program design, delivery, and implementation (Lacerenza et al. 2017). Transfer research specifies how training becomes consequential for practice through application, maintenance, feedback, follow-up, opportunity to perform, and the work environment into which learning is brought (Baldwin and Ford 1988; Blume et al. 2010; Grossman and Salas 2011). These contributions provide the general basis for linking leadership training to changes in leadership practice. These contributions provide the general basis for linking leadership training to changes in leadership practice. The present causal task is more specific because the dependent variable concerns strategic readiness.

The causal relation is theorized through a dyad-based rationale and four linked mechanisms. The dyad-based rationale aligns the relational level of the intervention with the relational level of the dependent variable. The four mechanisms concern the strengthening of shared orientation, repeated enactment of the trained way of working, reflection and adjustment of existing strategizing, and application of training-related learning in municipal practice. The mechanisms specify how change is expected to occur, whereas systematic, coordinated, and collaborative strategizing specify what change in the dependent variable consists of. Together, these mechanisms provide the theoretical basis for expecting leadership training to be associated with more positive change in systematic, coordinated, and collaborative strategizing.

The theoretical relation developed in this chapter provides the basis for the expectation that leadership training is associated with positive change in strategic readiness. The argument first specifies the overall causal relation, then develops the dimension-specific expression of that relation, and finally formulates the respondent-specific empirical expectations that underlie the preregistered hypotheses.

4.1 The overall causal relation

The dyad-based rationale follows from the level at which strategic readiness is specified. Strategic readiness concerns the mayor-municipal CEO relation, in which political and administrative actors with distinct mandates, responsibilities, forms of knowledge, and sources of authority work on strategic issues as an interdependent unit. Political-administrative research specifies this relation as differentiated and interdependent because elected and administrative executives contribute different forms of judgment, information, advice, authority, and accountability to public governing (Aberbach et al. 1981; Mouritzen and Svava 2002; Svava 1999, 2001). Leadership training is theoretically relevant to strategic readiness when it is directed at the joint leadership practice through which the two executive actors work with strategic issues. Day (2000) distinguishes leader development, which primarily strengthens individual human capital, from leadership development, which develops social capital and collective capacity through relations and interaction. This distinction provides a level-of-development rationale for directing the intervention toward the mayor-municipal CEO relation rather than toward either actor in isolation. It does not by itself establish the effects of dyad-based training.

The first mechanism is shared orientation. Chapter 3 introduced shared orientation as a relational process through which a strategic issue becomes a common object of work across differentiated political and administrative positions. In the causal argument, the mechanism concerns the strengthening of this process. Dyad-based leadership training may provide a common vocabulary and repeated occasions for relating political and administrative interpretations to the same strategic concern. A common vocabulary is not itself the outcome; it becomes theoretically relevant when it supports joint work on the strategic issue. Shared orientation does not imply identical diagnoses, preferences, or preferred solutions. Relational coordination research emphasizes shared goals, shared knowledge, mutual respect, and problem-solving communication in interdependent work, while stewardship perspectives explain how actors may orient differentiated contributions toward collective purposes (Bolton et al. 2021; Davis et al. 1997; Gittell 2001; Hernandez 2012). This literature supports the relevance of shared orientation. The training-specific proposition—that a shared dyadic learning setting may strengthen it—is the dissertation’s application of these arguments.

The second mechanism is repeated practice. Repeated practice is a learning mechanism concerning recurrent enactment of the trained way of working across training activities and subsequent municipal work episodes. Strategic readiness concerns recurring work with strategic issues. A single conversation, exercise, or decision moment has limited theoretical relevance for strategic readiness unless it becomes connected to repeated ways of maintaining, aligning, and developing strategic issues over time. Leadership training research shows that training

effects are associated with design and delivery features that give participants opportunities to practice, receive feedback, and return to the trained content across time (Lacerenza et al. 2017). Transfer research supports the same mechanism by showing that training becomes consequential through application and maintenance in the work setting (Baldwin and Ford 1988; Grossman and Salas 2011). Donovan and Radosevich (1999) provide a general, non-leadership-specific learning basis for distributed practice by showing an average advantage of spaced over massed practice, although the size of this advantage varies with the nature of the task. Repeated practice specifies how leadership training can be connected to systematic strategizing: Strategic issues are returned to, revisited, followed up on, and maintained as objects of strategic attention.

The third mechanism is reflection and adjustment. Leadership training can make existing ways of working available for reflection, feedback, and revision. This mechanism connects training to the dyad's examination of how it frames strategic issues, handles different interpretations, aligns political and administrative expectations, and develops possible next steps. Reflective practice research supports this part of the argument by emphasizing how professional practice can become an object of inquiry, interpretation, and revision (Cunliffe and Jun 2005; Schön 2016). Feedback research adds that feedback can make interaction, assumptions, and performance-relevant behavior available for discussion and adjustment when it is connected to the activity being learned (Henderson et al. 2019; Jug, Jiang, and Bean 2019). Diary research adds a temporal and practice-near specification to this mechanism. Diary-based approaches can capture situated experiences over time and make work episodes available for later reflection, while also acknowledging that diary writing itself may stimulate self-reflection, learning, and active thinking (Houtgraaf 2023).

Leadership diary research further supports this temporal point by showing that leadership behavior and engagement vary over time, which makes leadership practice relevant to examine as situated, recurring, and adjustable rather than only as a stable individual attribute (Breevaart et al. 2016). Action learning research provides a further basis by treating work on real organizational problems, questioning, reflection, and renewed action as central to learning in practice (Gold and Pedler 2022; Marsick and O'Neil 1999; Pedler and Burgoyne 2015). Sensemaking research adds that actors make ambiguous situations actionable by developing interpretations that organize attention and possible action (Weick et al. 2005). Reflection and adjustment therefore specify how leadership training can be connected to coordinated and collaborative strategizing. Existing interaction patterns, assumptions, interpretations, and possible courses of action become available for revision.

The fourth mechanism is application in municipal practice. Strategic readiness concerns dyadic praxis and wider municipal practices. Training-related learning becomes theoretically relevant to strategic readiness when it enters the municipality's everyday strategic work. Transfer research identifies opportunity

to perform, feedback, follow-up, support, and work environment conditions as central to the application and maintenance of trained knowledge, skills, and behavior (Baldwin and Ford 1988; Blume et al. 2010; Grossman and Salas 2011). Action learning research supports the same practice-oriented logic by treating real organizational problems as the medium through which learning is connected to action and renewed action (Bourner and Rospigliosi 2019; Gold and Pedler 2022; Marsick and O'Neil 1999). For strategic readiness, application in municipal practice concerns how the dyad's work with strategic issues enters administrative preparation, political timing, decision processes, involvement, communication, and organizational follow-up. This mechanism specifies how leadership training can be connected to wider municipal practices in which strategic issues enter administrative preparation, political timing, decision processes, engagement, communication, and organizational follow-up.

The four mechanisms are analytically distinct but interdependent and need not unfold in a fixed sequence. Shared orientation may make reflection possible; reflection may revise the basis for repeated practice; repeated practice may stabilize revised ways of working; and application determines whether these changes generalize to municipal practice. Together, the mechanisms specify a theorized process through which training-related learning may become change in the strategic dyad's strategizing, as such the four mechanisms are theoretical pathways within an integrated intervention. The four mechanisms are theoretical pathways within an integrated intervention. They are not operationalized as separate mediators, and their individual contributions are not estimated in the empirical analysis. The later analysis estimates the training/no-training difference in change associated with leadership training as delivered.

Together, the dyad-based rationale and the four mechanisms specify the causal relation between leadership training and strategic readiness. The dyad-based rationale aligns the level of leadership training with the level of the dependent variable. Shared orientation connects leadership training to a common basis for working with strategic issues. Repeated practice connects leadership training to recurrence and continuity in strategic work. Reflection and adjustment connect leadership training to feedback, inquiry, and revision of existing ways of strategizing. Application in municipal practice connects leadership training to the wider administrative and political practices through which strategic issues are prepared, coordinated, and carried forward.

Taken together, this establishes the theoretical expectation behind the comparative analysis. Leadership training is expected to be associated with more positive change in strategic readiness because it supports the strategic dyad's shared orientation, repeated practice, reflection and adjustment, and application in municipal practice.

4.2 The dimension-specific expression of the causal relation

The overall causal relation becomes more precise when it is specified through the three dimensions of strategic readiness. The mechanisms and the dimensions perform different theoretical functions. The mechanisms specify processes through which leadership training may produce change, whereas the dimensions specify the substantive content of the outcome. Their relationship is many-to-many rather than one-to-one. Repeated practice is most directly connected to systematic strategizing. Shared orientation and reflection and adjustment are especially relevant to coordinated and collaborative strategizing. Application in municipal practice is required for change in all three dimensions to enter dyadic praxis and wider municipal practices. The dimension-specific specification clarifies what kind of change the causal relation concerns. Systematic strategizing concerns recurrence, structure, continuity, and follow-up over time. Coordinated strategizing concerns the alignment of roles, expectations, interpretations, attention, timing, and action in a differentiated political-administrative relation. Collaborative strategizing concerns the joint development of interpretations, possibilities, and strategic direction through interaction. The three dimensions specify different analytical aspects of the same causal relation.

The first dimension-specific expression concerns systematic strategizing. Leadership training is expected to support systematic strategizing by strengthening the dyad's capacity to return to strategic issues, maintain them as objects of attention, follow up on them, and connect present work to longer strategic trajectories. The expected change is that strategic work becomes more recurrent, explicit, and sustained over time. Public-strategy and strategic-management research specify the substantive content of continuity, follow-up, and work over time, while leadership-training and transfer research provide the causal rationale for why repeated practice and maintenance may strengthen this content.

This expectation draws on public strategy and strategic management research where continuity, strategic attention, implementation, learning, and adaptation are central to the way public organizations work with strategic issues over time (Bryson 2017; Bryson and George 2020; George et al. 2019; Vandersmissen et al. 2022). It also draws on leadership training and transfer research, where repeated practice, feedback, application, and maintenance in the work setting are central conditions for training to become consequential for practice (Baldwin and Ford 1988; Grossman and Salas 2011; Lacerenza et al. 2017). Systematic strategizing is therefore the dimension where the causal relation is expressed as greater continuity in the dyad's work with strategic issues.

The second dimension-specific expression concerns coordinated strategizing. Coordinated strategizing refers to the alignment of roles, expectations, interpretations, attention, timing, and action. This dimension is central because the strategic dyad consists of two institutionally differentiated actors. The mayor and the municipal CEO bring different forms of authority, knowledge, responsibility, and

judgment into strategic work. Leadership training is expected to support coordinated strategizing by strengthening the dyad's shared orientation to strategic issues and by making role expectations, interpretations, and next strategizing steps more explicit. Political-administrative and relational-coordination research specify what alignment across differentiated roles consists of. Shared orientation, reflection and adjustment, and repeated application provide the theorized route through which leadership training may strengthen this alignment.

This expectation builds on political-administrative research on differentiated and interdependent executive roles. In this literature, political and administrative actors contribute distinct forms of authority, advice, information, and accountability, while public governing depends on how these contributions are related in practice (Aberbach et al. 1981; Mouritzen and Svara 2002; Svara 1999, 2001). Relational coordination research adds that coordination in interdependent work depends on shared goals, shared knowledge, mutual respect, and problem-solving communication (Bolton et al. 2021; Gittell 2001). Coordinated strategizing is hence the dimension where the causal relation is expressed as more explicit alignment between political and administrative roles, interpretations, and actions.

The third dimension-specific expression concerns collaborative strategizing. Collaborative strategizing refers to the joint development of interpretations, possibilities, and strategic direction through interaction. This dimension captures the generative side of strategic readiness. Leadership training is expected to support collaborative strategizing by strengthening the dyad's capacity to explore strategic issues together, develop possible meanings and directions, incorporate relevant perspectives, and connect joint interpretation to possible action.

Strategy-as-practice and dialogical research specify the generative content of collaborative strategizing, while reflection, action learning, and practice-near application provide the theorized route through which training may strengthen this form of strategizing. This expectation draws on strategy-as-practice research, dialogical perspectives, and action learning research. Strategy-as-practice research conceptualizes strategizing as situated activity enacted through practitioners, tools, routines, conversations, and judgment (Jarzabkowski and Spee 2009; Vaara and Whittington 2012). Dialogical and relational perspectives add that meaning and possible action are developed through interaction and responsive communication (Gergen 2009; Pearce 2007; Shotter 2011). Action-learning research further supports the role of real problems, questioning, reflection, and renewed action in learning processes connected to practice (Gold and Pedler 2022; Marsick and O'Neil 1999; Pedler and Burgoyne 2015). Collaborative strategizing is thus the dimension where the causal relation is expressed as more jointly developed interpretation, possibility formation, and strategic direction.

The preregistration concerns strategic readiness as the overall construct rather than three separate dimension-specific effects. The dimension-specific specification therefore clarifies how the overall causal expectation may be expressed

across systematic, coordinated, and collaborative strategizing. Change in the same direction across all three dimensions would indicate a dimensionally distributed expression of the causal relation, whereas change concentrated in one or two dimensions would indicate a more selective expression. The three dimensions thereby provide the analytical structure for interpreting how change in strategic readiness takes shape.

4.3 Respondent-specific empirical specifications and hypotheses

Chapter 3 developed one systematized concept of strategic readiness: the strategic dyad's systematic, coordinated, and collaborative strategizing. The preregistered hypotheses formulate expectations concerning this same concept from three institutional respondent positions. This section introduces the three respondent-specific empirical specifications presented in the preregistered hypotheses. This distinction follows from the concept's connection between dyadic praxis and wider municipal practices. The mayor and the municipal CEO provide separate questionnaire reports about their joint strategizing from positions within the strategic dyad. Directors and city councilors provide ratings from administrative and elected-political positions outside the dyad but within wider municipal practices. Directors perceive the dyad's strategizing from an administrative perspective. City councilors perceive the dyad's strategizing as politicians in the elected municipal council.

This terminology follows Adcock and Collier's (2001) distinction between a systematized concept and the indicators through which it is operationalized. The systematized concept remains constant, while respondent position affects how the concept is translated into questionnaire statements and later measures. The preregistration used the label "three systematized concepts." That wording is preserved as part of the preregistration record, while the dissertation uses the more precise terminology of respondent-specific empirical specifications.

The three positions follow the preregistered hypotheses and the institutional architecture of municipal strategizing. The mayor and the municipal CEO provide separate reports from positions within the strategic dyad. Directors and city councilors provide observer ratings from distinct administrative and elected-political positions around the strategic dyad. Self-other agreement research (Lee and Carpenter 2018; Nielsen et al. 2022) supports treating these rating sources as analytically non-interchangeable. It does not establish that one position is inherently more valid than another or provide the specific municipal respondent categories used here.

The three respondent-specific specifications concern the same underlying strategic readiness concept. All three consist of respondent-based ratings from different institutional positions. The dyad-reported specification is based on

separate questionnaire responses from the mayor and the municipal CEO rather than on one jointly completed dyad rating.

The preregistration uses three hypothesis-linked labels: strategic readiness regarding the strategic dyad, strategic readiness regarding directors, and strategic readiness regarding city councilors. In the dissertation, these labels are treated as respondent-specific empirical specifications of the same systematized concept. Each specification retains systematic, coordinated, and collaborative strategizing in the strategic dyad as its conceptual content, while respondent position determines how this content is reported or perceived and subsequently operationalized.

The hypotheses are stated in their preregistered wording. In the preregistration, all three hypotheses use “reported by” because the empirical material consists of questionnaire responses from the relevant respondent groups. In the terminology used in this dissertation, reporting refers to the act of providing questionnaire answers, while respondent position specifies the position from which the dyad’s strategizing is rated.

All three respondent-specific specifications are based on questionnaire responses to Likert-type statements. The distinction is therefore not between objective reports and subjective perceptions but between self-ratings and observer ratings. This distinction is consistent with leadership research on self-other agreement, where self-ratings and observer ratings are treated as analytically distinct rating positions (Lee and Carpenter 2018; Nielsen et al. 2022).

The wording reported by the dyad is retained for H1 because the mayor and the municipal CEO answer questions about their own strategizing as a strategic dyad. The dyad-reported specification is based on separate reports from the mayor and the municipal CEO about the strategic dyad’s systematic, coordinated, and collaborative strategizing. Strategic readiness perceived by directors and by city councilors is used for H2 and H3 because directors and city councilors answer questions about how they perceive the dyad’s strategizing from institutional positions outside the dyad.

The first respondent-specific specification is strategic readiness reported by the strategic dyad. This measure concerns the mayor and the municipal CEO’s own reports of their systematic, coordinated, and collaborative strategizing. The causal expectation is first formulated for the dyad’s combined reports because the mayor and the municipal CEO constitute the strategic dyad. Leadership training is expected to be associated with positive change in this measure when the dyad’s strategizing becomes more recurring, more explicitly aligned, and more jointly developed according to the dyad’s combined reports. This leads to the first hypothesis:

H1: Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by both mayor and CEO.

The second respondent-specific specification is strategic readiness perceived by directors. Their responses concern how the strategic dyad's strategizing is perceived through administrative preparation, coordination, follow-up, organizational development, and interaction with the strategic dyad. The causal expectation is thereby formulated for the administrative respondent position.

The second hypothesis posits a respondent-specific expectation that leadership training is associated with a more positive change in directors' perceived strategic readiness. This leads to the second hypothesis:

H2: Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by the directors.

The third respondent-specific specification is strategic readiness perceived by city councilors. Their responses concern how the strategic dyad's strategizing is perceived through political interaction, agenda-setting, preparation of strategic issues, political involvement, and the way strategic direction enters elected political work. The causal expectation is thereby formulated for the elected political respondent position.

The third hypothesis posits a respondent-specific expectation that leadership training is associated with a more positive change in city councilors' perceived strategic readiness. The third, and final, hypothesis is the following:

H3: Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by the city councilors.

Table 4.1 relates the preregistered hypotheses to the respondent-specific terminology used in the dissertation. The hypotheses retain their preregistered wording. The table specifies how each hypothesis corresponds to one respondent-specific specification and one respondent position. H1 concerns strategic readiness reported by the strategic dyad. H2 concerns strategic readiness perceived by the directors. H3 concerns strategic readiness perceived by city councilors.

The preregistered hypotheses use the wording "will increase". The empirical analysis later evaluates this expectation as a training/no-training difference in change. The causal relation is therefore specified through three respondent-specific measures. Strategic readiness is the basic concept.

Table 4.1: Preregistered hypotheses and respondent-specific empirical specifications

Hypothesis	Preregistered hypothesis wording	Preregistered concept label	Dissertation terminology	Respondent position
H1	Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by both mayor and CEO.	Strategic readiness regarding the strategic dyad	Strategic readiness reported by the strategic dyad	Internal respondent position in the strategic dyad
H2	Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by the directors.	Strategic readiness regarding directors	Strategic readiness perceived by directors	Administrative respondent position
H3	Training of the mayor and the CEO will increase the strategic readiness in the dyad reported by the city councilors.	Strategic readiness regarding city councilors	Strategic readiness perceived by city councilors	Elected political respondent position

Note: The preregistration used three hypothesis-linked concept labels. The dissertation preserves these labels in the preregistration column but treats strategic readiness as one systematized concept and the three formulations as respondent-specific empirical specifications, later operationalized in separate measures. The change is terminological rather than substantive: the conceptual content of all three formulations is identical, consisting of the strategic dyad's systematic, coordinated, and collaborative strategizing, and what differs between them is the institutional position from which that content is reported or perceived. In the terminology of Adcock and Collier (2001), this places the difference at the level of indicators and measurement procedures rather than the level of conceptualization. The preregistered hypothesis wording is retained unchanged.

4.4 Summary of the causal argument

Leadership training is specified as the independent variable in the causal argument. Strategic readiness is specified as the dependent variable and defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. The causal relation between the two is developed through a dyad-based rationale and four mechanisms: shared orientation, repeated practice, reflection and adjustment, and application in municipal practice.

The dyad-based rationale aligns the level of leadership training with the level of the dependent variable. Strategic readiness concerns the mayor and the municipal CEO's joint strategizing, and therefore the theoretical expectation concerns leadership training directed at the dyad's work with strategic issues. Shared orientation specifies how leadership training can support a common language and common object of attention in the dyad's work. Repeated practice specifies how leadership training can support recurrent work with strategic issues over

time. Reflection and adjustment as a mechanism specify how leadership training can make existing ways of strategizing available for revision. Application in municipal practice specifies how training-related learning can enter the administrative and political practices through which strategic issues are prepared, coordinated, and carried forward.

The causal relation is expressed through the three dimensions of strategic readiness. Systematic strategizing concerns continuity, recurrence, structure, and follow-up over time. Coordinated strategizing concerns the alignment of roles, expectations, interpretations, attention, timing, and action in the differentiated political-administrative relation. Collaborative strategizing concerns the joint development of interpretations, possibilities, and strategic direction through interaction. The dimensions specify different analytical aspects of the same causal relation.

The three respondent-specific measures indicate how the same causal expectation is formulated from distinct institutional positions. Strategic readiness remains the one systematized concept. Strategic horizons specify its issue-specific orientation under complexity and turbulence, while respondent position determines how the concept is reported or perceived and later operationalized in separate measures. H1 concerns strategic readiness reported by the strategic dyad. H2 concerns strategic readiness perceived by directors. H3 concerns strategic readiness perceived by city councilors.

The causal argument leads to the theoretical expectation that leadership training is associated with positive change in strategic readiness. The preregistered hypotheses use the wording “will increase”. The empirical analysis later evaluates this expectation as a training/no-training difference in change across the three respondent-specific measures.

5. Operationalizing leadership training as a planned leadership training program

Chapter 5 specifies how leadership training is operationalized in the planned leadership training program used in the study. The program is organized as a dyad-based, practice-near, transfer-oriented, dialogical, reflective, cumulative, and horizon-oriented training design directed at dyadic strategizing.

The planned program takes the strategic dyad as its immediate unit of training. It organizes their work on strategic issues through strategic cases, shared facilitating tools and inspirations, feedback, diary work, touchdowns, and repeated movement between the training setting and municipal practice. These program elements operationalize the theoretical mechanisms developed in Chapter 4. Shared orientation is operationalized through a common language for working with strategic issues. Repeated practice is operationalized through a cumulative sequence of modules and intermedia activities. Reflection and adjustment are operationalized through dialogue, feedback, and structured reflection. Application in municipal practice is operationalized through strategic cases and work between training activities.

The program focuses on how the mayor and the municipal CEO work on strategic issues outside, around, and between formal decision-making processes. This includes how strategic issues are interpreted, discussed, aligned, developed, and prepared for movement into administrative and political arenas. The chapter also specifies the relation between dimensions and training domains. Systematic, coordinated, and collaborative strategizing are the dimensions of strategic readiness. They specify the conceptual content developed in Chapter 3. ‘Relation’, ‘dialogue’, ‘develop’, and ‘doing’ are training domains. They specify the didactic areas through which the planned program organizes the dyad’s work with strategic issues. A training domain is a didactic area of work in the planned program, while a dimension is a conceptual aspect of strategic readiness.

5.1 Dyadic strategizing as the object of training

The training is directed at dyadic strategizing. The mayor and the municipal CEO participate together because the training object is their joint strategizing. The program uses this differentiated relation as the training setting. It is intended to provide the mayor and the municipal CEO with a structured setting in which political and administrative perspectives are brought into dialogue on concrete strategic issues.

Dyadic strategizing includes both praxis and practices. Praxis refers to the dyad’s internal work of interpreting, aligning, testing, and working out direction. Practices refer to the outward-facing forms through which direction is translated,

coordinated, stabilized, and enacted in relation to directors, the wider administration, the city council, and other relevant arenas. The training program is, therefore, directed at the connection between the dyad's internal work with strategic issues and the wider municipal practices into which that work is carried. Together, the training is intended to give the strategic dyad a structured way of working with how strategic issues become intelligible, how political and administrative interpretations are aligned, how possible directions are developed, and how movement into administrative and political arenas is prepared.

Strategic cases and shared facilitating tools and inspiration are the medium through which the dyad engages in strategizing during training. A strategic case gives the dyad an opportunity to work with a concrete issue. In addition, the case gives the dyad an opportunity to identify what matters, clarify what remains uncertain, discuss what is at stake, consider who may need to be involved, and prepare to advance the issue. The case gives the training object a practical form. It allows the dyad to work on both the strategic issue and its own way of strategizing.

5.2 The preregistered training architecture

The leadership training program was specified as a three-module training sequence for the strategic dyads, with two touchdowns between the modules. The architecture combines concentrated module work with structured follow-up, diary work, feedback, strategic case-work, and movement between the training setting and municipal practice.

The program was planned as a scripted training sequence. Each module was specified through prepared scripts, defined learning objectives, training materials, presentations, exercises, strategic cases, and a six-hour training format. The touchdowns were specified as structured follow-ups between modules. Diary work was included to support reflection and continuity across the training sequence. Feedback was built into the modules, dyadic work, and interactions between trainers and participants. Documentation procedures were included to make the relation between planned architecture and later implementation traceable.

The architecture is organized around two movements. The first movement is temporal. The sequence moves from Module 1 to, Touchdown 1, Module 2, Touchdown 2, and ends with Module 3. This temporal structure gives the program continuity across time. The second movement is didactic. The program moves from guided entry into dyadic strategizing, through comparison and reflection across dyads, toward more autonomous work with the dyad's own strategic issues. This didactic structure gives the program progression.

Table 5.1 provides an overview of the planned training architecture. The table shows how the three modules and two touchdowns are sequenced, how each element is organized, which strategic material each element was designed around, which horizon orientation it emphasized, and which didactic function it

performed in the planned program. It also shows the staged character of the planned program. Module 1 was designed to introduce the training logic in a protected dyadic setting. Touchdown 1 was designed to reconnect this initial work to municipal practice. Module 2 was designed to introduce comparison and peer reflection across dyads through more complex case material. Touchdown 2 was designed to maintain continuity between the joint modules and to prepare the dyad for its own case. Module 3 was designed to consolidate the training sequence through more autonomous work with the dyad's own strategic issue. The architecture gives the planned program both continuity and staged development.

Table 5.1: Overview of the planned training architecture

Program element	Module 1	Touchdown 1	Module 2	Touchdown 2	Module 3
Format	Individual module for each strategic dyad	Online follow-up with each dyad	Joint module with all strategic dyads	Online follow-up with each dyad	Joint module with all strategic dyads
Didactic function	Establishing the dyad as a learning relation	Reconnecting the first module to ongoing municipal practice	Comparison, mirroring, and peer reflection across dyads	Continued reflection and recalibration before choosing own case	Articulation, peer feedback, and consolidation
Planned progression	Guided entry into dyadic strategizing	Early reflection, feedback, and recalibration	Broader strategizing repertoire and more transferable use of the training logic	Transition toward more autonomous work in Module 3	More autonomous use of the training logic in relation to the dyad's own strategic issue
Cross-cutting didactic components	Repetition, feedback, diary work, reflection, and cumulative stabilization across the training				

5.2.1 Learning objectives as didactic language

The program's learning objectives were formulated in the preregistration labeled "specific competences", "meta-competences", and "learning capacity". These labels belong to the program's didactic language. They describe how learning was organized pedagogically.

Specific competences concerned concrete knowledge, skills, and actions that the dyad was expected to apply during the training sequence. Meta-competences concerned transferable forms of strategic work across situations. Learning

capacity concerned the dyad's ability to continue learning from its own strategizing beyond the formal training sequence.

The emphasis changed across the modules. Module 1 placed the strongest emphasis on specific competences because the dyad was to be introduced to the program's basic distinctions, tools, and way of working. Module 2 placed greater emphasis on meta-competences because the dyad was to work with more complex strategic issues and compare its strategizing with other dyads. Module 3 placed the strongest emphasis on learning capacity because the dyad was to work more autonomously with its own strategic case and receive feedback from other dyads.

Table 5.2 summarizes the intended pedagogical progression across the three modules. The progression moves from guided entry, through transferable use, and toward more autonomous learning from the dyad's own strategizing. The table uses the program's didactic language. The theoretical vocabulary is strategic readiness; the strategic dyad; strategic horizons; and systematic, coordinated, and collaborative strategizing.

Table 5.2: Weighting of learning objectives across modules

Weighting of learning objectives	Specific competences	Meta-competences	Learning capacity
Module 1	High	Medium	Low
Module 2	Low	High	Medium
Module 3	Medium	Low	High

5.2.2 Module 1: Guided entry into the dyad's strategizing

Module 1 was specified as an individual module for each strategic dyad. The planned format placed the mayor and the municipal CEO together without the other dyads present. The intention was to create a bounded training setting for entering the program from its own starting point. For the same reason, the training was also held on the municipality's own premises.

The module was designed to introduce the basic training logic and position the strategic dyad as the immediate learning unit. The mayor and the municipal CEO were to work with their own relation, with strategic issues, and with the first tools to make their strategizing explicit and discussable. The module also introduced diary work and feedback as recurring parts of the training sequence.

The strategic work in Module 1 was planned as guided and relatively bounded. The case material was designed to give the dyad an entry into horizon-oriented strategizing from a situation that could be approached from a more articulated and manageable starting point. In the language developed in Chapter 3,

this corresponds most to the ready known future. The dyad was to work on a strategic issue, with the main task of entering the training logic, articulating interpretations, and beginning to use the program's tools in a shared way.

The function of Module 1 was therefore foundational. It specified the first training space in which the dyad could work explicitly with how it approaches strategic issues, how it uses dialogue, and how it prepares movement from shared interpretation toward possible action.

5.2.3 Touchdown 1: Connecting module work to ongoing municipal practice

Touchdown 1 was specified as the first follow-up between modules. It was planned as an online follow-up with each dyad. Its function was to reconnect the first module to the dyad's ongoing everyday municipal practice.

The touchdown was designed as a structured return to the training material. The dyad was to revisit takeaways from Module 1, reflect on the use of tools and models, discuss diary work, and consider how the first module had entered its everyday strategic work. This gave the dyad a planned opportunity to articulate early experiences before the next formal training session.

Touchdown 1 extended the program beyond the module format. It connected the training setting to the dyad's ordinary work between sessions. It also supported continuity by providing the dyad with a structured point for reflection, feedback, and recalibration before Module 2.

5.2.4 Module 2: Comparison, mirroring, and peer reflection

Module 2 was specified as a joint module with all participating dyads. This shifted the planned format from individual dyad training to a collective training setting. Each strategic dyad remained the immediate learning unit, while the presence of other dyads introduced comparison, mirroring, and peer reflection as didactic resources.

The module was designed around more complex strategic case material. The case included broader constellations of actors, greater exposure to complexity and turbulence, and a less settled strategic situation than the case used in Module 1. In the language developed in Chapter 3, Module 2 moved the dyads toward work with the unready known future and the ready unknown future. This means that the dyads were to work on issues where articulated developments, organizational readiness, uncertainty, and possible responses had to be considered in relation to one another.

The joint format was designed to make different ways of strategizing available for comparison and peer reflection. Dyads were to examine how other mayor-municipal CEO pairs framed strategic issues, used the tools, distributed attention, involved others, and moved from interpretation toward possible action. This

comparison was intended to widen the repertoire of possible strategizing practices and give each dyad a clearer basis for reflecting on its own way of working.

Module 2, therefore, extended the planned training beyond guided entry. It placed the dyad's strategizing in relation to other dyads and used peer reflection to make alternative approaches available for discussion. This supported a shift from the initial use of the training logic toward more transferable work on strategic issues.

5.2.5 Touchdown 2: Recalibration between modules

Touchdown 2 was specified as the second follow-up between modules. It was planned as an online follow-up with each dyad. Its function was to reconnect the second module to ongoing municipal practice and to prepare the dyad for the final module.

The dyad was to revisit its use of tools, reflect on what had happened since Module 2, discuss diary work, and consider how the more complex case work had affected its own strategizing. The touchdown also provided an opportunity to identify what it wanted to bring into Module 3 in which the work became more closely connected to the dyad's strategic context.

Touchdown 2 focused on continuity and recalibration. It was designed to help the dyad carry experience from Module 2 into municipal work and then back into the training process. The touchdown sustained the program's cumulative structure by connecting reflection, application, and renewed strategic work.

5.2.6 Module 3: Own case, articulation, and consolidation

Module 3 was specified as a joint module with all participating dyads. The final module had a consolidating function. At this point in the planned progression, the dyad was to work more autonomously with the training logic and use the program's tools in relation to its own strategic case.

The use of the dyad's own case gave Module 3 a distinct status in the planned program architecture. The strategic issue was now more directly connected to the dyad's own municipal context. The dyad was to articulate how it understood the issue; how it approached the strategic horizon involved, how it worked through 'relation', 'dialogue', 'develop', and 'doing', and how the strategic work could be prepared for movement into wider municipal practice.

In the language developed in Chapter 3, Module 3 was oriented toward the unready unknown future, where both direction and readiness may remain open and require exploratory interpretation. This made the final module a training situation in which the dyad was to apply the program's logic to a strategically demanding issue from its own context.

Peer feedback played a central role in the planned module. Each dyad was to articulate its strategizing in a form that could be examined by others. Other dyads were intended to function as reflective resources by asking questions, offering

observations, and making alternative approaches available for discussion. This strengthened the module's consolidating function by situating the dyad's own strategizing within a broader comparative training setting.

Module 3, therefore, completed the planned staged progression of the program. The dyad moved from guided entry through comparison and reflection, toward more autonomous use of the training logic in relation to its own strategic issue.

5.2.7 Cross-cutting didactic components and documentation

The planned architecture is held together by four cross-cutting didactic components. The training material consisted of strategic cases. Diary work was planned to provide continuity to reflection across modules and touchdowns. Feedback was planned to provide the dyad with material for examining and adjusting its approach to working with strategic issues. Documentation was included to create a record of the relation between planned architecture and later implementation.

Strategic cases give the training object a concrete form. They give the dyad strategic issues to interpret, align, develop, and prepare. The cases also support progression across the modules. Earlier case work is more guided and bounded, whereas later case work becomes more comparative, situated, and autonomous.

Diary work connected the modules to the dyad's ongoing training. Participants were asked to reflect on the use of tools, their experiences with the training material, changes in the dyad's own work, and possible implications for wider municipal relations. The diary was intended to give participants a way to document their experiences and return to them throughout the training process. It was also intended to help connect individual reflection, dyadic conversation, and later training activities.

Feedback was integrated throughout the program. It appeared as trainer feedback, dyad feedback, and peer feedback across dyads. Feedback was introduced to direct attention to how the dyad entered issues, framed them, used dialogue, developed possibilities, prepared next steps, and involved others. Together, these feedback forms gave the dyad a structured basis for reflecting on its own practice.

Documentation was also part of the training architecture. The preregistered design specified training materials, scripts, presentations, touchdown communication, diaries, video recordings, and photographs. These materials were specified to document the planned program and later support the account of implementation.

The preregistered architecture specifies the planned training. It defines the program as a staged, dyad-based, transfer-oriented, dialogical, reflective, cumulative, and horizon-oriented training sequence. The next section specifies the training domains and tools that give this architecture its practical structure.

5.3 Training domains and tools

A training domain is a didactic area of work in the training program. It specifies where the strategic dyad directs attention when working with strategic issues in the training setting. The planned program was organized around four training domains: ‘relation’, ‘dialogue’, ‘develop’ and ‘doing’. Relation concerns the relational conditions of joint strategizing within the strategic dyad. Dialogue concerns the way strategic issues are selected, framed, questioned, and discussed. Develop concerns the exploration of inspiration, alternatives, involvement, and possible directions. Doing concerns the preparation of strategic work for process, communication, mobilization, and movement into wider municipal practice. Together, ‘relation’, ‘dialogue’, ‘develop’ and ‘doing’ abbreviated as R3D and used as a template to facilitate strategizing in the strategic dyad.

The four domains were specified as a staged didactic structure. In Modules 1 and 2, the domains were planned as a sequential entry into strategic work using the R3D template. In Module 3, the same four domains were designed as navigational positions in the strategizing compass. The movement from the R3D template to the compass was part of the planned learning progression. The early modules used the domains to establish a shared and ordered language for strategic work. The final module used the same domains to support more autonomous and iterative work with the dyad’s own strategic case.

This progression follows the program’s learning objectives. Module 1 placed the strongest emphasis on specific competences. Module 2 placed the strongest emphasis on meta-competences. Module 3 placed the strongest emphasis on learning capacity. The R3D template was introduced to support the first two steps by giving the dyad an ordered entry into relation, dialogue, develop, and doing. The strategizing compass was introduced to support the final step by giving the dyad a way to move between the same domains when working more independently with its own strategic issue.

5.3.1 Sequential introduction and compass-based integration

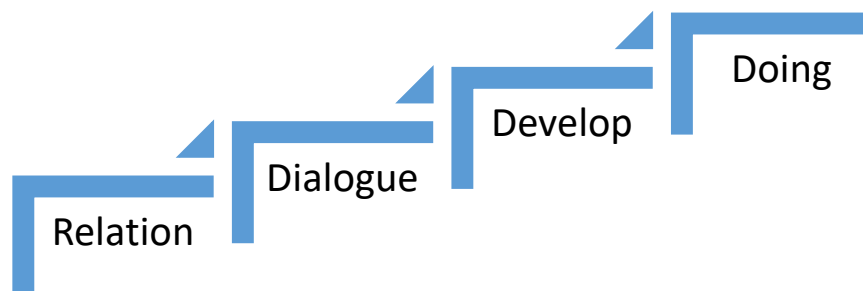
The R3D template was specified as the didactic representation for the early part of the program. It organized ‘relation’, ‘dialogue’, ‘develop’, and ‘doing’ as a sequence. The planned sequence began with the dyad’s strategic relation, moved into dialogue about the strategic issue, continued with the development of possible directions, and ended with preparation for engaging the wider municipal practice. The template was intended to give the mayor and the municipal CEO an orderly entry into the program’s approach to working with strategic issues.

The sequential structure had a distinct function in Module 1. The dyad was introduced to the basic training logic, the language of the four domains, and the connection between strategic cases, feedback, reflection, and action learning. The

R3D template separated the domains into recognizable steps and was designed to make the training logic explicit and teachable.

Figure 5.1 illustrates the R3D template as the sequential didactic representation of the four training domains. It presents ‘relation’, ‘dialogue’, ‘develop’, and ‘doing’ as an ordered entry into the strategic work of the dyad.

Figure 5.1: The R3D template



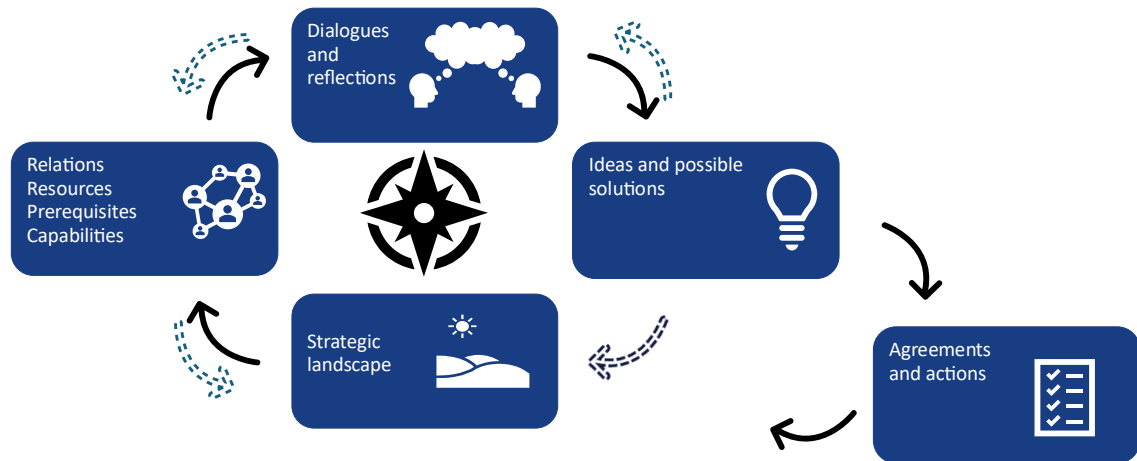
Module 3 had a different didactic emphasis. The learning objective shifted toward learning capacity, and it was planned that the dyad would work more autonomously with its own strategic case. The strategizing compass was specified for this part of the program as an integration of the four domains. ‘Relation’, ‘dialogue’, ‘develop’, and ‘doing’ remained the domains of the training program. The didactic representation changed from ordered entry to navigation between domains.

This distinction is important for interpreting the training design. The R3D template supported sequential introduction in the earlier modules. The strategizing compass supported more autonomous use of the same domains in the final module. The progression, therefore, followed the program’s learning objectives from specific competences, through meta-competences, toward learning capacity.

The compass also expressed a central assumption in the training design. A strategic issue may require the dyad to return to relation, reopen dialogue, develop new possibilities, or reconsider how strategic work can be carried into practice. The compass was introduced as a didactic framework for navigating the four domains when addressing a strategic issue.

Figure 5.2 illustrates the strategizing compass. The compass retains the same four domains as the R3D template but represents them as navigational positions rather than as a fixed sequence providing graphical support for the dyad to move between ‘relation’, ‘dialogue’, ‘develop’ and ‘doing’ depending on how the strategic issue is grasped and addressed. Some strategic issues may lead quickly toward ‘doing’. Other issues may require renewed attention to ‘relation’, ‘dialogue’, or ‘develop’ before action can be prepared. The compass gives the dyad a practical tool for working with strategic issues in a structured and responsive way.

Figure 5.2: The strategizing compass



The R3D template and the strategizing compass belong to the same training logic. The template provides a sequential entry into the four domains, whereas the compass provides a navigational representation of the same domains. Together, they give the four domains a stable but flexible role in the planned training sequence.

5.3.2 Relation as a training domain

Relation is the first training domain. It concerns the strategic dyad as a working relation. The domain was specified to direct attention to how the mayor and the municipal CEO relate to one another when addressing strategic issues. The point was not to train personal relations in general but to give the dyad a structured way of working with the relational conditions for dyadic strategizing.

The preregistered learning objectives connected relation to three abilities. The first was the ability to give feedback; the second was the ability to receive feedback and learn from it; and the third was the ability to build a trust-based relation in the dyad. These learning objectives gave the relation domain concrete didactic content. Feedback was specified as both a skill and a way of making the dyad's work with strategic issues explicit and discussable. Trust was specified as a condition for working constructively with differences in the political-administrative relation.

The relation domain was planned to give the dyad a way to work with differences as part of strategic work. Relation also connects the dyad's internal praxis to wider strategic practices. In dyadic praxis, the domain concerns how the mayor and the municipal CEO work with feedback, trust, role awareness, and mutual expectations in their interactions. In wider strategic practices, the same relational work matters for how the dyad involves directors, city councilors, employees, external actors, and other participants in strategic work. Therefore, the relation domain gave the planned program a way of placing the dyad's own working relation

at the beginning of strategic work without reducing strategizing to an internal conversation between two actors.

5.3.3 Dialogue as a training domain

Dialogue is the second training domain. It concerns the interpretive work through which strategic issues are selected, framed, questioned, and discussed. The domain was specified to highlight how the dyad makes strategic issues available for joint work. As a result, dialogue is not treated as ordinary conversation. It is treated as a didactic area for working with attention, interpretation, disagreement, and strategic meaning.

The preregistered learning objectives connected dialogue to three abilities: the ability to identify and focus on important strategic agendas, the ability to reflect on important strategic agendas, and the ability to have strategic dialogues. These learning objectives assigned a specific function to dialogue in the planned training sequence. The domain was designed to help the dyad work with which issues deserve strategic attention, how those issues are understood, and how political and administrative interpretations are brought into relation.

Dialogue is central because strategic issues rarely appear as fully articulated objects. They have to be framed before they can be aligned, developed, or prepared for movement into wider municipal practice. The mayor may approach an issue through political salience, democratic concerns, public legitimacy, and room for political action, whereas, the municipal CEO may approach the same issue through organizational consequences, administrative feasibility, managerial capacity, and implementation conditions. The dialogue domain was specified to give the dyad a way of working with these different interpretations before direction is stabilized.

The domain also connects strategic horizons to the planned program. Strategic horizons were used as a didactic orientation for discussing how a strategic issue is grasped and addressed in relation to future knowability and issue-specific organizational preparedness. Dialogue was planned as the domain where the dyad could examine whether an issue appeared relatively bounded, insufficiently prepared for, uncertain, ambiguous, or moving between these conditions. This made dialogue a didactic entry point for horizon-oriented strategizing.

5.3.4 Develop as a training domain

Develop is the third training domain. It concerns the generative work through which the dyad explores inspiration, alternatives, involvement, and possible directions. The domain was specified to direct attention to the part of strategic work where the dyad moves beyond initial interpretation and begins to develop what the issue could become.

The preregistered learning objectives connected develop to six abilities: the ability to engage in and facilitate creative dialogue, the ability to identify sources

for inspiration, the ability to involve others in the strategic work, the ability to seek new inspiration for the strategic work, the ability to identify new possibilities for the organization, and the ability to use inspiration from others. These learning objectives gave develop a broad didactic content. The domain was planned to make exploration, inspiration, involvement, and possibility formation part of the dyad's work with strategic issues.

Develop addresses strategic issues that may be incomplete, contested, or difficult to delimit under complexity and turbulence. The dyad may need to test alternative framings, identify relevant sources of knowledge, consider who should be involved, and explore possible directions before preparing action. The develop domain was specified to give the dyad a structured arena for this generative work.

Develop also connects dyadic praxis with wider strategic practices. In dyadic praxis, the mayor and the municipal CEO work with what the issue could become and which strategic directions may be possible. In wider strategic practices, develop concerns how other actors, knowledge sources, and perspectives can be brought into the strategic work. Directors, city councilors, employees, citizens, external partners, and other municipalities may become relevant depending on the issue. The develop domain, therefore, gave the planned program a way to move from internal exploration in the dyad toward broader involvement in municipal strategizing.

5.3.5 Doing as a training domain

Doing is the fourth training domain. It concerns the preparation of strategic work for processes, communication, mobilization, and movement into wider municipal practice. The domain was specified to direct attention to how strategic work can be carried beyond the training setting and into administrative and political arenas.

The preregistered learning objectives connected doing to three abilities: the ability to create a plan for a strategic process, the ability to communicate strategy to the surroundings, and the ability to mobilize the organization. These learning objectives gave doing a practical and outward-facing function in the planned program. The domain concerns preparation for action rather than implementation in a narrow administrative sense.

Doing addresses the point at which dyadic strategizing is prepared for engaging in wider municipal practices. A strategic issue may become intelligible within the dyad but still need preparation for movement into the municipal organization and the political system. The doing domain was specified to give the mayor and the municipal CEO a way to work out who should be involved, how the issue should be sequenced, how political and administrative arenas should be connected, how communication should be prepared, and how organizational mobilization can be supported.

In dyadic praxis, doing concerns how the mayor and the municipal CEO prepare the next steps together. In wider strategic practices, doing concerns how strategic work enters executive board processes, administrative coordination, committee work, council processes, communication, and organizational mobilization. The doing domain provided the planned program with a practical basis for translating dyadic strategizing into forms that can orient, involve, and mobilize others.

5.3.6 Learning goals across the four domains

The four training domains were made concrete through the preregistered learning goals. ‘Relation’, ‘dialogue’, ‘develop’, and ‘doing’ each specify a didactic area of work in the planned training program. The learning goals specify the abilities that the program was designed to work with within each domain. The learning goals align with the program’s didactic language and specify how the planned training sequence is intended to provide the mayor and the municipal CEO with structured ways of working with dyadic strategizing in the training setting.

Table 5.3 specifies how each domain was given concrete didactic content in the planned training sequence. Each domain was designed as a practical entry point into dyadic strategizing, while the dimensions of strategic readiness specify the analytical aspects through which change is later interpreted. ‘Relation’ directs attention to feedback, learning from feedback, and trust in the dyad. ‘Dialogue’ directs attention to strategic agendas, reflection, and strategic dialogue. ‘Develop’ directs attention to creative dialogue, inspiration, involvement, and new possibilities. ‘Doing’ directs attention to planning, communication, and mobilization. In addition, the table provides a didactic specification of the planned program.

Table 5.3: The learning goals across the four domains

	Specific competences	Metacompetences	Learning capacity
Relation	The ability to give feedback	The ability to receive feedback and learn from it	The ability to build a trust-based relation in the dyad
Dialogue	The ability to identify and focus on important strategic agendas	The ability to reflect on important strategic agendas	The ability to have strategic dialogues
Develop	The ability to engage in and facilitate a creative dialogue The ability to identify sources for inspiration	The ability to involve others in the strategic work The ability to seek new inspiration for the strategic work	The ability to identify new possibilities for the organization The ability to use inspiration from others
Doing	The ability to create a plan for a strategic process	The ability to communicate strategy to the surroundings	The ability to mobilize the organization

The domains and learning goals specify the planned training by providing concrete didactic content for relation, dialogue, development of possibilities, and preparation of action.

5.4 Training domains and the dimensions of strategic readiness

The relationship between training domains and dimensions is didactic and cross-cutting. ‘Relation’, ‘dialogue’, ‘develop’, and ‘doing’ provide practical entry points into the dyad’s work with strategic issues. Systematic, coordinated, and collaborative strategizing provide the dimensions through which strategic readiness is conceptually specified. The same strategic issue can be addressed across several domains, and each dimension can be addressed in more than one domain.

Table 5.4 specifies how the four training domains were intended to provide the dyad with different didactic entry points into strategizing. ‘Relation’ directs attention to the relational conditions of joint strategizing within the strategic dyad. ‘Dialogue’ directs attention to how strategic issues are selected, framed, questioned, and discussed. ‘Develop’ directs attention to inspiration, alternatives, involvement, and possible directions. ‘Doing’ directs the attention to process, communication, mobilization, and movement into wider municipal practice. The table specifies the intended relationship between training work and the dimensions of strategic readiness.

The domains specify how the planned program organizes training work. The dimensions specify what strategic readiness means conceptually. Relation, dialogue, develop, and doing give the planned program its practical structure. Systematic, coordinated, and collaborative strategizing gives strategic readiness its conceptual structure. The training domains provide didactic entry points into dyadic strategizing, while the dimensions provide the analytical structure through which change in strategic readiness is later interpreted.

Table 5.4: Intended didactic relationship between training domains and dimensions of strategic readiness

Training domain	Didactic function in the planned training program	Intended relevance for systematic strategizing	Intended relevance for coordinated strategizing	Intended relevance for collaborative strategizing
Relation	Directs attention to the relational conditions of joint strategizing within the strategic dyad	Intended to make relational attention, feedback, and follow-up recurring parts of the dyad's work with strategic issues	Intended to give the dyad ways of clarifying roles, expectations, trust, and feedback in the political-administrative relation	Intended to support mutual engagement, openness to difference, and shared responsibility in strategic work
Dialogue	Directs attention to the selection, framing, questioning, and discussion of strategic issues	Intended to make strategic agendas, issue framing, and strategic conversations more deliberate and recurring	Intended to support the alignment of interpretations, priorities, attention, and role expectations around strategic issues	Intended to support joint reflection, shared meaning-making, and the development of common strategic orientation
Develop	Directs attention to inspiration, alternatives, involvement, and possible directions	Intended to make the search for inspiration, alternatives, and possible directions more deliberate and sustained	Intended to support joint prioritization, involvement of relevant actors, and alignment around emerging possibilities	Intended to support joint development of interpretations, possibilities, and strategic direction through interaction
Doing	Directs attention to the process, communication, mobilization, and movement into wider municipal practice	Intended to support planning, sequencing, follow-up, and preparation of next steps	Intended to support agreements, communication, mobilization, and coordination across administrative and political arenas	Intended to support shared commitment to carrying strategic work beyond the dyad and into wider municipal practice

5.5 Summary of leadership training as the planned training

Leadership training has been operationalized as a planned program directed at dyadic strategizing. The program addresses the mayor and the municipal CEO as one joint training unit and organizes their work on strategic issues through strategic cases, shared tools, feedback, diary work, touchdowns, modules, and repeated movement between the training setting and municipal practice.

The planned program has a specified didactic structure. The operational principles specify how the theoretical argument from Chapter 4 is expressed in

program design. The training architecture organizes the temporal sequence of modules and intermediate activities. ‘Relation’, ‘dialogue’, ‘develop’, and ‘doing’ specify the training domains through which the dyad addresses strategic issues. The learning goals specify the abilities the program was designed to address within each domain.

The immediate object of training is dyadic strategizing. The training domains provide practical entry points into this work, while systematic, coordinated, and collaborative strategizing provide the dimensions through which subsequent changes in strategic readiness are interpreted. The planned program therefore operationalizes leadership training as structured work, using the strategic dyad’s approach to identifying, discussing, aligning, developing, and preparing strategic issues for movement into wider municipal practice.

Part 2. Research design, empirical material, and measurement construction

Part 2 establishes the empirical basis for the comparative analysis. Part 1 developed the strategic readiness concept, specified the expected causal relation between leadership training and strategic readiness, and operationalized leadership training in the planned leadership training program. Part 2 specifies how this theoretical and operational foundation is organized empirically. The task is to establish the comparative research design, document leadership training as delivered, present the empirical material, prepare the questionnaire data for analysis, and construct the respondent-specific measures of strategic readiness used in the analysis.

Chapter 6 specifies the research design. The chapter first addresses researcher positionality and field access in an elite-level municipal field. It then explains how the municipal comparison is structured through Most Similar Systems Design, how municipal size is incorporated through stratification, how recruitment is organized through randomized contact order, and how assignment to leadership training and no-training takes place after baseline measurement. The chapter thereby establishes the design basis for estimating training/no-training differences in change.

Chapter 7 documents leadership training as implemented. It reports how the planned leadership training program was delivered to the municipalities assigned to leadership training. The chapter presents the delivered training architecture, the module sequence, activities between modules, touchdowns, diary work, feedback, implementation documentation, and deviations from planned delivery. The purpose is to establish what leadership training consisted of in practice before the empirical analysis estimates training/no-training differences in change.

Chapter 8 presents the empirical material, data preparation, confidentiality, ethics, and reporting. The questionnaire material provides the basis for constructing the measures of strategic readiness. Implementation documentation records delivered leadership training and supports the interpretation of what was delivered in the training municipalities. The chapter also specifies how recognition risk, confidentiality, and pseudonymization shape the reporting strategy in a small elite-level municipal field.

Chapter 9 presents the questionnaire material used for measurement construction and comparative analysis. It identifies questionnaire records, item answers, respondent groups, measurement waves, municipality identifiers, training status, strata, and role information. The chapter also presents the item pools organized by respondent-specific measure and dimension. It thereby prepares the

link between questionnaire answers and the scale and index construction carried out in Chapter 10.

Chapter 10 constructs the respondent-specific measures of strategic readiness. It presents the factor-analytic diagnostics, substantive item evaluation, final dimension scales, and overall index calculation. The chapter constructs measures for strategic readiness reported by the strategic dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. These measures preserve the distinction between respondent positions and between systematic, coordinated, and collaborative strategizing.

Taken together, Part 2 establishes the empirical basis for the analysis. It specifies how the comparison is designed, how leadership training is documented as delivered, how the empirical material is prepared and reported, and how strategic readiness is constructed as respondent-specific measures. Part 3 uses these measures to estimate training/no-training differences in change.

Terminology introduced in Part 2.

Part 2 uses the concepts from Part 1 at different empirical levels. *Strategic readiness* remains the central theoretical concept and denotes the strategic dyad's systematic, coordinated, and collaborative strategizing. In the empirical design, the systematized concept of strategic readiness is specified from three respondent positions: strategic readiness reported by the strategic dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. In the measurement construction, these three specifications are operationalized as respondent-specific measures. Each measure consists of three dimension scales — systematic, coordinated, and collaborative strategizing — and one overall index formed as the mean of the three dimension scales. The empirical comparison estimates training/no-training differences in change in these respondent-specific measures at the municipal level

6. Research design

The study examines leadership training in an elite-level municipal field where the mayor and the municipal CEO constitute the strategic dyad. Access to this field is politically and administratively limited and sensitive, and this project depends on participation from both executive actors in each municipality. As such, the design task is to turn access to a difficult field into a structured comparison of change in strategic readiness.

My position as vice director at Komponent opened access to this field. The design task is to organize this access into a structured comparison research design. The chapter first specifies how the researcher's positioning and field access shaped the study. It then explains how the comparative design delimits municipalities, incorporates municipal size, structures recruitment, introduces assignment to leadership training and no-training, documents implementation, and prepares the empirical analysis of change. The chapter establishes this design basis.

6.1 Researcher positionality and field access

The dissertation is conducted as an industrial PhD at Komponent, an organization that works with leadership and professional development in Danish municipalities. Komponent is collectively owned by the Danish municipalities and is operated as a nonprofit organization. My role as vice director in Komponent includes advisory and coaching work with mayors and municipal CEOs. This work may concern their individual executive roles or their collaboration as a political-administrative apex. This professional position gave me access to mayors and municipal CEOs and made it possible to recruit strategic dyads into a common training and measurement sequence.

This access is central to the research design. Mayor-municipal CEO dyads are an elite-level municipal group that is difficult to access through standard recruitment procedures. Additionally, participation requires acceptance from both executive actors in each municipality, and the study involves leaders whose strategic work is politically, administratively, and organizationally sensitive. The industrial PhD format also places the project in a relation between research and professional practice. Knowledge from the study is expected to be relevant for the advisory field from which access was generated, giving the study a practice-embedded position that opens the field and, at the same time, requires explicit design handling.

Researcher positionality is therefore treated as a design condition. Positionality and insider-research scholarship show that the researcher's social and professional position can shape access, pre-understanding, role expectations, interaction, and interpretation (Berger 2015; Bourke 2014; Brannick and Coghlan

2007). Elite-methods research similarly treats access and rapport as constitutive methodological issues rather than neutral preliminaries (Harvey 2011; Mikecz 2012; Ostrander 1993). These literatures are primarily developed in qualitative and interview-based research. Applied here, they justify making my dual practitioner-researcher position explicit; the specific procedural responses used in this intervention study are design choices developed for the present setting. In this study, my position both opened the field and created the possibility that prior familiarity and professional role expectations could influence recruitment, participation, engagement, or reporting

The design handles this positioning through procedural design choices. Municipalities with recent advisory or professional relations with me were excluded from the project. Recruitment was organized through randomized contact order within size-based strata. Assignment to leadership training and no-training took place after baseline measurement. A trainer not involved in advisory or coaching work with mayors and municipal CEOs was added to the trainer setup. Trainer allocation for the first module was determined by ballot. Implementation documentation records how leadership training was delivered. These procedures limit discretionary influence on recruitment, assignment, trainer allocation, and the interpretation of delivery.

As a result, positioning has a dual status in the study. It is a condition of field access and shapes how the design is organized, and the professional position made the elite field accessible. The design structured this access through criteria for retaining municipalities, randomized recruitment procedures, assignment after baseline measurement, ballot-based trainer allocation, and implementation documentation. The broader implications of this positioning for interpretation, attention effects, and scope conditions are discussed in the dissertation's final part.

These procedures reduce discretionary influence at specified stages of the design. They do not remove the possibility that my professional position influenced participation, engagement, or reporting. Those implications remain part of the interpretation of the study.

6.2 Comparative design logic

The study combines a comparative case-delimitation logic with stratified random assignment. Comparative-method research informs how the municipal field is delimited and structured, while random assignment within strata provides the design-based source of the training/no-training contrast. The before-and-after measurements provide the temporal basis for describing and comparing change within this randomized comparison.

Comparative analysis provides the methodological basis for examining change in this elite-level field. Lijphart (1971) places the comparative method between single-case interpretation and large-N statistical analysis and emphasizes

its relevance when political phenomena are examined across a limited number of settings. Azarian (2011) adds that comparison gains analytical value when similarities and differences are specified in relation to the research problem. Marsh and Stoker (2010) locate method choice within research design because method connects the research question, theoretical concepts, and empirical evidence. Andersen and Burau (2007) emphasize theoretically guided comparison. These arguments support the theoretically guided delimitation and structuring of the municipal cases. The subsequent variation in exposure to leadership training is introduced through random assignment within strata.

The design combines three sources of variation. The first is variation between municipalities. The second is variation between municipalities assigned to leadership training and municipalities assigned to no-training. The third is variation from before to after the training period. The empirical analysis compares change over time between the two groups (Andersen and Skaaning 2025).

Leadership training is the independent variable. It refers to the planned leadership training program specified in Chapter 5 and later documented as implemented in Chapter 7. Strategic readiness, developed in Chapter 3, is the dependent variable. Municipal size is incorporated as the main third variable in the design. Municipal size is treated as a theoretically relevant pre-assignment stratification variable. Dahl and Tufte (1973) and Denters et al. (2014) show that jurisdiction size structures the political and democratic context of local government, including political proximity and governmental capacity. Mintzberg's (1979) organizational-structure research provides the more general proposition that organizational size is associated with specialization, differentiation, and coordination demands. Stratification assigns a defined role to municipal size in interpreting the later training/no-training comparison within and across size groups.

6.3 Structuring the municipal comparison using Most Similar Systems Design

The municipal comparison requires an *ex ante* delimitation of the municipalities in which leadership training and change in the respondent-specific strategic readiness concepts can be examined under shared institutional conditions. Most Similar Systems Design (MSSD) provides the first design step. It delineates the municipalities retained for comparison prior to recruitment, assignment, and implementation of the training.

Przeworski and Teune (1970) formulate the MSSD logic as a way of strengthening comparison by selecting systems that share important background characteristics while the explanatory condition varies. Lijphart (1971) develops the same comparative point by emphasizing that the comparative method gains analytical strength when the number of settings is limited, and similarities are used to reduce the range of competing explanations. Anckar (2008) further specifies the value of MSSD by showing how similarity across background conditions can

strengthen the interpretation of differences in the outcome. Seawright and Gerring (2008) situate this within case-selection logic, arguing that case selection is part of the research design rather than a preliminary technical step. Gerring (2011) makes the same point more broadly by linking case selection to the theoretical structure of the causal claim.

MSSD provides an important design criterion for the municipal comparison. Leadership training is directed at dyadic strategizing, and strategic readiness is examined at the political-administrative apex. The municipalities retained for comparison are, therefore, delimited by criteria that locate executive strategizing in a comparable institutional form. Complexity and turbulence frame the strategic problem examined in the municipal field, while the MSSD criteria delimit the institutional setting in which that problem can be compared.

The municipalities retained for comparison are delimited through two institutional criteria and one access-related relation criterion. The first criterion concerns whether executive leadership is organized around a unified mayor-municipal CEO apex. The second criterion concerns whether the municipality carries the full municipal mandate under the Danish local government framework. The third criterion concerns the absence of recent advisory or professional engagement with the mayor-municipal CEO dyad. The first two criteria establish institutional comparability, whereas the third criterion addresses a pre-comparison relation that follows from the study's access-based character.

Together, these criteria give MSSD a specific function in the research design. MSSD delimits the municipalities to be retained for comparison before the subsequent design steps are introduced. The purpose is to retain municipalities that share the organizational, sectoral, and legal institutional conditions that shape the relation between leadership training and strategic readiness. In this way, MSSD provides the first basis for comparability in the design.

6.3.1 Criteria for retaining municipalities in the comparison

The criteria specify how the entire population of Danish municipalities is evaluated for participation. They are applied before municipalities enter the following design steps, thereby functioning as an *ex ante* delimitation of the comparison.

The starting point is the full population of 98 Danish municipalities. The first criterion concerns organizational structure. Municipalities are included when executive leadership is organized around a unified mayor-municipal CEO apex. Four municipalities are excluded because they operate under a magistrate system where executive political authority is distributed among several magistrates. In those municipalities, the political-administrative apex takes a different institutional form from the mayor-municipal CEO relation.

The second criterion concerns the legal and institutional framework. Municipalities are retained when they exercise the full municipal mandate under the Danish local government framework. Four municipalities are excluded because

structural arrangements following the 2007 municipal reform involve delegating or sharing core welfare responsibilities through binding cooperation with another municipality¹. This criterion preserves comparability across the municipal task portfolio and the strategic responsibility for the political-administrative apex.

The third criterion concerns recent professional relations with me. Municipalities are included when there has been no recent advisory or professional engagement with the mayor-municipal CEO dyad. Ten municipalities are excluded from this criterion. Prior recent professional engagement may shape familiarity with the planned leadership training, expectations toward me as trainer, willingness to participate, or later uptake of the training. The criterion addresses a pre-comparison relation that follows from the study's access-based character.

The three criteria reduce the municipal population from 98 to 80 municipalities. Table 6.1 summarizes the delimitation. The municipalities retained for comparison share the organizational and institutional conditions specified by the MSSD frame and satisfy the additional relation criterion concerning recent professional engagement.

Table 6.1: From Danish municipalities to the municipal population retained for comparison

Step	Design condition	Criterion for retaining municipalities	Municipalities excluded	Remaining municipalities
Starting point	Danish municipal sector	Danish municipalities		98
Criterion 1	Organizational structure	Unified mayor-municipal CEO apex	4	94
Criterion 2	Legislation and institutional framework	Full municipal mandate under the Danish local government framework	4	90
Criterion 3	Prior recent professional relation	Absence of recent advisory or professional engagement with the mayor-municipal CEO dyad	10	80
Municipal population included in the project	MSSD-based delimitation	Municipalities retained after applying the three criteria		80

¹ L 69 - 2004-05 *Law on binding municipal cooperation*. / The Danish Parliament.

6.4 Stratification by municipal size

Municipal size provides the basis for stratification in the design. The methodological argument follows from the comparative logic. In a design with a limited number of municipalities, a known pre-assignment variable can become unevenly distributed across the comparison. Andersen and Skaaning (2025) emphasize that theoretically relevant third variables matter because they may affect the interpretation of the relation between the independent and dependent variables. Kernan et al. (1999) formulate stratified randomization as a way of handling a known factor associated with the outcome or with responsiveness to an intervention before assignment. Bruhn and McKenzie (2009) show that blocking and stratification are particularly relevant in designs with few participating settings because balance on known characteristics cannot be left to chance alone. Hansen and Bowers (2008) place the same issue within the broader problem of covariate balance in comparative studies. The cut-points are a study-specific operational choice rather than thresholds derived from the stratification literature. They were chosen to secure recruitment across substantively different parts of the municipal-size distribution while preserving the possibility of equal training/no-training allocation within each recruited stratum. The approximately equal aggregate populations provide a coverage rule rather than an analytical weighting scheme; municipalities remain the units of assignment and comparison.

Municipal size is treated as a theoretically relevant pre-assignment stratification variable. Dahl and Tufte (1973) and Denters et al. (2014) show that jurisdiction size structures the political and democratic context of local government, including political proximity and governmental capacity. Mintzberg's (1979) organizational-structure research provides the more general proposition that organizational size is associated with specialization, differentiation, and coordination demands. These literatures do not establish that population size directly causes strategic readiness or responsiveness to leadership training. They support treating municipal size as a pre-assignment characteristic that structures the setting in which the strategic dyad works.

Smaller and larger municipalities place the mayor-municipal CEO dyad in different organizational and political-administrative contexts. These differences may shape the conditions under which leadership training is associated with change in strategic readiness. This places municipal scale into the design before recruitment and assignment. The cut-points are based on the population distribution in the municipalities retained through MSSD and divide these municipalities into three size bands with approximately the same aggregate number of inhabitants.

Stratification gives municipal size a precise design function. Size-related variation is retained inside the design and organized before municipalities enter recruitment and assignment. The inhabitant intersections points produce strata with different numbers of municipalities because the Danish municipal size

distribution is skewed. The goal was to create three strata with approximately equal aggregate populations. This gives each stratum a comparable population weight in the design even though the number of municipalities differs across strata.

Stratum A consists of municipalities with fewer than 50,801 inhabitants. Stratum B consists of municipalities with 50,801 to 83,800 inhabitants. Stratum C consists of municipalities with more than 83,800 inhabitants. Among the 80 municipalities retained after the MSSD step, 46 municipalities are placed in Stratum A, 24 municipalities are placed in Stratum B, and ten municipalities are placed in Stratum C. The recruitment targets are distributed across the same strata with six municipalities from Stratum A, four from Stratum B, and two from Stratum C.

Because assignment was conducted within strata, the empirical analysis retains the stratified structure in the interpretation of the pooled and within-stratum training/no-training contrasts. The within-stratum estimates are descriptive because each stratum contains very few participating municipalities.

Table 6.2 records how municipal size is incorporated into the design. Stratification retains municipalities across the size distribution and gives each stratum a defined place in recruitment and assignment. This supports the later training/no-training comparison by preventing the comparison from being concentrated in one part of the municipal size distribution. It also prepares the later analysis of change within strata, because the empirical analyses can examine training/no-training differences in change within the same size-based structure that organized the design.

Table 6.2: Stratification by municipal population

Stratum	Population size	Municipalities retained after MSSD	Recruitment target
A	Fewer than 50,801 inhabitants	46	6
B	50,801 to 83,800 inhabitants	24	4
C	More than 83,800 inhabitants	10	2
Total		80	12

6.5 Recruitment through randomized contact order

Recruitment concerns how municipalities entered the study as participating municipalities. Access to the political-administrative apex depends on municipal acceptance, and leadership training requires participation from both the mayor and

the municipal CEO. Recruitment therefore has design relevance before assignment to leadership training, and no-training is introduced.

The invitation sequence is central in an elite-level municipal field. Contact order based on the researcher's discretion could align recruitment with prior knowledge, expected willingness to participate, administrative accessibility, or practical convenience. Gerber and Green (2012) emphasize randomization as a way of replacing discretionary allocation with a transparent procedure. Public management research makes a related point by emphasizing clear procedures and transparent reporting of recruitment, assignment, delivery, and implementation in public-sector studies (Blom-Hansen, Morton, and Serritzlew 2015; James, Jilke, and Van Ryzin 2017). The general randomization literature motivates replacing discretionary ordering with a documented chance procedure. Randomized contact order is used here as a study-specific procedural device rather than as random sampling.

The recruitment procedure followed the strata established by municipal size. Within Stratum A, Stratum B, and Stratum C, municipalities retained through MSSD were ordered by ballot. The ballot was conducted by persons outside the project. The resulting lists established the contact order within each stratum. The first municipality on each list was invited first. When a municipality declined participation, the next municipality in the same stratum was invited. Recruitment continued until the planned number of municipalities in each stratum had agreed to participate.

Randomized contact order removes researcher discretion from the invitation sequence within each stratum, but municipal participation remains consent-based. The twelve participating municipalities therefore constitute a recruited sample from the 80-municipality eligibility frame rather than a probability sample of that frame.

Table 6.2 records the stratum-specific recruitment targets used in the procedure. The randomized element in this step is the contact order within each stratum. Municipal participation follows from acceptance of the invitation. The participating municipalities entered the study through sequential invitation from randomized contact lists within the size-based strata.

Randomized contact order reduces discretionary influence on which municipalities are invited first. It also preserves the stratified structure because a declined invitation leads to the next municipality in the same stratum. Recruitment thereby remains aligned with the stratified design. The participating municipalities are established before the assignment introduces the leadership training/no-training comparison.

6.6 Assignment to training and no-training within strata

The assignment introduces the training/no-training comparison within the stratified design. MSSD delimits the municipalities retained for comparison.

Stratification organizes municipal size before recruitment and assignment. Recruitment through randomized contact order brings twelve municipalities into the study. The assignment then introduces variation in the independent variable by placing participating municipalities in the leadership training group and the no-training group.

Random assignment within strata provides the design-based basis for the training/no-training contrast (Gerber and Green 2012). Baseline measurement does not create that identification. It provides a pre-intervention reference point, was completed before assignment status was introduced, and permits the study to describe and compare change over the intervention period (Shadish, Cook, and Campbell 2002). The combination therefore provides a stratified randomized comparison with before-and-after measurement. Blom-Hansen, Morton, and Serritzlew (2015) make a related argument by emphasizing the importance of clear experimental procedures when interventions are implemented in public sector settings. James, Jilke, and Van Ryzin (2017) further underline that public management experiments depend on transparent reporting of recruitment, assignment, and implementation because these steps shape how the resulting comparison is interpreted. In the present design, the assignment introduces the training/no-training comparison after baseline measurement, and the two-wave questionnaire structure makes municipality-level change the temporal basis for the comparison.

The assignment took place after the baseline measurement. This timing separates the first measurement from the assignment status. Baseline measurement provides the pre-training score for each respondent-specific measure. Final measurement provides the corresponding post-training score. The change from before to after the training period becomes the basis for comparing municipalities assigned to leadership training with municipalities assigned to no-training.

The assignment was conducted within strata. In Stratum A, six participating municipalities had accepted participation, and three were assigned to leadership training, while three were assigned to no-training. In Stratum B, four municipalities had accepted participation, and two were assigned to leadership training, while two were assigned to no-training. In Stratum C, two municipalities had accepted participation, and one was assigned to leadership training while the other was assigned to no-training. Municipal size is therefore organized at the point where assignment introduces the training/no-training comparison.

The ballot was conducted by persons not otherwise engaged in the project. This procedural choice gives the assignment step a documented form and reduces discretionary influence on which municipalities were assigned to leadership training. It also separates assignment from expectations about municipalities, baseline strategic readiness, recruitment sequence, and anticipated uptake of the planned program.

Table 6.3 records the assignment procedure. The training/no-training comparison is organized within each stratum. This is important in a 12 municipality

design because unrestricted assignment could place leadership training municipalities disproportionately in one part of the municipal size distribution.

The assignment introduces the comparison used in the empirical analysis. The leadership training group comprises municipalities in which the mayor-municipal CEO dyad received the planned leadership training program. The no-training group consists of municipalities where the dyad did not receive the program during the study period. The empirical analysis can therefore compare changes in the three respondent-specific measures between municipalities assigned within the same size-based design structure.

Table 6.3: Assignment to training and no-training within strata

Stratum	Participating municipalities	Assigned to training	Assigned to no-training
A	6	3	3
B	4	2	2
C	2	1	1
Total	12	6	6

6.7 Implementation documentation and delivery-related variation

Implementation consistency concerns the status of leadership training as implemented. Assignment places municipalities in training and no-training. Implementation consistency concerns how the training is delivered and documented across the participating strategic dyads. The design task is to preserve leadership training as a recognizable condition while allowing the interactional form required by dyad-based leadership training.

Implementation documentation concerns whether and how the assigned training condition was delivered across the participating municipalities. Carroll et al. (2007) and Dane and Schneider (1998) provide the fidelity and program-integrity vocabulary, while Hoffmann et al. (2014) provide a framework for reporting intervention content, provider, mode of delivery, setting, schedule, dose, tailoring, modifications, and fidelity. These frameworks guide the documentation of delivery in the present study; the dissertation does not construct a separate quantitative fidelity score.

Public management research on experiments and interventions similarly emphasizes transparent reporting of recruitment, assignment, delivery, and implementation (James et al. 2017). These contributions support a design in which

assignment to leadership training is accompanied by documentation of how leadership training was delivered.

The delivered leadership training is structured by the planned training architecture. The defining elements are the module sequence, touchdowns, diary work, feedback, strategic case-work, training domains, shared tools, trainer setup, and implementation documentation. These elements give leadership training a common structure across municipalities. Delivery-related variation is interpreted in relation to the planned architecture. Variation permitted by the scripted program, such as work with local examples and dyad-specific strategic issues, is treated as planned tailoring. Departures from prescribed components, sequence, duration, or activities are reported as deviations. This distinction prevents all variation from being treated as equivalent. The design records this as a delivery-related variation within leadership training. The comparison remains between leadership training and no-training, while the implementation documentation supports the interpretation of the assigned training by showing what was delivered in the municipalities assigned to leadership training. The empirical analysis estimates training/no-training differences in change based on assignment, while Chapter 7 documents the delivered content and delivery-related variation in the training.

Provider-related variation is partly structured and documented through the trainer setup. Two designated trainers delivered the intervention. Both trainers had formal and practical knowledge of strategic work and everyday municipal processes. The number of trainers was kept limited to preserve confidentiality, trust, and continuity in a training program in which the mayor and the municipal CEO worked on their own strategic relations and issues. The ballot reduced discretionary matching between trainer identity and municipal characteristics for Module 1. It did not randomize trainer exposure across the full program or permit estimation of trainer effects. Trainer identity is therefore treated as a documented delivery condition rather than as a separately identified causal factor.

Trainer allocation was treated as a delivery condition in the training. For the first module, trainer allocation across the training municipalities was determined by ballot. Assignment to training and no-training introduced variation to training or no-training. Trainer allocation structured one condition within the delivery of the training. The ballot reduced discretionary influence over whether trainer identity aligned with municipal characteristics, stratum position, baseline strategic readiness, recruitment sequence, or expectations about the dyad's uptake of the training.

The ballot procedure is especially relevant because I served as one of the trainers. The procedure separates trainer allocation for the first module from prior knowledge about particular municipalities and strengthens the procedural transparency of the implemented training. Leadership training remains the independent variable. Trainer identity is treated as a delivery condition for the training.

6.8 Design implications for the empirical analysis

The empirical analysis follows from the research design. The design distinguishes among the conceptual, intervention, response, and comparison functions of the relevant units. The strategic dyad is the focal relational unit in the conceptual argument and the immediate unit of training in municipalities assigned to leadership training. Individual mayors, municipal CEOs, directors, and city councilors are the units of questionnaire response. The municipality is the unit of assignment, aggregation, and comparison in the empirical analysis. The municipality is the unit of assignment, aggregation, and comparison. This distinction is necessary because the intervention is directed at the mayor-municipal CEO dyad, while the estimated training/no-training difference in change is calculated between municipalities. The measurement construction, therefore, aggregates questionnaire responses by respondent group, municipality identifier, and measurement point before estimating training/no-training differences in change.

The two-wave questionnaire structure makes change over time the basis for comparison. The baseline measurement provides the pre-training point, and the final measurement provides the post-training point. Change is calculated as the difference between the two measurement points. The empirical analysis then examines whether municipalities assigned to leadership training show more positive change than municipalities assigned to no-training.

The same analytical logic applies to the three respondent-specific measures of the one systematized concept of strategic readiness. Strategic readiness reported by the strategic dyad concerns the dyad's combined reports of its strategizing. Strategic readiness perceived by directors concerns administrative leaders. Strategic readiness perceived by city councilors concerns politicians in the elected municipal council. The empirical chapters later construct one respondent-specific measure for each concept and estimate training/no-training differences in change separately for each of them.

The overall indices provide the first level of empirical comparison. They measure strategic readiness at each wave from the three respondent positions. Municipality-level differences between the before and after scores are then used to calculate change. The dimension scales provide the second level of analysis by showing how the overall pattern is distributed across systematic, coordinated, and collaborative strategizing. This distinction keeps the relation between the systematized concept of strategic readiness, respondent-specific measures, dimensions, and empirical comparison.

Municipal size remains part of the empirical analysis because the strata were built into the design before recruitment and assignment. The strata make it possible to examine whether training/no-training differences in change are repeated across smaller, medium-sized, and larger municipalities or concentrated in particular parts of the size-based design structure. The stratum analysis has a

descriptive design-based status. It locates the estimates within the municipal size structure used in the design.

Implementation documentation also shapes the interpretation of the empirical analysis. The assignment establishes the comparison between municipalities assigned to leadership training and municipalities assigned to no-training. Implementation documentation records how leadership training was delivered in the training municipalities. The empirical analysis therefore estimates training/no-training differences in change, while the interpretation of leadership training is informed by the documentation of delivered leadership training.

The design defines the scope of the empirical comparison. The estimates concern changes among participating municipalities involved after applying the MSSD criteria, organized through municipal size strata, recruited through randomized contact order, and assigned to leadership training or no-training after baseline measurement. Municipal consent, local developments during the study period, respondent composition across measurement points, and variation in uptake of leadership training remain part of the interpretation.

The empirical analysis rests on a defined design basis. It estimates training/no-training differences in change at the municipality level, separately for the three respondent-specific measures, and with municipal size retained as a design-based structure for later descriptive analysis within strata.

6.9 Summary of the research design

The research design organizes the movement from field access to structured comparison in an elite-level municipal field. My professional position at Komponent provided access to mayors and municipal CEOs and enabled the recruitment of strategic dyads into a common training and measurement sequence. The design then structured this access through connected design choices that enabled comparison. The result is a comparative leadership training study in which leadership training is the independent variable, strategic readiness is the dependent variable, and municipal size is incorporated as the main third variable through stratification.

MSSD-informed criteria delimit the municipalities retained for comparison from the full population of Danish municipalities. The municipalities involved meet the institutional conditions required by the study's theoretical objective. The mayor-municipal CEO relation has a comparable executive form, the municipal mandate places comparable strategic responsibility at the political-administrative apex, and recent professional engagement with the principal investigator is handled before recruitment and assignment enter the design. This gives the comparison a delimited set of municipalities before assignment to leadership training, and no-training is introduced.

Stratification gives municipal size a defined design function. Population size is used to organize size-related variation before recruitment and assignment.

Municipal size is, thereby, incorporated into the comparison as a pre-assignment variable that supports the later interpretation of training/no-training differences in change within and across strata.

Recruitment through a randomized contact order structures how municipalities enter the study as participants. Municipalities are invited sequentially from randomized contact lists within each stratum until the planned number of municipalities has accepted. This procedure reduces discretionary influence on recruitment order and keeps recruitment aligned with the stratified design. The participating municipalities, therefore, enter the study through a structured recruitment procedure within the municipalities retained through MSSD and organized by strata.

The assignment introduces the training/no-training comparison. After baseline measurement, participating municipalities are assigned to leadership training and no-training within strata. This places the training/no-training distinction inside the comparative structure already established through MSSD, stratification, and recruitment. Baseline measurement provides the pre-training point, and the two-wave structure makes change over time the basis for comparison.

Implementation documentation records leadership training as delivered across the training municipalities. It identifies the common elements of the delivered leadership training and records delivery-related variation arising from trainer style, dyad interaction, local examples, participant engagement, timing, and dyad uptake between modules. This supports the interpretation of leadership training as the delivered independent variable when the empirical analysis estimates training/no-training differences in change.

The empirical analysis follows from this design structure. The municipality is the main unit of analysis because assignment to leadership training and no-training takes place at the municipal level. Change is the basis for comparison because the same respondent-specific measures are applied before and after the training period. The empirical comparison estimates training/no-training differences in change. Municipal size remains analytically relevant because the strata were built into the design before recruitment and assignment.

The dependent variable is one systematized concept examined through three respondent-specific measures. Strategic readiness reported by the strategic dyad concerns the dyad's combined reports of its strategizing. Strategic readiness perceived by directors concerns responses from an administrative position. Strategic readiness perceived by city councilors concerns responses from politicians in the elected municipal council. The empirical chapters later construct respondent-specific measures for these respondent positions and estimate training/no-training differences in change separately for each of them.

The research design establishes the basis for the empirical analysis. It delimits the municipalities retained for comparison, organizes municipal sizes, structures recruitment, introduces assignment to leadership training and no-training, documents delivered leadership training, and aligns the comparison with the

three respondent-specific measures of strategic readiness. Within this structure, the study examines whether municipalities assigned to leadership training show more positive change in strategic readiness than municipalities assigned to no-training.

7. Leadership training as implemented

Leadership training was implemented as a structured process for the mayor and the municipal CEO in the six municipalities assigned to the training. The strategic dyad was the immediate unit of training. The two executive actors participated together; worked on strategic issues together, and progressed through modules, intermediate activities, diary work, touchdowns, feedback, and municipal practice. The delivered program consisted of accumulated exposure to a dyad-based training sequence.

The task here is to establish what was delivered, how the sequence of delivery accumulated over time, how implementation was documented, and how deviations from the planned delivery affect the interpretation of the training. The detailed operational implementation record is placed in Appendix A7.

7.1 The training architecture as delivered

The delivered training was organized as a cumulative sequence. The sequence connected three modules, two touchdowns, diary work, strategic cases, feedback, and reflection into one training process. The training municipalities therefore received a sequence of module-based training, between-module work, and connection to everyday municipal practice.

The delivered training followed the horizon logic specified in the preregistered training design during a three-module training setting. Module 1 was delivered locally to each strategic dyad, establishing the dyad as the immediate unit of training. Module 2 brought the dyads assigned to training into a joint training setting and added comparison, mirroring, and peer reflection. Module 3 returned the training logic to each dyad's own strategic issue and placed greater responsibility for articulation, reflection, and feedback with the dyad.

Table 7.1 shows how the training accumulated over time. Module 1 established the shared frame. The first intermedia period connected this frame to ongoing everyday municipal practice. Module 2 added comparison and peer reflection across dyads. The second intermedia period redirected the work toward each dyad's own strategic issue. Module 3 placed the training logic within the dyad's own case.

Table 7.1: Delivered training sequence

Training step	Training setting	Primary function in the training	Contribution to the training
Module 1	Local session with each mayor-CEO dyad	Establishing the dyad as the learning unit and introducing the program's basic concepts and tools	Created a shared language for strategic readiness and made the dyad's own interaction available for reflection and feedback
Intermedia period 1	Diary work and online touchdown	Supporting the first movement from training to municipal practice	Encouraged the dyad to use, observe, and reflect on the tools in ongoing strategic work
Module 2	Joint training setting with the training dyads	Working with increased strategic complexity through a shared case	Added comparison, peer reflection, and feedback across dyads while maintaining the dyad as the primary learning unit
Intermedia period 2	Diary work and online touchdown	Sustaining use of the tools and preparing the dyads' own cases	Strengthened continuity between the shared case-work and the dyad's own strategic practice
Module 3	Joint training setting organized around each dyad's own case	Moving toward more autonomous use of training concepts and tools	Required the dyads to apply the training logic to their own strategic case and articulate their strategizing for reflection and feedback

7.2 Intermedia between training modules and municipal practice

Intermedia refers to the structured activities placed between formal training modules. These activities formed part of the implemented training because they connected module-based training situations to the dyads' ongoing municipal practice. The intermedia consisted of diary work, touchdowns, reminders, and preparation tasks for the following module.

The modules created focused on six-hour training sessions in which the dyads worked on strategic issues using cases, tools, feedback, and reflection. The intermedia extended this work into the periods when the dyads returned to their ordinary work. During these periods, the dyads were asked to use selected tools, record observations, and bring selected reflections into the next training session.

The diary had pedagogical and procedural functions. It supported attention to practice between modules and provided material for reflection in subsequent training activities. The touchdowns created scheduled moments where the dyads returned to the training tools, discussed experiences from their own practice, and clarified questions before the next module. The preparation tasks before Module

3 shifted the training from common case material to municipality-specific strategic issues.

Table 7.2 presents the intermediate components and their function in the implemented training. The operational details of these activities are documented in Appendix A7.

Table 7.2: Intermedia components in the implemented training

Intermedia component	Function in the training	Contribution to the implemented training
Diary work	Supported observation and reflection between modules	Extended the training logic into ongoing everyday practice
Touchdowns	Created structured conversations about the use of tools and emerging reflections	Maintained continuity between modules and supported cumulative learning
Reminders	Reintroduced attention to the diary and the training tools between formal training activities by email to all the dyads.	Helped sustain engagement with the training during ordinary work periods
Preparation tasks	Connected the next module to the dyad's own strategic issues	Prepared the movement from shared training cases to municipality-specific case-work

7.3 Implementation documentation and material status

The implemented training was documented through several layers of material. Appendix A7 provides the printed implementation log, including the training material register, the implementation sequence, the timing and format of modules and intermedia, the core activities in each part of the program, and deviations from planned delivery. The public online appendix contains publication-ready, non-confidential versions of the core training materials supporting this record, including module manuscripts, slides, exercises, dialogue guides, and program material. Municipality-specific scheduling, attendance, and other recognition-sensitive delivery information are removed from the public versions. Consent and confidentiality templates are registered under Appendix A8.

The documentation strategy reflects the character of the field. The training involved a small number of identifiable political and administrative leaders working with potentially sensitive aspects of their strategic cooperation. Implementation evidence is therefore reported in recognition-protected and aggregated form. Confidentiality-sensitive materials, including recordings and participant-specific diary material, remain in the protected project archive.

7.4 Deviations from planned delivery

The training log in Appendix A7 documents two deviations from the preregistered training delivery. Both deviations concerned the practical organization of the training setting. They are relevant because the training was designed as a structured sequence of dyadic work, peer reflection, trainer feedback, and intermediate activities. Changes in the physical or collective setting may shape how these components are delivered, even when the central training content is retained.

Appendix A7 documents two deviations from planned delivery. Both concern the practical organization of the training setting rather than the substantive content of the training. The first concern the physical setup of Module 2, which was delivered in a four-room setup rather than one shared room. The second concerned Module 3, which was delivered across two sessions rather than one joint session for all six training dyads. Table 7.3 summarizes the deviations and their implications for interpretation.

Table 7.3: Deviations from planned delivery

Training component	Planned delivery	Delivered training	Implication for interpretation
Module 2 physical setup	Joint module organized in one shared room	Module 2 was delivered in a four-room setup consisting of one plenary room and three group rooms	The core training sequence was preserved, while the conditions for peer exposure, trainer observation, and documentation differed from the planned setup
Module 3 group configuration	One joint module for all six dyads assigned to training	Module 3 was delivered across two sessions, one with two dyads and one with four dyads	The core content and case-based work were preserved, while the collective learning environment differed across the two sessions

Taken together, the deviations affected the practical and collective conditions of delivery. The dyad remained the unit of training; the module sequence was completed; the strategic casework was retained; and feedback, reflection, diary work, and intermedia continued to structure the training. The deviations are, therefore, interpreted as changes in implementation format. Their relevance lies in how they shaped peer comparison, collective reflection, trainer observation, and documentation across the training sequence.

7.5 Summary of leadership training as implemented

The implemented training consisted of a dyad-based leadership training sequence delivered through three modules, intermediate activities, strategic cases, feedback, reflection, diary work, touchdowns, and documented training materials. The strategic dyad was the unit of delivery. The sequence moved from local

dyadic work, through to comparison and peer reflection across training dyads and then to work with each dyad's own strategic issues.

The delivered training accumulated over time. Module 1 established the shared training frame. The intermedia connected this frame to ongoing municipal practice. Module 2 added comparison and peer reflection across dyads. The second intermedia redirected the training logic toward each dyad's own strategic issues. Module 3 placed the training logic within the dyad's own casework.

The implementation documentation defines the training's delivered content. The central components of the planned training were completed as planned. The mayor-municipal CEO dyad remained the unit of delivery, the training retained its practice-near and case-based form, and the intermedia supported continuity between modules and municipal strategizing. Two deviations affected the practical and collective conditions of delivery: Module 2 was implemented in a four-room setup, and Module 3 was delivered across two sessions.

8. Data generation and empirical material

Chapter 8 establishes the empirical material used for measurement construction. The questionnaire material provides the respondent-based answers that are later used to construct the measures of strategic readiness.

8.1 The questionnaire versions and response format

The questionnaire material is the respondent-based data in the empirical analysis. It contains answers from the three respondent groups before and after the sequence. The wording is adapted to each respondent position while maintaining the three-dimensional structure of strategic readiness across versions.

The same version of the questionnaire was administered before and after the training sequence within each respondent group. Item wording, response format, and item-to-dimension assignment were similar across the two measurement points to ensure that the answers before and after the training within each respondent group were comparable.

The items are formulated as statements and answered on a 5-point Likert scale. Higher values indicate stronger agreement with the strategizing activity described in the statement. Table 8.1 introduces the three questionnaire versions and their relation to the respondent-specific measure. It shows how the questionnaire material is organized before measurement construction.

Table 8.1: Questionnaire versions and respondent positions

Questionnaire version	Respondents	Respondent position	Respondent-specific measure
Dyad version	Mayor and municipal CEO	Internal in the strategic dyad	Strategic readiness reported by the strategic dyad
Director version	Directors	Administrative respondent position	Strategic readiness perceived by directors
City councilor version	City councilors	Elected political respondent position	Strategic readiness perceived by city councilors

Note: The table presents the questionnaire versions used before and after the training sequence. Chapter 10 constructs the respondent-specific measures corresponding to these concepts.

8.2 Data preparation, confidentiality, and research ethics

The study involves a small number of municipalities and potentially recognizable elite participants. Data preparation and reporting therefore follow two requirements. The first is to retain the information needed for measurement

construction and comparison. The second is to protect respondents, dyads, and municipalities from identification. The recognition risk has consequences for the handling and reporting of the empirical material. In Chapter 8, this issue is treated as a data and reporting condition. Questionnaire data are prepared and reported at aggregated levels to preserve the possibility of respondent-specific and design-based analysis while respecting the confidentiality commitments required in a small elite field.

Questionnaire respondents received information about the project's purpose, voluntary participation, the use of their responses for research purposes, and the handling of personal data. The participant information described the legal basis for processing questionnaire responses. Aarhus University processed the responses for scientific research purposes under GDPR Article 6(1)(e) and the Danish Data Protection Act §10(1), with information provided in accordance with GDPR Article 14.

Questionnaire responses were collected through software covered by Aarhus University's GDPR agreement. The two waves of responses were exported separately for each respondent group and stored in a protected project folder. Access to raw questionnaire data and supporting material is restricted to the research project.

Before analysis, the questionnaire data were pseudonymized and assigned unique respondents, municipality identifiers, role in the dyad, and stratum identifiers. The prepared data include the information needed for scale and index construction and for the later training/no-training comparison. Scale refers to one of the three dimensions of strategic readiness: systematic strategizing, coordinated strategizing, or collaborative strategizing. Index refers to the combined respondent-specific measure of strategic readiness formed from the three dimension scales. This information includes respondent group, measurement point, municipality identifier, training status, stratum, and dyad role where relevant. The municipality identifier is later used to aggregate answers within the respondent group and measurement point.

The study was approved by the Institutional Review Board at Aarhus University, Research Ethics Committee at Aarhus BSS, approval number BSS-2024-031-S1. The approval covered the study protocol, recruitment material, participant information, consent declarations, questionnaires, and related project documentation.

Appendix A8 provides an overview of the ethics, consent, and confidentiality documentation used in the study. The public online appendix contains the BSS approval letter, a publication-ready copy of the research ethics protocol, the status-documented recruitment and participant-information materials, and blank participation and confidentiality templates. Internal correspondence, signed forms, and participant-specific materials are not publicly available.

8.3 Summary of the empirical material

Chapter 8 establishes the empirical material used in the dissertation. The questionnaire material provides the respondent-based answers used to construct the measures of strategic readiness. Confidentiality-sensitive material is reported under restrictions that follow from the elite character of the field.

The chapter also clarifies the conditions under which the material was generated. Data preparation preserves the identifiers needed for measurement construction and training/no-training comparison. Research ethics and confidentiality requirements shape how respondents' answers are reported.

9. Questionnaire material and response structure

The questionnaire material has two functions at this stage of the dissertation. It establishes the before and after response material For each respondent-specific measure, and it specifies the statement-based items through which systematic, coordinated, and collaborative strategizing is represented in the questionnaire material.

The chapter presents the response material, the statement format, the item structure across respondent positions, and the data elements needed for measurement construction.

9.1 Measurement waves and response material

The relevant difference concerns the respondent groups across the two measurement waves. The dyad questionnaire was distributed to the exact same persons before and after the training because each municipality has one unique dyad. The director and city councilor groups are more variable because the number and composition of eligible respondents changed between waves.

Table 9.1 reports response rates for each respondent group at the level of the study as a whole. The number of respondents behind each municipality-level value varies across municipalities and across waves. For the director-perceived measure, between zero and four directors responded per municipality and wave. For the city councilor-perceived measure, between zero and fifteen city councilors responded per municipality at the before measurement and between one and ten at the after measurement. Appendix A9 reports the distribution by municipality.

Table 9.1: Response rate for each respondent group

Respondent group	Invited (before)	Responded (before)	Response rate (before)	Invited (after)	Responded (after)	Response rate (after)
Dyad	24	23	95.8	24	24	100.0
Directors	32	21	65.6	33	24	72.7
City Councilors	284	95	33.5	288	62	21.5

9.2 Item pools and dimensional structure

The item pools are organized by respondent-specific measure and dimension. Here, an item pool refers to the set of questionnaire statements initially assigned to one respondent-specific measure and one dimension of strategic readiness before measurement diagnostics and final scale construction. This produces nine dimension-specific item pools. This structure shows what each dimension is designed to capture and how the same theoretical dimension takes different empirical forms across respondent groups. The tables present the starting item content.

The nine item pools provide the material for the diagnostics and later scale construction. Each pool is theory-specified before measurement diagnostics are conducted. Each statement is identified by a question identifier, QID. The QID enables tracing the statement across the questionnaire documentation, measurement diagnostics, and final scale construction. The tables in the following subsections present the English wording first followed by the Danish wording in parentheses. This keeps the analysis readable in English while preserving the original formulation. Each subsection introduces the items related to each strategizing dimension – systematic, coordinated, and collaborative – for each respondent group.

9.2.1 Items for strategic readiness reported by the dyad

The dyad-reported item pool consists of questions asking the mayors and municipal CEOs about their strategic work. The items cover the dyad's internal praxis and the practices through which the dyad extends its strategic work toward directors, the city council, the organization, and external actors.

The items related to the systematic strategizing dimension in Table 9.2 are designed to capture structure over time. The first group concerns the dyad's internal organization of strategic work, asking about plans, goals, planned meetings, adjustment of plans, and evaluation of strategic collaboration (Q11, Q13, Q14, Q16, and Q17). These items are intended to capture whether strategy becomes recurring work that the dyad organizes and returns to. Three items broaden this internal structure by asking about external communication, follow-up on stakeholder meetings, and structured observations of the organization (Q12, Q22, and Q27).

A second group concerns systematic strategizing with directors asking whether the dyad sets goals for director involvement, follows up on that involvement, includes directors in planning, evaluates strategic work with directors, and observes the organization with directors (Q39, Q40, Q46, Q49, Q54, and Q57).

A third group concerns systematic strategizing with the city council. They ask about follow-up on city council involvement, regular strategic meetings with the city council, evaluation, planning, goal sharing, and review of previous strategic processes. These items connect the systematic dimension to the political-

administrative setting. They are intended to capture whether the dyad turns strategic interaction with the city council into a structured practice (Q62, Q63, Q65, Q68, Q69, and Q74).

Finally, two items (Q83 and Q84) ask about a culture that rewards new ideas and about inviting former employees to draw on their experience. These items relate to systematic strategizing by extending attention to the organized use of ideas and the structured use of experience.

Table 9.2: Dyad-reported systematic strategizing items

QID	Item wording
Q11	In our work on strategic tasks, we work according to a plan. <i>(I vores samarbejde om de strategiske opgaver arbejder vi efter en plan.)</i>
Q12	We communicate about our strategic work externally. <i>(Vi kommunikerer om vores strategiske arbejde til omverdenen.)</i>
Q13	We set goals for our strategic work. <i>(Vi sætter mål for vores strategiske arbejde.)</i>
Q14	Our planned meetings concern strategic themes. <i>(Vores planlagte møder handler om strategiske temaer.)</i>
Q16	We spend time adjusting the plans we have made. <i>(Vi bruger tid på at justere de planer, vi har lagt.)</i>
Q17	We spend time evaluating our strategic collaboration. <i>(Vi bruger tid på at evaluere vores strategiske samarbejde.)</i>
Q22	We follow up systematically on our meetings with stakeholders. <i>(Vi samler struktureret op på vores møder med interessenter.)</i>
Q27	We are structured in our observations of the organization. <i>(Vi er strukturerede i vores observationer af organisationen.)</i>
Q39	We set clear goals for our involvement of the directors. <i>(Vi sætter tydelige mål for vores inddragelse af direktionen.)</i>
Q40	We are systematic in our follow-up from involving the directors. <i>(Vi er systematiske i vores opsamling fra inddragelsen af direktionen.)</i>
Q46	We involve the directors in planning strategic tasks. <i>(Vi inddrager direktionen i planlægningen af strategiske opgaver.)</i>
Q49	Together with the directors, we evaluate the strategic work. <i>(Sammen med direktionen evaluerer vi det strategiske arbejde.)</i>
Q54	We involve the directors in the evaluation of previous strategic processes. <i>(Vi inddrager direktionen i evalueringen af tidligere strategiske processer.)</i>

Q57	Together with the directors, we are structured in our observations of the organization. (<i>Sammen med direktionen er vi strukturerede i vores observationer af organisationen.</i>)
Q62	We are systematic in our follow-up from involving the city council. (<i>Vi er systematiske i vores opsamlinger fra inddragelsen af byrådet.</i>)
Q63	We have regular meetings with the city council about strategic tasks outside regular city council meetings. (<i>Vi har regelmæssige møder med byrådet om strategiske opgaver uden om byrådsmøderne.</i>)
Q65	Together with the city council, we conduct systematic evaluations of the strategic work. (<i>Vi har sammen systematiske evalueringer af det strategiske arbejde med byrådet.</i>)
Q68	As a rule, we involve the city council in planning strategic tasks. (<i>Vi inddrager som udgangspunkt byrådet i planlægningen af strategiske opgaver.</i>)
Q69	We systematically share our goals for the organization with the city council. (<i>Vi deler systematisk vores mål for organisationen med byrådet.</i>)
Q74	We involve the city council in the evaluation of previous strategic processes. (<i>Vi inddrager byrådet i evalueringen af tidligere strategiske processer.</i>)
Q83	We have a culture in which we reward new ideas. (<i>Vi har en kultur, hvor vi belønner nye ideer.</i>)
Q84	We regularly invite former employees to talk with us in order to draw on their experience from their time in the municipality. (<i>Vi inviterer jævnligt tidligere medarbejdere til samtale for at bruge deres erfaringer fra deres tid i kommunen.</i>)

The coordinated items in Table 9.3 are designed to capture alignment of roles, expectations, attention, and action. The first group concerns coordination inside the dyad. They ask about shared understanding, feedback, expectation alignment, agreement on who does what, and division of responsibility in external settings. These items intend to capture the political-administrative division of strategic work between the mayor and the municipal CEO (Q7, Q9, Q10, Q15, and Q21).

A second group concerns how the dyad coordinates its attention to the organization and its surroundings. Items ask about stakeholder dialogues, understanding of the organization, language about the organization, municipal conditions, feedback in the organization, and the use of experience from new and former employees. These items extend coordination beyond task allocation. They intend to capture how the dyad aligns interpretation, attention, and organizational reading (Q18, Q24, Q28, Q31, Q32, Q33, Q34, and Q35).

A third group concerns coordination with directors and is about director involvement, division of responsibility, expectations, feedback, goals, municipal conditions, organizational language, and observations of the organization. These

items intend to capture whether the dyad makes its strategic work coordinated and legible to the administrative leadership layer (Q38, Q41, Q42, Q43, Q44, Q48, Q52, Q55, and Q58).

The final group concerns political coordination. Here, items ask about what the city council is involved in, expectations of the city council, feedback, involvement before strategic decisions, feedback to the city council, and discussion of municipal conditions. These items are intended to capture how the dyad aligns executive strategizing with the elected political arena (Q60, Q61, Q66, Q67, Q73, and Q75).

Table 9.3: Dyad-reported coordinated strategizing items

QID	Item wording
Q7	Through our dialogues, we often reach a shared understanding of the strategic task. (Gennem vores dialoger når vi ofte frem til en fælles forståelse af den strategiske opgave.)
Q9	We give feedback to each other. (Vi giver feedback til hinanden.)
Q10	We spend time aligning our expectations of each other in the strategic collaboration. (Vi bruger tid på at afstemme forventninger til hinanden i det strategiske samarbejde.)
Q15	In our strategic collaboration, we spend time agreeing on who does what. (I vores strategiske samarbejde bruger vi tid på at aftale, hvem der gør hvad.)
Q18	We have dialogues about which stakeholders we should meet with. (Vi har dialoger om, hvilke interessenter vi skal mødes med.)
Q21	We have a precise division of responsibility regarding which of us participates in which external settings. (Vi har en præcis fordeling af, hvem af os der deltager i hvilke eksterne sammenhænge.)
Q24	We reflect on our understanding of the organization. (Vi reflekterer over vores forståelse af organisationen.)
Q28	In our dialogues, we regularly reflect on how we talk about the organization. (I vores dialoger reflekterer vi regelmæssigt over, hvordan vi taler om organisationen.)
Q31	We discuss how conditions can be used to the benefit of the municipality. (Vi diskuterer, hvordan vi kan udnytte vilkår til fordel for kommunen.)
Q32	We actively give feedback throughout the organization. (Vi giver aktivt feedback rundt i organisationen.)
Q33	We actively seek feedback in the organization on our strategic work. (Vi opsøger aktivt feedback i organisationen på vores strategiske arbejde.)
Q34	We invite former employees to talk with us in order to draw on their experience from their time in the municipality. (Vi inviterer tidligere medarbejdere til samtale for at bruge deres erfaringer fra deres tid i kommunen.)

Q35	We invite new employees to talk with us in order to actively draw on their experience from previous employment. <i>(Vi inviterer nye medarbejdere til samtale for aktivt at bruge deres erfaringer fra tidligere ansættelser.)</i>
Q38	We have dialogues about our involvement of the directors. <i>(Vi har dialoger om vores inddragelse af direktionen.)</i>
Q41	Our directors have a clear picture of the division of responsibility in our dyad. <i>(Vores direktion har et klart billede af arbejdsdelingen i vores makkerpar.)</i>
Q42	Our directors know our expectations of each other in the dyad. <i>(Vores direktion kender vores forventninger til hinanden i vores makkerpar.)</i>
Q43	We give feedback to the directors on their strategic contribution. <i>(Vi giver feedback til direktionen på deres strategiske bidrag.)</i>
Q44	We seek feedback from the directors on our own strategic collaboration. <i>(Vi opsøger feedback fra direktionen på vores eget strategiske samarbejde.)</i>
Q48	We share our goals for the organization with the directors. <i>(Vi deler vores mål for organisationen med direktionen.)</i>
Q52	Together with the directors, we discuss how conditions can be used to the benefit of the municipality. <i>(Vi diskuterer med direktionen, hvordan vi kan udnytte vilkår til fordel for kommunen.)</i>
Q55	Together with the directors, we reflect on how we talk about the organization. <i>(Sammen med direktionen reflekterer vi over, hvordan vi taler om organisationen.)</i>
Q58	We share our own observations of the organization with our directors. <i>(Vi deler vores egne observationer af organisationen med vores direktion.)</i>
Q60	We have regular dialogues about what we involve the city council in. <i>(Vi har regelmæssige dialoger om, hvad vi inddrager byrådet i.)</i>
Q61	As a rule, we have clear expectations of the city council's contribution to the strategic work. <i>(Vi har som udgangspunkt klare forventninger til byrådets bidrag til det strategiske arbejde.)</i>
Q66	We regularly seek feedback from the city council on our own work. <i>(Vi opsøger regelmæssig feedback fra byrådet på vores eget arbejde.)</i>
Q67	As a rule, we involve the city council before we make strategic decisions. <i>(Som udgangspunkt inddrager vi byrådet før vi træffer strategiske beslutninger.)</i>
Q73	We regularly give feedback to the city council on its strategic contribution. <i>(Vi giver regelmæssig feedback til byrådet på deres strategiske bidrag.)</i>
Q75	We often discuss with the city council how conditions can be used to the benefit of the municipality. <i>(Vi diskuterer ofte med byrådet, hvordan vi kan udnytte vilkår til fordel for kommunen.)</i>

The collaborative items in Table 9-4 are designed to capture joint development of meaning and possibilities. The first group concerns the relational basis inside

the dyad. The first three items ask about trust, constructive disagreement, and active use of differences. These items intend to capture whether the political and administrative differences in the dyad serve as resources in strategic work (Q5, Q6, and Q8).

The next group concerns exploration and the development of possibilities. The questions ask whether the dyad uses other people's ideas, draws inspiration from external relations, challenges its understanding of the organization, explores potential, discusses opportunities, and works with visions. The items focus on collaborative strategizing as the joint development of interpretations, strategic possibilities, and possible direction. They ask whether the dyad develops possibilities rather than only managing existing strategic tasks (Q19, Q20, Q25, Q26, Q29, and Q30).

A third group concerns collaboration with directors, asking whether the dyad uses directors as a source of inspiration; seeks inspiration with them, discusses opportunities, visions, new understandings, potentials; and ideas from the organization. These items are intended to capture whether directors become part of the dyad's development of strategic possibilities (Q45, Q47, Q50, Q51, Q53, Q56, and Q59).

A fourth group concerns collaboration with the city council. The items ask about inspiration from the city council, discussions of organizational understanding, opportunities, potential, and visions. These items are intended to capture the political reach of collaborative strategizing (Q64, Q70, Q71, Q72, Q76, and Q77).

A final group asks whether employees can bring new ideas to the mayor and municipal CEO, whether the dyad promotes new ideas, and whether employees can speak up with ideas. These items relate to collaborative strategizing by focusing on the organizational exploration of ideas (Q80, Q81, and Q82).

Table 9.4: Dyad-reported collaborative strategizing items

QID	Item wording
Q5	Our strategic collaboration is fundamentally characterized by trust. (Vores strategiske samarbejde er grundlæggende præget af tillid.)
Q6	We have constructive dialogues about the strategic issues on which we disagree. (Vi har konstruktive dialoger om det strategiske, vi er uenige om.)
Q8	We actively use our differences in our collaboration. (Vi bruger vores forskellighed aktivt i vores samarbejde.)
Q19	In our strategic work, we use other people's ideas. (I vores strategiske arbejde bruger vi andres idéer.)
Q20	We actively use inspiration from meetings with external relations. (Vi bruger aktivt inspiration fra møder med eksterne relationer.)

Q25	We have discussions in which we challenge our own understanding of the organization. <i>(Vi har drøftelser, hvor vi udfordrer vores egen forståelse af organisationen.)</i>
Q26	We explore new potential in the organization. <i>(Vi undersøger nye potentialer i organisationen.)</i>
Q29	We have dialogues about new opportunities for the municipality. <i>(Vi har dialoger om nye muligheder for kommunen.)</i>
Q30	We have discussions about new visions for the municipality. <i>(Vi har drøftelser om nye visioner for kommunen.)</i>
Q45	Our directors are an important source of inspiration for developing new solutions. <i>(Vores direktion er en vigtig inspirationskilde til udvikling af nye løsninger.)</i>
Q47	Together with the directors, we seek inspiration from outside. <i>(Sammen med direktionen indhenter vi inspiration udefra.)</i>
Q50	We have dialogues with the directors about new opportunities for the municipality. <i>(Vi har dialoger med direktionen om nye muligheder for kommunen.)</i>
Q51	We discuss new visions for the municipality with our directors. <i>(Vi drøfter nye visioner for kommunen med vores direktion.)</i>
Q53	We have discussions with the directors about new understandings of the organization. <i>(Vi har drøftelser med direktionen om nye forståelser af organisationen.)</i>
Q56	We explore new potential in the organization with the directors. <i>(Vi undersøger nye potentialer i organisationen med direktionen.)</i>
Q59	Together with the directors, we discuss ideas that they receive from the organization. <i>(Sammen med direktionen drøfter vi ideer, de får fra organisationen.)</i>
Q64	Together with the city council, we often seek inspiration from outside. <i>(Sammen med byrådet indhenter vi ofte inspiration udefra.)</i>
Q70	We have regular discussions with the city council about our understanding of the organization. <i>(Vi har regelmæssige drøftelser med byrådet om vores forståelse af organisationen.)</i>
Q71	We often have dialogues with the city council about new opportunities for the municipality. <i>(Vi har ofte dialoger med byrådet om nye muligheder for kommunen.)</i>
Q72	Our city council is often an important source of inspiration for developing new solutions. <i>(Vores byråd er ofte en vigtig inspirationskilde til udvikling af nye løsninger.)</i>
Q76	We often explore new potential in the organization with the city council. <i>(Vi undersøger ofte nye potentialer i organisationen med byrådet.)</i>
Q77	We have regular discussions of new visions for the municipality with the city council. <i>(Vi har regelmæssige drøftelser af nye visioner for kommunen med byrådet.)</i>

Q80	It is easy for employees to bring new ideas to us, the mayor and municipal CEO. <i>(Det er nemt for medarbejderne at komme med nye ideer til os, borgmester og kommunaldirektør.)</i>
Q81	We have a culture in which we, as mayor and municipal CEO, promote new ideas. <i>(Vi har en kultur, hvor vi som borgmester og kommunaldirektør fremmer nye ideer.)</i>
Q82	It is easy for employees to speak up with new ideas. <i>(Det er nemt for medarbejderne at komme til orde med nye ideer.)</i>

This structure reflects the distinction between dyadic praxis and wider municipal practices. The item set begins with the mayor and municipal CEO's own strategizing and extends to practices involving directors, the city council, and the wider organization.

9.2.2 Items for strategic readiness perceived by the directors

The director-perceived item pool is based on the administrative respondent position. Directors report how they perceive the strategic dyad's strategizing from the administrative leadership layer. The item pool therefore concerns the dyad's strategizing as it becomes available through administrative preparation, coordination, follow-up, and interaction with the directors.

The systematic items in Table 9.5 ask whether directors perceive structure in the dyad's strategic work. The first sequence of items concerns plans, external communication, goals, strategic meeting themes, plan adjustments, and the evaluation of strategic collaboration. These items intend to capture the internal structure of the dyad's work as directors perceive it (Q97, Q98, Q99, Q100, Q102, and Q103).

A second group concerns the systematic involvement of directors, asking whether the dyad sets goals for director involvement, follows up on this involvement, includes directors in planning and evaluation, and observes the organization together with directors. These items are central to the director-perceived item pool because they ask about how the dyad structures strategic work in relation to the administrative leadership layer (Q125, Q126, Q132, Q135, Q140, and Q143).

A third group concerns the city council as perceived by directors. Items ask about follow-up on city council involvement, regular strategic meetings, evaluations, planning, goal sharing, and evaluation of previous strategic processes. Directors may not be the political addressees of these practices, but they can perceive whether the dyad gives its relationship to the political arena a systematic form (Q148, Q149, Q151, Q154, Q155, and Q160).

Two items ask about a culture that rewards new ideas and about inviting former employees to draw on their experience (Q169 and Q170).

Table 9.5: Director-perceived systematic strategizing items

QID	Item wording
Q97	In their work on strategic tasks, they work according to a plan. <i>(I deres samarbejde om de strategiske opgaver arbejder de efter en plan.)</i>
Q98	They communicate about their strategic work externally. <i>(De kommunikerer om deres strategiske arbejde til omverdenen.)</i>
Q99	They set goals for their strategic work. <i>(De sætter mål for deres strategiske arbejde.)</i>
Q100	Their planned meetings concern strategic themes. <i>(Deres planlagte møder handler om strategiske temaer.)</i>
Q102	They spend time adjusting the plans they have made. <i>(De bruger tid på at justere de planer, de har lagt.)</i>
Q103	They spend time evaluating their strategic collaboration. <i>(De bruger tid på at evaluere deres strategiske samarbejde.)</i>
Q108	They systematically follow up on their meetings with stakeholders. <i>(De samler struktureret op på deres møder med interessenter.)</i>
Q113	They are structured in their observations of the organization. <i>(De er strukturerede i deres observationer af organisationen.)</i>
Q125	They set clear goals for their involvement of the directors. <i>(De sætter tydelige mål for deres inddragelse af direktionen.)</i>
Q126	They are systematic in their follow-up from involving the directors. <i>(De er systematiske i deres opsamling fra inddragelsen af direktionen.)</i>
Q132	They involve the directors in planning strategic tasks. <i>(De inddrager direktionen i planlægningen af strategiske opgaver.)</i>
Q135	Together with the directors, they evaluate the strategic work. <i>(Sammen med direktionen evaluerer de det strategiske arbejde.)</i>
Q140	They involve the directors in the evaluation of previous strategic processes. <i>(De inddrager direktionen i evalueringen af tidligere strategiske processer.)</i>
Q143	Together with the directors, they are structured in their observations of the organization. <i>(Sammen med direktionen er de strukturerede i deres observationer af organisationen.)</i>
Q148	They are systematic in their follow-up from involving the city council. <i>(De er systematiske i deres opsamlinger fra inddragelsen af byrådet.)</i>
Q149	They have regular meetings with the city council about strategic tasks outside of regular city council meetings. <i>(De har regelmæssige møder med byrådet om strategiske opgaver uden om byrådsmøderne.)</i>

Q151	Together with the city council, they conduct systematic evaluations of the strategic work. <i>(De har sammen systematiske evalueringer af det strategiske arbejde med byrådet.)</i>
Q154	As a rule, they involve the city council in planning strategic tasks. <i>(De inddrager som udgangspunkt byrådet i planlægningen af strategiske opgaver.)</i>
Q155	They systematically share their goals for the organization with the city council. <i>(De deler systematisk deres mål for organisationen med byrådet.)</i>
Q160	They involve the city council in the evaluation of previous strategic processes. <i>(De inddrager byrådet i evalueringen af tidligere strategiske processer.)</i>
Q169	We have a culture in which we reward new ideas. <i>(Vi har en kultur, hvor vi belønner nye ideer.)</i>
Q170	We regularly invite former employees to talk with us in order to draw on their experience from their time in the municipality. <i>(Vi inviterer jævnligt tidligere medarbejdere til samtale for at bruge deres erfaringer fra deres tid i kommunen.)</i>

The coordinated items in Table 9.6 intend to capture whether directors perceive the dyad as aligned in its strategic work. The first group concerns the dyad's internal coordination, asking about shared understanding, feedback, expectations, agreement on tasks, stakeholder choices, division of responsibility, reflection on the organization, language about the organization, and use of municipal conditions (Q93, Q95, Q96, Q101, Q104, Q107, Q110, Q114, and Q117).

A second group concerns the directors' own position in the coordination process. Here, items ask whether directors know the dyad's division of responsibility, understand expectations in the dyad, receive and provide feedback, understand goals, discuss conditions, reflect on organizational language, and receive observations. These items intend to capture whether the dyad makes its strategic coordination available to the administrative leadership layer (Q124, Q127, Q128, Q129, Q130, Q134, Q138, Q141, and Q144).

The final group concerns the dyad's coordination with the city council, asking about what the city council is involved in, expectations of the city council, feedback from and to the city council, involvement before decisions, and discussion of municipal conditions (Q146, Q147, Q152, Q153, Q159, and Q161).

Table 9.6: Director-perceived coordinated strategizing items

QID	Item wording
Q93	Through their dialogues, they often reach a shared understanding of the strategic task. (Gennem deres dialoger når de ofte frem til en fælles forståelse af den strategiske opgave.)
Q95	They give feedback to each other. (De giver feedback til hinanden.)
Q96	They spend time aligning their expectations of each other in the strategic collaboration. (De bruger tid på at afstemme forventninger til hinanden i det strategiske samarbejde.)
Q101	In their strategic collaboration, they spend time agreeing on who does what. (I deres strategiske samarbejde bruger de tid på at aftale, hvem der gør hvad.)
Q104	They have dialogues about which stakeholders they should meet with. (De har dialoger om, hvilke interessenter de skal mødes med.)
Q107	They have a precise division of responsibility regarding which of them participates in which external settings. (De har en præcis fordeling af, hvem af dem der deltager i hvilke eksterne sammenhænge.)
Q110	They reflect on their understanding of the organization. (De reflekterer over deres forståelse af organisationen.)
Q114	In their dialogues, they regularly reflect on how they talk about the organization. (I deres dialoger reflekterer de regelmæssigt over, hvordan de taler om organisationen.)
Q117	They discuss how conditions can be used to the benefit of the municipality. (De diskuterer, hvordan vilkår kan udnyttes til fordel for kommunen.)
Q118	They actively give feedback throughout the organization. (De giver aktiv feedback rundt i organisationen.)
Q119	They actively seek feedback in the organization on their strategic work. (De opsøger aktiv feedback i organisationen på deres strategiske arbejde.)
Q120	They invite former employees to talk with them in order to draw on their experience from their time in the municipality. (De inviterer tidligere medarbejdere til samtale for at bruge deres erfaringer fra deres tid i kommunen.)
Q121	They invite new employees to talk with them in order to actively draw on their experience from previous employment. (De inviterer nye medarbejdere til samtale for aktivt at bruge deres erfaringer fra tidligere ansættelser.)
Q124	They have dialogues about involving the directors. (De har dialoger om inddragelse af direktionen.)
Q127	As a director, I have a clear picture of the division of responsibility in their dyad. (Som direktør har jeg et klart billede af arbejdsdelingen i deres makkerpar.)

Q128	As a director, I know their expectations of each other in the dyad. <i>(Som direktør kender jeg deres forventninger til hinanden i deres makkerpar.)</i>
Q129	They give feedback to the directors on our strategic contribution. <i>(De giver feedback til direktionen på vores strategiske bidrag.)</i>
Q130	They seek feedback from the directors on their own strategic collaboration. <i>(De opsøger feedback fra direktionen på deres eget strategiske samarbejde.)</i>
Q134	They share their goals for the organization with the directors. <i>(De deler deres mål for organisationen med direktionen.)</i>
Q138	Together with the directors, they discuss how conditions can be used to the benefit of the municipality. <i>(De diskuterer med direktionen, hvordan vilkår kan udnyttes til fordel for kommunen.)</i>
Q141	Together with the directors, they reflect on how the organization is talked about. <i>(Sammen med direktionen reflekterer de over, hvordan organisationen omtales.)</i>
Q144	They share their own observations of the organization with the directors. <i>(De deler deres egne observationer af organisationen med direktionen.)</i>
Q146	They have regular dialogues about what they involve the city council in. <i>(De har regelmæssige dialoger om, hvad de inddrager byrådet i.)</i>
Q147	As a rule, they have clear expectations of the city council's contribution to the strategic work. <i>(De har som udgangspunkt klare forventninger til byrådets bidrag til det strategiske arbejde.)</i>
Q152	They regularly seek feedback from the city council on their own work. <i>(De opsøger regelmæssig feedback fra byrådet på deres eget arbejde.)</i>
Q153	As a rule, they involve the city council before they make strategic decisions. <i>(Som udgangspunkt inddrager de byrådet før de træffer strategiske beslutninger.)</i>
Q159	They regularly give feedback to the city council on its strategic contribution. <i>(De giver regelmæssig feedback til byrådet på deres strategiske bidrag.)</i>
Q161	They often discuss with the city council how conditions can be used to the benefit of the municipality. <i>(De diskuterer ofte med byrådet, hvordan vilkår kan udnyttes til fordel for kommunen.)</i>

The collaborative items in Table 9.7 ask whether directors perceive the dyad as open to joint development. The first three concern trust, constructive disagreement, and active use of differences in the dyad. These items capture the relational basis of collaborative strategizing as directors perceive it (Q91, Q92, and Q94).

The next group concerns exploration and the development of possibilities. Items ask whether the dyad uses other people's ideas, draws inspiration from external relations, challenges its understanding of the organization, explores potential, discusses opportunities, and develops visions. These items are intended to

capture the generative side of strategic readiness from the administrative observer position (Q105, Q106, Q111, Q112, Q115, and Q116).

A third group concerns collaboration with directors. They ask whether the dyad uses directors as a source of inspiration, seeks inspiration from them, and discusses opportunities, visions, new understandings, potential, and ideas from the organization. These items focus on whether directors experience themselves as part of the dyad's development of possibilities (Q131, Q133, Q136, Q137, Q139, Q142, and Q145).

The city council items ask whether the dyad also develops possibilities with the political level (Q150, Q156, Q157, Q158, Q162, and Q163). Three items ask about the circulation of organizational ideas, whether employees can bring ideas to directors, whether directors promote new ideas, and whether employees can speak up (Q166, Q167, and Q168).

Table 9.7: Director-perceived collaborative strategizing items

QID	Item wording
Q91	Their strategic collaboration is fundamentally characterized by trust. <i>(Deres strategiske samarbejde er grundlæggende præget af tillid.)</i>
Q92	They have constructive dialogues about the strategic issues on which they disagree. <i>(De har konstruktive dialoger om det strategiske, de er uenige om.)</i>
Q94	They actively use their differences in their collaboration. <i>(De bruger deres forskellighed aktivt i deres samarbejde.)</i>
Q105	In their strategic work, they use other people's ideas. <i>(I deres strategiske arbejde bruger de andres idéer.)</i>
Q106	They actively use inspiration from meetings with external relations. <i>(De bruger aktivt inspiration fra møder med eksterne relationer.)</i>
Q111	They have discussions in which they challenge their own understanding of the organization. <i>(De har drøftelser, hvor de udfordrer deres egen forståelse af organisationen.)</i>
Q112	They explore new potential in the organization. <i>(De undersøger nye potentialer i organisationen.)</i>
Q115	They have dialogues about new opportunities for the municipality. <i>(De har dialoger om nye muligheder for kommunen.)</i>
Q116	They have discussions about new visions for the municipality. <i>(De har drøftelser om nye visioner for kommunen.)</i>
Q131	They regard the directors as an important source of inspiration for developing new solutions. <i>(De anser direktionen som en vigtig inspirationskilde til udvikling af nye løsninger.)</i>
Q133	Together with the directors, they seek inspiration from outside. <i>(Sammen med direktionen indhenter de inspiration udefra.)</i>

Q136	They have dialogues with the directors about new opportunities for the municipality. (<i>De har dialoger med direktionen om nye muligheder for kommunen.</i>)
Q137	They discuss new visions for the municipality with the directors. (<i>De drøfter nye visioner for kommunen med direktionen.</i>)
Q139	They have discussions with the directors about new understandings of the organization. (<i>De har drøftelser med direktionen om nye forståelser af organisationen.</i>)
Q142	They explore new potential in the organization with the directors. (<i>De undersøger nye potentialer i organisationen med direktionen.</i>)
Q145	Together with the directors, they discuss ideas that the directors receive from the organization. (<i>Sammen med direktionen drøfter de ideer, direktørerne får fra organisationen.</i>)
Q150	Together with the city council, they often seek inspiration from outside. (<i>Sammen med byrådet indhenter de ofte inspiration udefra.</i>)
Q156	They have regular discussions with the city council about their understanding of the organization. (<i>De har regelmæssige drøftelser med byrådet om deres forståelse af organisationen.</i>)
Q157	They often have dialogues with the city council about new opportunities for the municipality. (<i>De har ofte dialoger med byrådet om nye muligheder for kommunen.</i>)
Q158	They often use the city council as an important source of inspiration for developing new solutions. (<i>De bruger ofte byrådet som vigtig inspirationskilde til udvikling af nye løsninger.</i>)
Q162	They often explore new potential in the organization with the city council. (<i>De undersøger ofte nye potentialer i organisationen med byrådet.</i>)
Q163	They have regular discussions of new visions for the municipality with the city council. (<i>De har regelmæssige drøftelser af nye visioner for kommunen med byrådet.</i>)
Q166	It is easy for employees to bring new ideas to us directors. (<i>Det er nemt for medarbejderne at komme med nye ideer til os direktører</i>)
Q167	We have a culture in which we, as directors, promote new ideas. (<i>Vi har en kultur, hvor vi som direktører fremmer nye ideer.</i>)
Q168	It is easy for employees to speak up with new ideas. (<i>Det er nemt for medarbejderne at komme til orde med nye ideer.</i>)

9.2.3 Items for strategic readiness perceived by the city councilors

The city councilor-perceived item pool captures how politicians in the elected municipal council perceive the strategic dyad's strategizing.

Table 9.8 presents the systematic items intended to capture whether city councilors perceive structure in the dyad's strategic work with the political level. First items ask about follow-up, regular strategic meetings, systematic

evaluation, planning, goal sharing, and evaluation of previous strategic processes involving the city council. These items intend to capture systematic strategizing perceived by the political arena through structured interaction (Q181, Q182, Q184, Q187, Q188, and Q193). One asks whether the city council perceives a culture in which new ideas are rewarded. It does not directly describe the dyad's planning or follow-up (Q202).

Table 9.8: City councilor-perceived systematic strategizing items

QID	Item wording
Q181	They are systematic in their follow-up from involving the city council. <i>(De er systematiske i deres opsamlinger fra inddragelsen af byrådet.)</i>
Q182	They have regular meetings with the city council about strategic tasks outside of regular city council meetings. <i>(De har regelmæssige møder med byrådet om strategiske opgaver uden om byrådsmøderne.)</i>
Q184	Together with the city council, they conduct systematic evaluations of the strategic work. <i>(De har sammen systematiske evalueringer af det strategiske arbejde med byrådet.)</i>
Q187	As a rule, they involve the city council in planning strategic tasks. <i>(De inddrager som udgangspunkt byrådet i planlægningen af strategiske opgaver.)</i>
Q188	They systematically share their goals for the organization with the city council. <i>(De deler systematisk deres mål for organisationen med byrådet.)</i>
Q193	They involve the city council in the evaluation of previous strategic processes. <i>(De inddrager byrådet i evalueringen af tidligere strategiske processer.)</i>
Q202	We have a culture in which we reward new ideas. <i>(Vi har en kultur, hvor vi belønner nye ideer.)</i>

The coordinated items in Table 9.9 intend to capture whether city councilors perceive the dyad as creating a coordinated political relationship around strategic work. Two items ask about regular dialogues concerning city council involvement and expectations of the city council's contribution (Q179 and Q180). Two items ask about feedback between the dyad and the city council (Q185 and Q192). Then one item asks whether the dyad involves the city council before strategic decisions (Q186). Finally, one item asks whether the dyad discusses how municipal conditions can be used to the municipality's benefit (Q194).

Table 9.9: City councilor-perceived coordinated strategizing items

QID	Item wording
Q179	They have regular dialogues about what they involve the city council in. <i>(De har regelmæssige dialoger om, hvad de inddrager byrådet i.)</i>
Q180	As a rule, they have clear expectations of the city council's contribution to the strategic work. <i>(De har som udgangspunkt klare forventninger til byrådets bidrag til det strategiske arbejde.)</i>
Q185	They regularly seek feedback from the city council on their own work. <i>(De opsøger regelmæssig feedback fra byrådet på deres eget arbejde.)</i>
Q186	As a rule, they involve the city council before they make strategic decisions. <i>(Som udgangspunkt inddrager de byrådet før de træffer strategiske beslutninger.)</i>
Q192	They regularly give feedback to the city council on its strategic contribution. <i>(De giver regelmæssig feedback til byrådet på deres strategiske bidrag.)</i>
Q194	They often discuss with the city council how conditions can be used to the benefit of the municipality. <i>(De diskuterer ofte med byrådet, hvordan vilkår kan udnyttes til fordel for kommunen.)</i>

The collaborative items in Table 9.10 ask whether city councilors perceive the dyad as engaging in strategic possibility development in the political arena. First, there is a sequence of items asking about inspiration, discussions of organizational understanding, opportunities, the city council as a source of inspiration, potentials, and visions. These items intend to capture whether strategic work with the city council includes exploration and shared development (Q183, Q189, Q190, Q191, Q195, and Q196).

Three items ask whether employees can bring ideas to directors and the mayor, whether the city council promotes new ideas, and whether employees can speak up (Q199, Q200, and Q201).

Table 9.10: City councilor-perceived collaborative strategizing items

QID	Item wording
Q183	Together with the city council, they often seek inspiration from outside. (<i>Sammen med byrådet indhenter de ofte inspiration udefra.</i>)
Q189	They have regular discussions with the city council about their understanding of the organization. (<i>De har regelmæssige drøftelser med byrådet om deres forståelse af organisationen.</i>)
Q190	They often have dialogues with the city council about new opportunities for the municipality. (<i>De har ofte dialoger med byrådet om nye muligheder for kommunen.</i>)
Q191	They often use the city council as an important source of inspiration for developing new solutions. (<i>De bruger ofte byrådet som vigtig inspirationskilde til udvikling af nye løsninger.</i>)
Q195	They often explore new potential in the organization with the city council. (<i>De undersøger ofte nye potentialer i organisationen med byrådet.</i>)
Q196	They have regular discussions of new visions for the municipality with the city council. (<i>De har regelmæssige drøftelser af nye visioner for kommunen med byrådet.</i>)
Q199	It is easy for employees to bring new ideas to the directors and the mayor. (<i>Det er nemt for medarbejderne at komme med nye ideer til direktionen og borgmesteren.</i>)
Q200	We have a culture in which we, as the city council, promote new ideas. (<i>Vi har en kultur, hvor vi som byråd fremmer nye ideer.</i>)
Q201	It is easy for employees to speak up with new ideas. (<i>Det er nemt for medarbejderne at komme til orde med nye ideer.</i>)

9.2.4 Parallel items across the three questionnaire versions

The nine-item tables show the content of items for each respondent group and dimension. The tables show the parallel relation of items across questionnaire versions. They show how similar item foci appear in the dyad, director, and city councilor questionnaires.

The dyad-reported items serve as the point of departure for the parallel tables. The director and city councilor columns show whether a corresponding measurement focus is represented in the two perceived measures. A blank cell means that the questionnaire version does not contain a directly corresponding item.

The systematic parallel table, Table 9.11, shows the structure across respondent positions. Internal planning, goals, meetings, and follow-ups appear in the dyad and director questionnaires.

Table 9.11: Parallel items across questionnaire versions for systematic strategizing

Shared measurement focus	Dyad-reported QID	Director-perceived QID	City councilor-perceived QID
Working according to a plan	Q11	Q97	—
Communicating strategic work externally	Q12	Q98	—
Setting goals for strategic work	Q13	Q99	—
Planned meetings about strategic themes	Q14	Q100	—
Adjusting plans	Q16	Q102	—
Evaluating strategic collaboration	Q17	Q103	—
Following up on stakeholder meetings	Q22	Q108	—
Structured observations of the organization	Q27	Q113	—
Setting goals for involving directors	Q39	Q125	—
Following up on director involvement	Q40	Q126	—
Involving directors in planning strategic tasks	Q46	Q132	—
Evaluating strategic work with directors	Q49	Q135	—
Involving directors in evaluations of previous strategic processes	Q54	Q140	—
Structured observations of the organization with directors	Q57	Q143	—
Following up on city council involvement	Q62	Q148	Q181
Regular strategic meetings with the city council	Q63	Q149	Q182
Systematic evaluation of strategic work with the city council	Q65	Q151	Q184
Involving the city council in planning strategic tasks	Q68	Q154	Q187
Sharing organizational goals with the city council	Q69	Q155	Q188
Involving the city council in evaluations of previous strategic processes	Q74	Q160	Q193
Culture that rewards new ideas	Q83	Q169	Q202
Inviting former employees to draw on experience	Q84	Q170	—

The coordinated parallel table, Table 9.12, shows how alignment is represented across the questionnaire versions. Internal coordination in the dyad appears in the dyad and director questionnaires. The city councilor questionnaire contains parallel items where coordination concerns the political level, including expectations, feedback, involvement, and discussion of municipal conditions.

Table 9.12: Parallel items across questionnaire versions for coordinated strategizing

Shared measurement focus	Dyad-reported QID	Director-perceived QID	City councilor-perceived QID
Reaching shared understanding through dialogue	Q7	Q93	—
Giving feedback within the dyad	Q9	Q95	—
Aligning expectations within the dyad	Q10	Q96	—
Agreeing on who does what	Q15	Q101	—
Dialogues about which stakeholders to meet	Q18	Q104	—
Division of responsibility in external settings	Q21	Q107	—
Reflecting on understanding of the organization	Q24	Q110	—
Reflecting on how the organization is talked about	Q28	Q114	—
Discussing how conditions can benefit the municipality	Q31	Q117	—
Giving feedback within the organization	Q32	Q118	—
Seeking feedback in the organization	Q33	Q119	—
Inviting former employees to draw on experience	Q34	Q120	—
Inviting new employees to draw on previous experience	Q35	Q121	—
Dialogues about involving directors	Q38	Q124	—
Directors' knowledge of division of responsibility in the dyad	Q41	Q127	—
Directors' knowledge of expectations within the dyad	Q42	Q128	—
Giving feedback to directors	Q43	Q129	—
Seeking feedback from directors	Q44	Q130	—

Sharing organizational goals with directors	Q48	Q134	—
Discussing municipal conditions with directors	Q52	Q138	—
Reflecting with directors on how the organization is talked about	Q55	Q141	—
Sharing observations of the organization with directors	Q58	Q144	—
Dialogues about what the city council is involved in	Q60	Q146	Q179
Expectations of the city council's contribution	Q61	Q147	Q180
Seeking feedback from the city council	Q66	Q152	Q185
Involving the city council before strategic decisions	Q67	Q153	Q186
Giving feedback to the city council	Q73	Q159	Q192
Discussing municipal conditions with the city council	Q75	Q161	Q194

The final table, Table 9.13, concerns collaborative strategizing. The collaborative parallel table shows the generative dimension of strategic readiness. Trust, disagreement, and active use of differences are close to the dyad's internal relation and appear in the dyad and director questionnaires. Collaboration with directors occurs when the dyad invites the administrative leadership layer to contribute inspiration, ideas, opportunities, and visions. Collaboration with the city council appears when the dyad opens strategic development possibilities for elected actors.

Table 9.13: Parallel items correspondence across questionnaire versions for collaborative strategizing

Shared measurement focus	Dyad-reported QID	Director-perceived QID	City councilor-perceived QID
Trust in the dyad's strategic collaboration	Q5	Q91	—
Constructive dialogue about strategic disagreement	Q6	Q92	—
Active use of differences in collaboration	Q8	Q94	—
Using other people's ideas	Q19	Q105	—
Using inspiration from external relations	Q20	Q106	—
Challenging own understanding of the organization	Q25	Q111	—
Exploring new potential in the organization	Q26	Q112	—
Dialogues about new opportunities for the municipality	Q29	Q115	—
Discussions about new visions for the municipality	Q30	Q116	—
Directors as a source of inspiration	Q45	Q131	—
Seeking inspiration from outside with directors	Q47	Q133	—
Dialogues with directors about new opportunities	Q50	Q136	—
Discussing new visions with directors	Q51	Q137	—
Discussing new understandings with directors	Q53	Q139	—
Exploring new potential with directors	Q56	Q142	—
Discussing organizational ideas with directors	Q59	Q145	—
Seeking inspiration from outside with the city council	Q64	Q150	Q183
Discussing understanding of the organization with the city council	Q70	Q156	Q189
Dialogues with the city council about new opportunities	Q71	Q157	Q190
City council as a source of inspiration	Q72	Q158	Q191

Exploring new potential with the city council	Q76	Q162	Q195
Discussing new visions with the city council	Q77	Q163	Q196
Employees can bring new ideas to the executive leadership	Q80	Q166	Q199
Organizational culture promotes or rewards new ideas	Q81	Q167	Q200
Employees can speak up with new ideas	Q82	Q168	Q201

Taken together, Tables 9.11–9.13 clarify the internal architecture of the questionnaire design. The dyad-reported and director-perceived measures align closely in their item structure because directors are positioned close to the dyad’s daily strategic work. The city councilor-perceived measure is narrower because it captures the parts of dyadic strategic readiness that can plausibly become visible in the political arena.

9.3 Summary of the questionnaire material

Chapter 9 establishes the questionnaire material used in the construction of the measurement. The material consists of before and after questionnaire responses from the strategic dyad, directors, and city councilors. The response material is organized by respondent group, measurement wave, municipality, training status, stratum, and item identifier. This structure enables linking individual questionnaire responses to the respondent-specific measures linked to the hypotheses.

The chapter also establishes the statement-based item pools. The items are formulated as statements and answered on a 5-point Likert scale. They are organized around systematic, coordinated, and collaborative strategizing and adapted to the respondent position from which the dyad’s strategizing is reported or perceived. The items, therefore, provide the substantive material for constructing dimension scales for strategic readiness reported by the strategic dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors.

The questionnaire material is now ready for measurement construction. The response material identifies the available answers. The items identify the statements assigned to each respondent-specific measure and dimension. The data elements link those answers to municipality, wave, respondent group, training status, stratum, and role information where relevant.

10. Constructing the strategic readiness measures

This chapter constructs the three respondent-specific measures used in the comparative analysis. The measures operationalize one systematized concept of strategic readiness from three institutional respondent positions. Measurement construction proceeds from item answers to dimension scales and from dimension scales to overall indices.

The measurement construction proceeds in two steps. First, item answers are used to construct dimension scales for systematic, coordinated, and collaborative strategizing within each respondent-specific measure. Second, the three dimension scales are combined into one overall index for each respondent-specific measure. The overall index is formed by the three dimensions; it is not treated as a reflective scale in which the dimensions are interchangeable indicators of the same latent item-level factor.

The chapter first sets out the principles for scale and index construction. It then examines the item pools through factor-analytic diagnostics and substantive item assessment, establishes the final dimension scales, constructs the overall indices, and inspects their baseline placement before the comparative analysis begins.

10.1 Principles for scale and index construction

The first measurement task is to establish whether the item pools can support dimension scales for systematic, coordinated, and collaborative strategizing. The second task is to construct a theory-defined composite overall index for each respondent-specific measure.

Each respondent-specific measure is constructed in two stages. In the first stage, systematic strategizing, coordinated strategizing, and collaborative strategizing are constructed as separate dimension scales. In the second stage, the overall index is constructed as the mean of the three dimension scales. This construction preserves the conceptual structure of strategic readiness because each overall index is formed by the three dimensions. The three dimensions receive equal weight as a study-specific scoring decision. The decision reflects their equal conceptual status and prevents dimensions with different numbers of retained items from receiving different implicit weights in the overall index. Systematic, coordinated, and collaborative strategizing have equal conceptual status, and each defines a different analytical aspect of the same concept. Equal weighting also prevents dimensions with larger item pools from contributing more to the overall index than dimensions with fewer retained items.

The construction combines theoretical specification and empirical diagnostics. The item pools are theory specified, because the items were developed to represent systematic, coordinated, and collaborative strategizing from each respondent position. The final dimension scales are established after factor-analytic diagnostics and substantive item evaluation. This combination maintains the link between conceptualization, the systematized concept, indicators and measurement procedures, and the resulting scores for cases (Adcock and Collier 2001; DeVellis and Thorpe 2022).

10.2 Factor-analytic diagnostics and substantive item evaluation

The diagnostics examine whether the items assigned to each respondent-specific measure and dimension provide a defensible basis for constructing final dimension scales. The diagnostic work combines factor-analytic diagnostics and substantive item evaluation. The questionnaire statements use ordered Likert-type response categories. The diagnostics therefore use polychoric correlations, which estimate associations between latent continuous response variables underlying the observed ordered categories (Flora and Curran 2004; Holgado-Tello et al. 2010; Sellbom and Goretzko 2023).

Each respondent-specific dimension pool is examined with a one-factor exploratory factor analysis using principal axis factoring. The one-factor specification follows from the theory-specified items. Each item pool is assigned to one dimension within one respondent-specific measure. Principal axis factoring fits the task because the diagnostics examine common item association within each dimension scale rather than reducing the full questionnaire into broader components (DeVellis and Thorpe 2022; Fabrigar and Wegener 2011). The one-factor analyses are used as within-pool coherence diagnostics. They do not determine the number of dimensions in strategic readiness, test the full three-dimensional measurement structure, or establish discriminant validity between systematic, coordinated, and collaborative strategizing.

The diagnostics also report the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. The KMO measure indicates whether the item correlations provide a sufficient basis for factor analysis by comparing common variance with partial correlations. Bartlett's test indicates whether the item correlation matrix differs from an identity matrix. Together, these diagnostics describe whether each item pool has enough inter-item association to support further factor-analytic evaluation (Dziuban and Shirkey 1974; Kaiser and Rice 1974; Sellbom and Goretzko 2023).

The diagnostics use the before and after questionnaire records jointly for each respondent-specific measure and dimension. This gives the diagnostics the full available response material for each item pool before scale values are calculated.

Item retention is completed and documented before dimension scales and overall indices are constructed for the comparative analysis.

When an estimated polychoric correlation matrix was not positive definite, smoothing was applied before factor extraction. Smoothing permits factor extraction but may affect dimensionality diagnostics. Results based on smoothed matrices are therefore interpreted cautiously (Debelak and Tran 2016; Holgado-Tello et al. 2010).

The printed Appendix A10 reports the full diagnostic summary, including smoothing, KMO, Bartlett's test, one-factor SS loadings, and one-factor variance. The public online appendix contains the factor-loading table and the technical output underlying the diagnostic summary.

Table 10.1 reports the factor-analytic diagnostics for the nine dimension-specific item pools. The diagnostics are used to examine whether each theory-specified item pool provides a defensible basis for constructing a dimension scale. Each analysis is a one-factor exploratory factor analysis because each item pool is assigned to one dimension within one respondent-specific measure.

The diagnostic data matrix column shows the size of the analysis behind each result. The first number reports the number of questionnaire response records used in the diagnostics. The second number reports the number of initial items assigned to the relevant respondent-specific measure and dimension. For example, the dyad-reported systematic item pool is examined through a matrix of 47 response records and 22 initial items. The full factor-loading table is provided in the public online appendix and is used to identify items with loadings below .50. The printed Appendix A10 reports the full diagnostic summary and the lower-loading items reviewed through substantive item evaluation.

Table 10.1 gives four results relevant for scale construction. First, Bartlett's test is significant at $p < .001$ for all nine item pools, indicating that the correlation matrices differ from identity matrices. This establishes the presence of inter-item association but does not establish unidimensionality or adequate factorability on its own.

Second, the KMO results differ substantially across the item pools. The city councilor-perceived pools have favorable KMO values, ranging from 0.863 to 0.890. In contrast, the dyad-reported systematic pool has a KMO of 0.484, and the director-perceived systematic pool has a KMO of 0.449. Several other dyad-reported and director-perceived pools have values close to 0.50. These values indicate weak or marginal factor adequacy and limit the evidential weight that can be placed on the corresponding factor solutions.

Third, the city councilor-perceived item pools display more favorable one-factor diagnostics than the dyad-reported and director-perceived pools. Because the respondent groups differ in the number of records and the number and content of items, this comparison is descriptive and should not be read as a direct test of which measure has the stronger underlying factor structure.

Table 10.1: Factor-analytic diagnostics by respondent-specific measure and dimension

Respondent-specific measure	Dimension	Diagnostic data matrix	Polychoric smoothing	KMO	One-factor variance
Strategic readiness reported by the dyad	Systematic	47 records × 22 items	Yes	0.484	45.9%
Strategic readiness reported by the dyad	Coordinated	47 records × 28 items	Yes	0.594	35.0%
Strategic readiness reported by the dyad	Collaborative	47 records × 25 items	Yes	0.500	35.7%
Strategic readiness perceived by directors	Systematic	45 records × 22 items	Yes	0.449	35.2%
Strategic readiness perceived by directors	Coordinated	45 records × 28 items	Yes	0.699	41.3%
Strategic readiness perceived by directors	Collaborative	45 records × 25 items	Yes	0.509	28.6%
Strategic readiness perceived by city councilors	Systematic	157 records × 7 items	No	0.872	60.0%
Strategic readiness perceived by city councilors	Coordinated	157 records × 6 items	No	0.890	58.4%
Strategic readiness perceived by city councilors	Collaborative	157 records × 9 items	No	0.863	57.8%

Note: The diagnostic data matrix reports the number of questionnaire response records and the number of initial items used in each one-factor exploratory factor analysis. KMO values are calculated from the polychoric correlation matrices. Bartlett's test of sphericity was significant at $p < .001$ for all nine item pools. One-factor variance reports the proportion of variance accounted for by the one-factor solution. Appendix A10 reports the lower-loading items reviewed and the final item pools used for score construction. The public online appendix contains the factor-loading table, QID decision basis, and final item-pool documentation.

Fourth, polychoric smoothing was required for the dyad-reported and director-perceived item pools but not for the city councilor-perceived item pools. This means that the polychoric correlation matrices for dyad and director items required technical adjustment before factor extraction, while the city councilor matrices could be analyzed without smoothing. This further supports a cautious interpretation of the factor-analytic diagnostics for the dyad-reported and director-perceived item pools.

The diagnostic pattern supports a combined item-retention procedure. KMO values, one-factor variance, and factor loadings provide empirical diagnostics of

the item pools, but they do not determine the final scale content on their own. Scale development research treats item retention as a decision that combines empirical item behavior with theoretical definition, item wording, content coverage, and the intended meaning of the construct (DeVellis and Thorpe 2022; Fabrigar and Wegener 2011; Worthington and Whittaker 2006).

Items with loadings of .50 or higher are retained in the final dimension scale when their wording is consistent with the dimension. A loading of .50 is used as a study-specific screening threshold. In a standardized one-factor solution, a loading of .50 has a squared loading of .25, indicating that the factor accounts for approximately one quarter of the item's variance (Fabrigar and Wegener 2011).

Items with loadings below .50 are evaluated substantively before they are retained or excluded. This step is important because the item pools are theory-driven and the measures have not been tested in prior research. Some lower-loading items may still represent theoretically central parts of systematic, coordinated, or collaborative strategizing (Clark and Watson 2019; Fabrigar et al. 1999; Hinkin, Tracey, and Enz 1997; Worthington and Whittaker 2006). Other lower-loading items may instead represent adjacent conditions, such as general idea culture, access to inspiration, broad openness to new ideas, or retrospective evaluation.

Substantive item evaluation is conducted as a theory-guided adjudication of item wording, dimensional fit, content coverage, distinctiveness from adjacent conditions, and empirical loading. Because the measures were developed for this study, these decisions are documented at QID level in Appendix A10 and fixed before scale construction and comparative analysis. The question is whether the item wording can reasonably be interpreted as measuring the assigned dimension: systematic, coordinated, or collaborative strategizing. This assessment is grounded in the conceptual definition developed in the dissertation. The items were developed specifically for this study, and the measures have not been tested in prior research. Substantive content judgment does not stand alone. It is considered together with factor loading, dimensional fit, content coverage, distinctiveness from adjacent constructs, and overlap with other items (Clark and Watson 2019; DeVellis and Thorpe 2022).

10.3 Final dimension scales

Table 10.2 reports the final composition of the dimension scales after factor-analytic diagnostics and substantive item evaluation. The table is organized by respondent-specific measure and dimension. Each cell reports the number of items retained in the final dimension scale and the number of initial items examined before diagnostics and evaluation.

The item-retention decisions also clarify why item content matters. Some lower-loading items are retained because they capture theoretically central forms of strategizing that items with stronger loadings do not cover. Other items are

excluded because they move away from enacted strategizing and instead measure adjacent conditions, such as general idea culture, broad receptivity to new ideas, or retrospective evaluation.

Table 10.2: Final dimension scales after diagnostics and item evaluation

Measure	Systematic strategizing	Coordinated strategizing	Collaborative strategizing
Strategic readiness reported by the dyad	19 of 22 items	27 of 28 items	22 of 25 items
Strategic readiness perceived by directors	16 of 22 items	25 of 28 items	17 of 25 items
Strategic readiness perceived by city councilors	7 of 7 items	6 of 6 items	9 of 9 items

Note: The first number reports the number of items included in the final dimension scale. The second number reports the number of items examined before factor-analytic diagnostics and substantive item evaluation. Full item-retention documentation is reported in Appendix A10 and in the public online appendix. The printed appendix reports the lower-loading items reviewed and the final item pools used for score construction; the public online appendix contains the factor-loading table, QID decision basis, and item-review sheet.

Table 10.2 shows two features of the final scales. First, the city councilor-perceived measure retains all initial items. These items all meet the loading criterion. Second, the dyad-reported and director-perceived measures retain most items, but the director-perceived item pools show larger reductions, especially in systematic and collaborative strategizing. The final scales retain the theory-specified three-dimension organization, while substantive item evaluation narrows some scales where items provide weaker diagnostic or conceptual support.

Table 10.3 reports the lower-loading items that required substantive evaluation. It does not report all items in the final scales. It reports only the items with loadings below .50 and shows how many of these were retained or excluded after evaluation. The relationship between the two tables can be illustrated by the dyad-reported systematic scale. Table 10.2 reports that 19 of 22 items were retained. Table 10.3 reports that four items had loadings below .50; one of these was retained, and three were excluded. The remaining 18 items met the loading criterion and were retained directly. The final scale therefore contains 18 items retained through the loading criterion and one lower-loading item retained after substantive evaluation.

Table 10.3: Substantive evaluation of items with loadings below .50

Measure	Systematic strategizing	Coordinated strategizing	Collaborative strategizing
Strategic readiness reported by the dyad	4 evaluated. 1 retained and 3 excluded	6 evaluated. 5 retained and 1 excluded	8 evaluated. 5 retained and 3 excluded
Strategic readiness perceived by directors	10 evaluated. 4 retained and 6 excluded	7 evaluated. 4 retained and 3 excluded	12 evaluated. 4 retained and 8 excluded
Strategic readiness perceived by city councilors	No items evaluated. All items met the loading criterion.	No items evaluated. All items met the loading criterion.	No items evaluated. All items met the loading criterion.

Note: The table reports only items with factor loadings below .50. Items with loadings of .50 or higher are not included in this table because they were retained through the loading criterion when their wording was consistent with the dimension. The final number of items in each dimension scale is therefore calculated as items retained through the loading criterion plus lower-loading items retained after substantive item evaluation.

The evaluation was most extensive for strategic readiness perceived by directors. Strategic readiness reported by the dyad also required evaluation, but fewer items were excluded. Strategic readiness perceived by city councilors did not require substantive evaluation because all items met the loading criterion.

The numbers in Table 10.3 do not show the decision logic behind individual items. Table 10.4 gives selected examples of the substantive item evaluation. The examples are organized by dimension because the central question is whether each item contributes to measuring systematic, coordinated, or collaborative strategizing. Items are retained when they contribute to the intended dimension and are distinct from adjacent conditions. Items are excluded when they primarily measure adjacent conditions, such as general idea culture, broad receptivity to new ideas, or retrospective evaluation.

The selected examples show how the evaluation protects the content of the dimension scales. Some lower-loading items are included because they capture theoretically central forms of strategizing that stronger items do not cover. Other items are excluded because they move away from enacted strategizing and instead capture adjacent conditions, such as general idea culture, broad receptivity to new ideas, or retrospective evaluation.

Table 10.4: Selected examples from the substantive item evaluation by dimension

Dimension	Measure	Item focus and QID	Loading	Decision	Evaluation
Systematic strategizing	Strategic readiness reported by the dyad	Planning strategic tasks with the city council, Q68	0.473	Included after evaluation	The item captures forward-looking planning and structured political involvement. It adds coverage of how the dyad organizes strategic work with the city council.
Systematic strategizing	Strategic readiness reported by the dyad	Systematic evaluations of strategic work with the city council, Q65	0.325	Excluded after evaluation	The item is more retrospective than the core systematic items. It moves away from ongoing structuring, planning, and carrying strategic work forward.
Systematic strategizing	Strategic readiness perceived by directors	Setting goals for strategic work, Q99	0.462	Included after evaluation	The item captures a central part of systematic strategizing. It measures goal setting as a directional and structuring activity.
Systematic strategizing	Strategic readiness perceived by directors	Culture that rewards new ideas, Q169	0.286	Excluded after evaluation	The item measures an enabling organizational condition. It does not directly measure enacted systematic strategizing by the dyad.
Coordinated strategizing	Strategic readiness reported by the dyad	Reflecting on how the organization is talked about, Q28	0.276	Included after evaluation	The item captures coordination of shared understandings and language. It adds coverage of how the dyad aligns interpretation, not only tasks and responsibilities.
Coordinated strategizing	Strategic readiness perceived by directors	Division of responsibility in external settings, Q107	0.421	Included after evaluation	The item captures coordinated outward alignment. It measures how the dyad divides strategic responsibility across external arenas.

Collaborative strategizing	Strategic readiness reported by the dyad	Directors as a source of inspiration for new solutions, Q45	0.284	Excluded after evaluation	The item measures inspiration uptake. It does not sufficiently capture collaborative strategizing as joint development or shared exploration.
Collaborative strategizing	Strategic readiness perceived by directors	Dialogues about new opportunities for the municipality, Q115	0.300	Included after evaluation	The item captures possibility development. It is one of the clearest lower-loading indicators of collaborative strategizing in the director-perceived measure.
Collaborative strategizing	Strategic readiness perceived by directors	Employees can bring new ideas to directors, Q166	0.103	Excluded after evaluation	The item measures an enabling access condition in the organization. It does not directly measure collaborative strategizing by the dyad.

Note: The table illustrates selected evaluation decisions for items with factor loadings below .50. It is organized by dimension to show how the evaluation protects the conceptual boundary of each scale. The QID-level decision basis is provided in the public online appendix. Appendix A10 reports the reviewed lower-loading items.

Internal consistency was also examined for the final dimension scales. Table 10.5 reports Cronbach's alpha for each final dimension scale at each measurement wave and for the pooled response records, together with McDonald's omega and the mean inter-item correlation. Wave-specific alpha ranges from .854 to .939. Pooled alpha ranges from .866 to .936, and pooled omega ranges from .867 to .938. These coefficients indicate substantial internal consistency.

Because alpha is affected by both inter-item association and the number of items, the mean inter-item correlation is also reported. It ranges from .267 to .424 for the dyad-reported and director-perceived scales and from .519 to .535 for the shorter city councilor-perceived scales. The higher values for the city councilor-perceived scales indicate more homogeneous item content. They should be interpreted together with the substantive coverage of each scale and do not by themselves establish the absence of item redundancy.

Table 10.5: Cronbach's alpha for each final dimension scale at each measurement wave and for the pooled response records

Measure	Dimension	Items	α before	α after	α pooled	ω pooled	Mean inter- item r
Strategic readiness reported by the dyad	Systematic	19	.926	.937	.934	.935	.424
Strategic readiness reported by the dyad	Coordinated	27	.897	.911	.904	.909	.267
Strategic readiness reported by the dyad	Collaborative	22	.864	.915	.893	.900	.287
Strategic readiness perceived by directors	Systematic	16	.926	.885	.907	.907	.371
Strategic readiness perceived by directors	Coordinated	25	.939	.930	.936	.938	.369
Strategic readiness perceived by directors	Collaborative	17	.889	.858	.876	.877	.288
Strategic readiness perceived by city councilors	Systematic	7	.899	.874	.890	.892	.535
Strategic readiness perceived by city councilors	Coordinated	6	.874	.854	.866	.867	.519
Strategic readiness perceived by city councilors	Collaborative	9	.907	.906	.906	.907	.520

Note. Reliability is calculated on the final dimension scales after item retention. Alpha and omega for the pooled records are calculated across the before and after measurement records jointly. The mean inter-item correlation is the average Pearson correlation between all item pairs within the scale.

The four tables establish the final dimension scales used in the analysis. Strategic readiness reported by the dyad is measured with 19 systematic items, 27 coordinated items, and 22 collaborative items. Strategic readiness perceived by directors is measured with 16 systematic items, 25 coordinated items, and 17 collaborative items. Strategic readiness perceived by city councilors is measured with seven systematic items, six coordinated items, and nine collaborative items.

10.4 From item answers to dimension scale and overall indices

The scale and index construction translates questionnaire answers into the numerical values used in the comparative and role-based analyses. The main calculation proceeds from item answers to respondent-level dimension values, from respondent-level dimension values to municipality-level dimension values, and from the three municipality-level dimension values to an overall strategic-readiness index. A parallel respondent-level overall index is retained for the role-based analysis in Chapter 13.

For each respondent, measurement point, respondent-specific measure, and dimension, the respondent-level dimension value is calculated as the mean of the available answers to the retained items in systematic, coordinated, or collaborative strategizing. A value is calculated when at least one retained item in the relevant dimension has an answer on the 1–5 scale; otherwise, the dimension value is recorded as missing.

The municipality-level dimension value is then calculated as the mean of the respondent-level dimension values within the same respondent-specific measure, municipality identifier, measurement point, and dimension. For example, the director-perceived systematic value before training in one municipality is calculated by averaging the systematic dimension values of the responding directors in that municipality. The same procedure is applied to the city councilor-perceived measure. For the dyad-reported measure, the mayor's and the municipal CEO's separate dimension values are averaged within municipality and measurement point. This produces a municipality-level measure based on reports from positions within the strategic dyad; it does not treat the dyad as one collective questionnaire respondent. Role information and respondent-level values are retained for the role-based analysis in Chapter 13.

This aggregation follows the comparative design. Questionnaire answers are provided by individual respondents, while assignment, aggregation, and comparison take place at the municipality level. Each municipality therefore receives one value for each respondent-specific measure, dimension, and measurement point. The aggregation is not interpreted as evidence of agreement among respondents within a municipality.

Coverage information is retained throughout the construction. At the respondent level, the data record the number and proportion of retained items answered within each dimension. At the municipality level, the data record how many respondents contribute to each dimension value. Appendix A10 documents the corresponding score and coverage outputs.

For the main comparative analysis, the municipality-level overall index is calculated as the equal-weighted mean of the systematic, coordinated, and collaborative municipality-level dimension values within the same respondent-specific measure, municipality, and measurement point. All three dimension values must be available; otherwise, the overall index is recorded as missing. Equal weighting

follows the conceptual specification set out in Section 10.1 and prevents differences in item-pool length from affecting the contribution of the dimensions.

For the role-based supplementary analysis, a respondent-level overall index is calculated as the mean of the respondent's systematic, coordinated, and collaborative dimension values when all three are available. This makes it possible to examine the dyad-reported measure separately for mayors and municipal CEOs without changing the construction of the primary municipality-level measure.

Table 10.6 summarizes the four calculation objects and their analytical roles. The same calculation procedure is applied separately to strategic readiness reported by the dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. The three measures are not combined.

Because the primary score-construction rule permits a respondent-level dimension value when at least one retained item is answered, a supplementary sensitivity check examined whether the comparative results depended on this permissive item-coverage rule. The sensitivity check required responses to at least half of the retained items in each dimension. Under this alternative rule, the dyad-reported estimate was unchanged at 0.13, the director-perceived estimate remained positive but was reduced from 0.41 to 0.32, and the city councilor-perceived estimate remained negative and changed from -0.24 to -0.26 . The direction of all nine dimension-specific estimates remained unchanged. The main directional conclusions are therefore not produced by the permissive item-coverage rule, although the magnitude of the director-perceived estimate is sensitive to it. The primary analyses retain the score-construction rule specified above, while the supplementary check qualifies the interpretation of its consequences.

Table 10.6: From questionnaire answers to the measures used in the comparative analysis

Calculation step	What the calculation uses	How the value is calculated	Role in the analysis
Respondent-level dimension value	Item answers on the 1 to 5 scale within one final dimension scale	Mean of the respondent's item answers within systematic, coordinated, or collaborative strategizing	Intermediate calculation step and coverage documentation
Municipality-level dimension value	Respondent-level dimension values within respondent group, municipality identifier, measurement point, and dimension	Mean of respondent-level dimension values within the same respondent group, municipality identifier, measurement point, and dimension	Used in the dimension-specific comparative analysis
Respondent-level overall index	Respondent-level values for systematic, coordinated, and collaborative strategizing	Mean of the three respondent-level dimension values when all three have been calculated	Used for role-based supplementary analysis.
Municipality-level overall index	Dimension scale values for systematic, coordinated, and collaborative strategizing within the same measure, municipality identifier, and measurement point	Mean of the three dimension scale values when systematic, coordinated, and collaborative values have all been calculated	Main measure used in overall analysis.

Note: The municipality identifier is defined in Chapter 8. In this table, it refers to the grouping variable used to average answers within the same respondent group and measurement point. The three measures remain separate throughout the calculation. They are strategic readiness reported by the dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. Coverage information is reported in Appendix A10.

10.5 Baseline for constructed overall indices

Before the comparative analysis begins, the three overall indices are inspected at the before training measurement. The purpose is to establish where the constructed indices fall on the original 1-to-5 agreement scale and whether they exhibit variation before entering the training/no-training comparison.

Table 10.7 reports the baseline of the three overall indices. The first column identifies the respondent-specific measure. The second column reports the number of municipalities for which an overall baseline index could be calculated. An overall baseline index is available when systematic, coordinated, and collaborative scale values have all been calculated for the same respondent-specific measure, municipality identifier, and before measurement.

The next two columns report the lowest and highest observed baseline values. These columns show where each index is located on the 1-to-5 response scale before the comparative analysis begins. The mean reports the average baseline level for each respondent-specific measure. The final column reports the observed span, calculated as the difference between the highest and lowest observed baseline value. The observed span shows how far the available municipality-level baseline values extend across the response scale.

Table 10.7: Baseline of the three overall indices

Measure	Municipalities with baseline index	Lowest observed value	Highest observed value	Mean	Observed span
Strategic readiness reported by the dyad	12	3.55	4.87	4.01	1.32
Strategic readiness perceived by directors	10	3.23	4.60	3.82	1.36
Strategic readiness perceived by city councilors	11	2.50	3.88	3.36	1.38

Note: The table reports municipality-level overall index values at the before measurement. The number of municipalities with baseline index values does not refer to individual respondents. An overall index is calculated when systematic, coordinated, and collaborative scale values are all available for the same respondent-specific measure, municipality identifier, and measurement point. Mean and observed span are calculated from the municipality-level baseline index values. Values are rounded to two decimals.

The table presents three results relevant to the comparative analysis. First, all three indices exhibit variation before the measurement. The observed spans are similar across the three measures. Strategic readiness reported by the dyad spans 1.32 scale points, strategic readiness perceived by directors spans 1.36 scale points, and strategic readiness perceived by city councilors spans 1.38 scale points. The indices do not, therefore, collapse into one narrow position on the response scale.

Second, the mean values show that the three indices begin from different positions. Strategic readiness reported by the dyad has the highest baseline mean, at 4.01, and ranks high on the scale, with observed values between 3.55 and 4.87. Strategic readiness as perceived by directors, is also placed in the upper part of the scale, with a mean of 3.82 and observed values ranging from 3.23 to 4.60. Strategic readiness perceived by city councilors starts at a lower level, with a

mean of 3.36 and observed values ranging from 2.50 to 3.88. The three measures therefore have different baseline positions before the comparison of change begins.

Third, the baseline inspection informs the interpretation of variation and available upward scale range within each measure. Because the respondent positions and item pools differ, the numerical baseline levels are not interpreted as directly comparable estimates on one common observed metric. Within each measure, however, the baseline placement shows the starting point and the remaining upward and downward range available for the subsequent analysis of change. Dyad-reported and director-perceived strategic readiness begins at the upper end of the scale, while city councilor-perceived strategic readiness begins at a lower baseline. The interpretation of subsequent change is informed by these starting points. Positive change in measures with higher baseline placement occurs within a more restricted upward scale range, whereas the lower baseline placement of the city councilor-perceived measure leaves a larger upward scale range available.

The three overall indices provide the measures used first in the comparative analysis. The nine dimension scales are documented in Appendix A10 and used in Chapter 12, where the comparative analysis is repeated for systematic, coordinated, and collaborative strategizing.

10.6 Summary of the measurement construction

Chapter 10 constructs the empirical measures used in the comparative analysis. The measurement follows the conceptual structure of strategic readiness. Each respondent-specific measure is constructed through systematic, coordinated, and collaborative dimension scales, and each overall index is calculated as the equal-weighted mean of these three dimension scales.

Appendix A10 and the public online appendix document the measurement construction, including the diagnostic output, item-retention decisions, final item pools, and score output structure used in the subsequent comparative analyses.

The construction combines theoretical specification, factor-analytic diagnostics, substantive item evaluation, and scale construction. The item pools presented in Chapter 9 provide the starting material. The diagnostics examine common response patterns within each respondent-specific dimension pool. The substantive item evaluation preserves the link between the item's wording and the dimension it represents. The final scales then provide the basis for the three overall indices.

Part 3. Empirical analysis of change in strategic readiness

Part 3 presents the empirical analyses of change in strategic readiness. The research design in Chapter 6 specified the causal claim as comparative and bounded. The analyses therefore estimate training/no-training differences in change rather than final levels alone. The estimates are interpreted as design-based comparative evidence from a small elite-level municipal field. This gives the analysis inferential leverage, while the interpretation remains conditioned by the assumptions of the comparative design, the limited number of participating municipalities, field access, respondent composition, local developments, and implementation variation.

The analyses follow the comparative design logic developed in Chapter 6. Leadership training is the independent variable, and strategic readiness is the dependent variable. The empirical comparison concerns the change from before to after the training in municipalities assigned to leadership training and municipalities assigned to no-training. The relevant comparison is therefore a training/no-training difference in change.

The empirical analyses examine one systematized concept of strategic readiness through three respondent-specific measures: Strategic readiness reported by the strategic dyad captures the dyad's own report of its strategizing, strategic readiness perceived by directors captures perceptions from the administrative position, and strategic readiness perceived by city councilors captures perceptions from politicians in the elected municipal council. Chapter 10 constructed one measure for each respondent position, and Part 3 estimates training/no-training differences in change for these measures.

Chapter 11 provides the main hypothesis evaluation through the three overall indices. Chapter 12 breaks down the overall comparison into the three dimensions of strategic readiness. Chapter 13 presents a role-based analysis within the dyad and a descriptive item-level analysis. The role-based analysis provides the final specification needed before evaluating H1, while the item-level analysis qualifies the dimension-scale results.

Terminology in Part 3

Part 3 uses the term “estimate” to refer to the estimated training/no-training difference in change. Change is calculated as the after value minus the before value. The estimated training/no-training difference in change is calculated as the mean change in municipalities assigned to leadership training minus the mean change in municipalities assigned to no-training. The estimates are calculated at the municipality level and are interpreted as design-based comparative evidence from the participating municipalities. They are not interpreted as population-average effects, and final levels are not interpreted independently of baseline values.

The three respondent-specific measures remain separate throughout the analysis: strategic readiness reported by the dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. Overall indices provide the primary basis for evaluating the preregistered hypotheses. Dimension scale analyses and item-level analyses are used to investigate the overall index patterns.

11. Comparative analysis of change in the three overall indices

This chapter estimates training/no-training differences in change for the three overall indices, separately for each of the three respondent-specific measures. Strategic readiness reported by the dyad is based on dyad answers. Strategic readiness perceived by directors is based on the directors' answers. Strategic readiness perceived by city councilors is based on the city councilors' answers. The three measures are respondent-specific operationalizations of one systematized concept of strategic readiness and remain separate throughout the analysis.

The chapter establishes the overall index pattern through three analytical processes. The first is the group-level training/no-training difference in change. The second is the municipality-level distribution of changes. The third is the stratified analysis using the municipal size strata built into the design. Together, these analyses provide the basis for the respondent-specific interpretation that follows.

11.1 Overview of change in the three overall indices

Table 11.1 and Figure 11.1 report the before and after values for the training and no-training groups, the change within each group, and the estimated training/no-training difference in change. In addition, Table 11.1 also reports mean levels.

All three comparisons begin with observable baseline differences between the training and no-training groups. In each measure, the group with the lower baseline level subsequently changes more positively. The difference-in-change estimates may reflect training-related change, but in this small design their realized magnitudes may also be influenced by chance baseline imbalance, available scale range, measurement variation, and regression toward the mean. The estimates are therefore interpreted as observed training/no-training differences in change within the designed comparison rather than as precise population-level effects.

For strategic readiness reported by the dyad, the level increases in both groups, with the training group showing the largest increase. The no-training group increases from 4.21 to 4.32, while the training group increases from 3.81 to 4.06. The estimated training/no-training difference in change is 0.13.

For strategic readiness perceived by directors, the contrast is larger. The no-training group declines from 3.98 to 3.80, while the training group increases from 3.58 to 3.82. The estimated training/no-training difference in change is 0.41. This is the largest positive estimate in the table and the figure.

For strategic readiness perceived by city councilors, the estimate moves in the opposite direction of the preregistered expectation. The no-training group

increases slightly from 3.12 to 3.15, while the training group declines from 3.56 to 3.35. The estimated training/no-training difference in change is -0.24 .

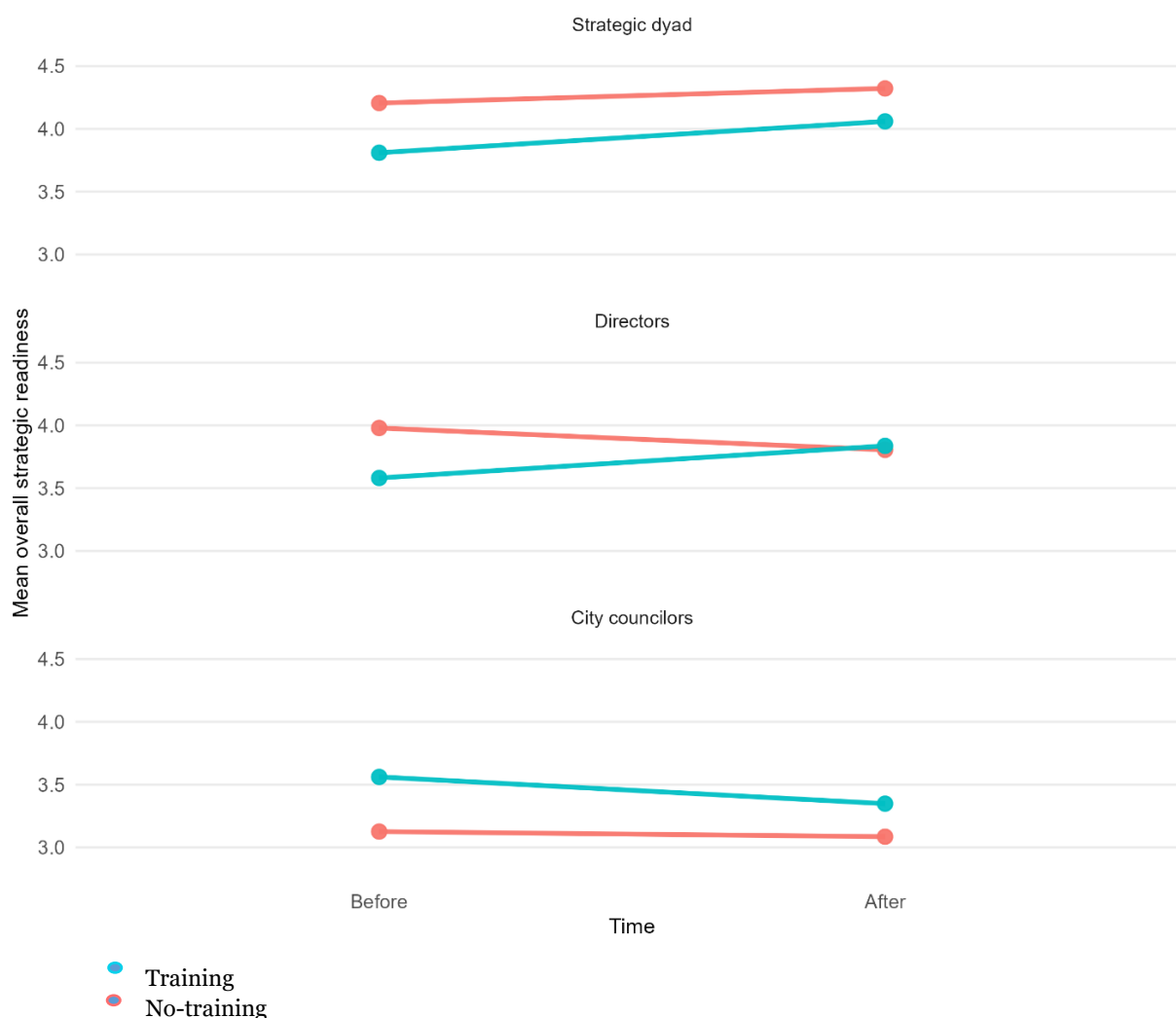
Table 11.1: Change in the three overall indices

Measure	No-training before	No-training after	No-training change	Training before	Training after	Training change	Estimated training/no-training difference in change
Strategic readiness reported by the dyad	4.21	4.32	0.12	3.81	4.06	0.25	0.13
Strategic readiness perceived by directors	3.98	3.80	-0.17	3.58	3.82	0.24	0.41
Strategic readiness perceived by city councilors	3.12	3.15	0.03	3.56	3.35	-0.21	-0.24

Note: The table reports group means based on municipality-level overall index values on the 1–5 scale. Only municipalities for which the relevant overall index is available at both measurement points are included; the same municipalities therefore enter the before value, the after value, and the change calculation. Municipalities receive equal weight. The numbers of contributing municipalities, reported as no-training/training, are 6/6 for the dyad-reported measure, 6/4 for the director-perceived measure, and 5/6 for the city councilor-perceived measure. All municipalities with an available baseline index also have an available after index; the omitted municipalities lack a baseline index rather than dropping out after baseline. Change is calculated as after minus before, and the estimated training/no-training difference in change is calculated as training-group mean change minus no-training-group mean change. Values are displayed rounded to two decimals, while changes and estimates are calculated from unrounded values. The measures are constructed as described in Chapter 10. For the dyad-reported measure, one training municipality's baseline value is based on the municipal CEO's response because the mayor's baseline response is unavailable.

The overview gives one main pattern for the following analysis. The estimates for strategic readiness reported by the dyad and for strategic readiness perceived by directors change in directions consistent with H1 and H2. The estimate for strategic readiness perceived by city councilors changes in the opposite direction.

Figure 11.1: Change in the three overall indices



Note: The y-axis is zoomed to the observed range. Index values are measured on the 1–5 overall strategic readiness index.

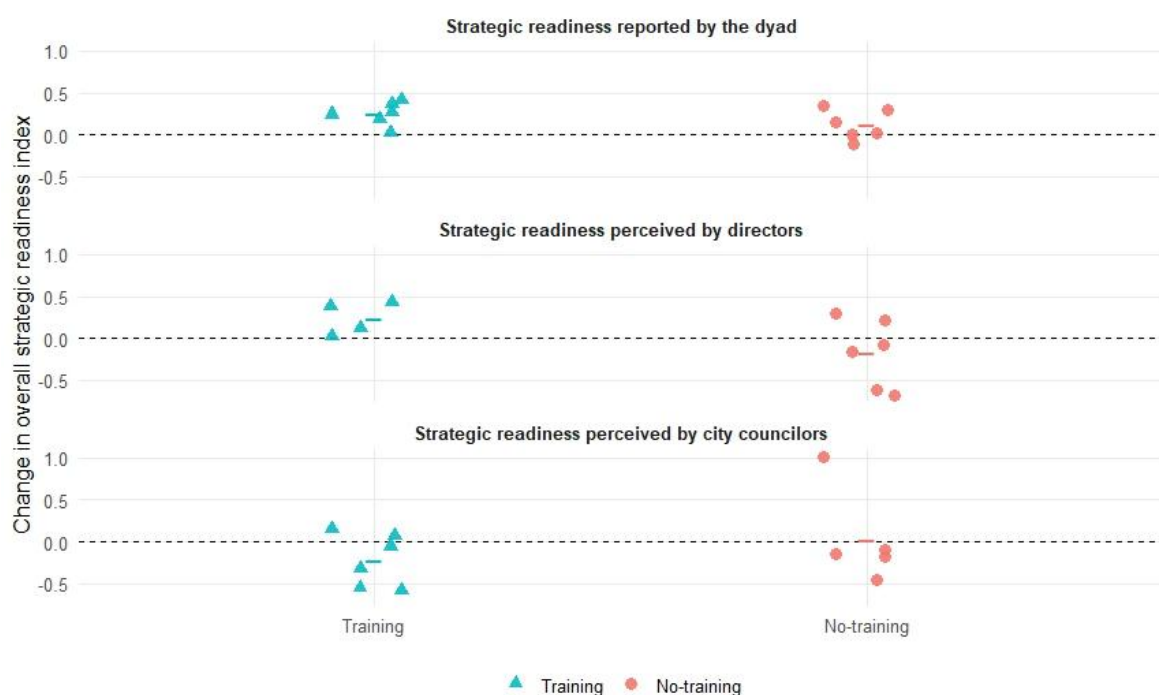
Figure 11.2 adds the municipality-level distribution behind these estimates. Each point represents one municipality-level change value where both before and after index values are available. The figure shows the distribution of change within the small comparative design. For strategic readiness reported by the dyad, all six training municipalities are located above zero, indicating positive change in the dyad-reported overall index. Five of six no-training municipalities are also located above zero, which shows that positive change is not limited to the training group. Nevertheless, the training group is positioned higher overall. This supports H1 in the expected direction at the overall index level, while the estimated difference remains moderate.

The director-perceived index shows the clearest difference between training and no-training municipalities. All four training municipalities with usable values are located above zero, while four of six no-training municipalities are located below zero. The positive training/no-training difference in change is reflected not

only in the aggregate estimate, but also in the distribution of municipality-level changes.

The city councilor-perceived index shows a different pattern. Most municipalities in both groups are located below zero, with four of six training municipalities and four of five no-training municipalities showing negative change. One no-training municipality is located well above the rest of the distribution. The index, therefore, changes in the opposite direction to the preregistered expectation. In addition, the city councilor-perceived estimate is highly sensitive to one no-training municipality. Four of the five contributing no-training municipalities show negative change, while one municipality shows an increase of approximately one index point. Excluding that municipality changes the overall training/no-training difference in change from -0.24 to approximately zero. The main estimate therefore changes in the opposite direction of H3, but its magnitude and negative direction are not stable to the exclusion of this single influential municipality.

Figure 11.2: Municipality-level change in the three overall strategic readiness indices



Note: Each point represents one municipality-level change value where both before and after index values are available. The larger horizontal mark indicates the group mean. Values above zero indicate positive change from before to after. Values below zero indicate negative change. Municipalities are not labelled, and the figure is used to show the distribution of municipality-level changes rather than to interpret individual municipalities. The municipality-level values underlying Figure 11.2 are not reported in the printed or public online appendix because the analysis is conducted in a small elite-level municipal field.

The overall estimates can also be analyzed within the municipal size strata built into the research design. The stratified analysis locates the overall training/no-training differences in change within the size-based design structure. It provides a descriptive indication of whether the overall patterns are repeated across strata or concentrated in particular parts of the design.

Table 11.2 adds three qualifications to the overall pattern. For strategic readiness reported by the dyad, the estimate changes in the expected direction in stratum A and stratum B, while stratum C changes in the opposite direction. The stratum C comparison rests on one municipality identifier in each group, so the main dyad-reported pattern is positive in the two strata with the larger number of contributing municipalities but is moderated by the largest-municipality stratum.

For strategic readiness perceived by directors, the estimates change in the expected direction across all three strata. This gives the director-perceived result the clearest design-based consistency in the chapter. The size of the Stratum C estimate reflects a comparison based on one municipality identifier in each group. The direction across strata is therefore more informative than the magnitude of the Stratum C estimate on its own.

For strategic readiness perceived by city councilors, the stratified pattern is more uneven. The estimate changes in the expected direction in strata A and C, but strongly in the opposite direction in Stratum B. The overall negative city councilor-perceived estimate is, therefore, particularly associated with Stratum B. This means that the city councilor-perceived result is not uniformly negative across the strata built into the design.

This pattern gives a design-based qualification of the overall estimate rather than evidence of a separate size effect. The Stratum B estimate is based on a small number of municipalities and responses from city councilors within those municipalities. It may, therefore, reflect conditions in the specific participating municipalities, local political developments during the study period, respondent composition, or random variation within the stratum. The analysis can locate the overall negative estimate within the size-based design structure, but it cannot establish that medium-sized municipalities, as such, are the reason for the negative city councilor-perceived result. The robust implication is therefore more limited: The overall city councilor-perceived result is uneven across strata and is especially driven by the Stratum B comparison.

Table 11.2: Estimated training/no-training differences in change within strata

Measure	Stratum A	Stratum B	Stratum C
Strategic readiness reported by the dyad	0.16 [3/3]	0.22 [2/2]	−0.12 [1/1]
Strategic readiness perceived by directors	0.18 [3/1]	0.19 [2/2]	1.13 [1/1]
Strategic readiness perceived by city councilors	0.15 [2/3]	−0.91 [2/2]	0.25 [1/1]

Note: Each cell reports the estimated training/no-training difference in change within the relevant stratum. The estimate is calculated as training group change minus no-training group change. Numbers in brackets report municipality identifiers contributing to the change calculation, first for no-training and then for training. A municipality identifier contributes when the relevant overall index has been calculated at both measurement points. Values are rounded to two decimals. Appendix A11 summarizes the aggregate and stratified direction pattern without reproducing condition-specific before, after, or change values.

Taken together, Table 11.1, Figure 11.1, Table 11.2 and figure 11.2 establish the main overall index pattern. Leadership training is associated with more positive change in strategic readiness reported by the dyad and strategic readiness perceived by directors. The pattern is strongest and most consistent for directors, more moderate for the dyad, and reversed for city councilors at the overall index level. The stratified reading adds that the director-perceived pattern is repeated across all strata, the dyad-reported pattern is positive in stratum A and stratum B, and the city councilor-perceived opposite direction estimate is especially connected to stratum B. The following sections interpret the three respondent-specific measures separately.

11.2 Strategic readiness reported by the strategic dyad

Leadership training was directed at the mayor and the municipal CEO as one strategic dyad, and the dyad-reported index is constructed from their own answers about their systematic, coordinated, and collaborative strategizing.

Table 11.1 shows a positive estimated training/no-training difference in change of 0.13. The training group increases from 3.81 to 4.06, corresponding to a change of 0.25. The no-training group also increases from 4.21 to 4.32, a change of 0.12. The estimate indicates that the dyad-reported index moves in the expected direction, but that the difference is moderate.

The baseline level also matters for the interpretation. The initial dyad-reported strategic readiness was placed in the upper part of the 1-to-5 scale before the training sequence. The no-training group starts particularly high at 4.21, while the training group starts at 3.81. This gives the training group somewhat more upward space, but both groups begin above the scale midpoint. The positive estimate should therefore be read as a moderate difference in change in an index that already has a relatively high baseline placement.

Figure 11.2 adds the municipality-level distribution behind the estimate. Most training municipalities are located above zero, which indicates positive dyad-reported change. Several no-training municipalities are also located close to or above zero. The figure therefore supports the same interpretation as Table 11.1. The dyad-reported result moves in the expected direction, but the pattern is not exclusive to the training group.

The result provides empirical support for H1 at the overall index level. Leadership training tends to be associated with more positive change in strategic readiness reported by the strategic dyad than no-training. The support is moderate, and the interpretation remains bounded by the comparative design. At this point in the analysis, the result concerns the overall dyad-reported index. The dimension-specific and role-based analyses later show how this positive dyad-reported pattern is distributed across dimensions and across the two roles in the strategic dyad.

The positive estimate should therefore be read as an observed difference in change from unequal baseline positions. The training group had more upward scale range, but the analysis does not establish the extent to which baseline placement contributed to the subsequent difference.

11.3 Strategic readiness perceived by the directors

Table 11.1 shows a positive estimated training/no-training difference in change of 0.41. The training group increases from 3.58 to 3.82, corresponding to a change of 0.24. The no-training group declines from 3.98 to 3.80, corresponding to a change of -0.17. The positive estimate is, therefore, produced by movement in both groups. Director-perceived strategic readiness increases in the training group and decreases in the no-training group.

The baseline placement also matters for interpretation. The no-training group starts higher than the training group, with a before value of 3.98 compared with 3.58 in the training group. After the training sequence, the two groups are at nearly the same level, with 3.80 in the no-training group and 3.82 in the training group. The estimated difference in change reflects a convergence in final levels produced by opposite changes over time. The training group increases, while the no-training group decreases.

Figure 11.2 supports this interpretation at municipality level. Training municipalities are primarily located above zero, while no-training municipalities are more dispersed and include several negative changes. The director-perceived result is therefore not only reflected in the group-level estimate but also in the distribution of municipality-level change values, with training municipalities generally showing more positive change.

The director-perceived estimate is consistent with H2 and constitutes the clearest positive overall-index pattern among the three respondent-specific measures. The result is based on six no-training municipalities and four training

municipalities and is interpreted as directional comparative evidence within the participating municipalities rather than as a precise estimate of a general population effect.

11.4 Strategic readiness perceived by the city councilors

Table 11.1 shows an estimated training/no-training difference in change of -0.24 . The no-training group increases slightly from 3.12 to 3.15, corresponding to a change of 0.03. The training group declines from 3.56 to 3.35, corresponding to a change of -0.21 . The estimate therefore moves in the opposite direction of the preregistered expectation.

The result is analytically central because it differs from both the dyad-reported and director-perceived patterns. For H1 and H2, the training group shows greater improvement than the no-training group. For H3, the two group means differ in sign: the no-training group changes slightly upward, while the training group changes downward.

The baseline and final levels require careful interpretation. City councilors in municipalities where the dyad received leadership training started with a higher perceived level of strategic readiness than city councilors in no-training municipalities. The before value is 3.56 in the training group and 3.12 in the no-training group. After the training sequence, the training group still has a higher level, with 3.35 compared with 3.15 in the no-training group. The negative estimate is therefore a change-based result. It does not mean that city councilors in training municipalities rate the dyad lower in absolute terms, however, it does mean that the training group loses part of its initial advantage, while the no-training group changes slightly upward.

Substantively, the result indicates that the city councilor-perceived measure did not show more positive municipality-level change in training municipalities than in no-training municipalities during the observed period. The municipality-level city councilor mean remained higher in training municipalities at both measurement points, but the mean was lower after than before. The city councilor-perceived estimate therefore captures a decline from a higher baseline rather than a lower final level.

Figure 11.2 supports this interpretation at municipality level. Most municipalities in both groups are located below zero. The figure shows that the negative estimate is connected to movement in both groups. It reflects downward movement in four of six training municipalities, downward movement in four of five no-training municipalities, and upward movement of more than one index point in a single no-training municipality.

H3 is, therefore, not supported at the overall index level. The city councilor-perceived result indicates a negative training/no-training difference in change within the comparative design. This result is not interpreted as evidence that leadership training cannot matter for this respondent group. It shows that during

the observed period and within this design, training for the mayor and the municipal CEO is not associated with more positive change in strategic readiness as perceived by city councilors. It does, however, indicate that changes associated with leadership training are not perceived uniformly across respondent positions. This strengthens the need to keep the three respondent-specific measures separate and highlights the relevance for the later dimension-specific analysis of whether the negative city councilor-perceived pattern is distributed across systematic, coordinated, and collaborative strategizing.

11.5 Stratified analysis of change in the three overall indices

The overall estimates can also be analyzed using the municipal size strata built into the research design. The strata were introduced because municipal size may shape executive workload, organizational complexity, baseline strategic readiness, political-administrative interaction, and the conditions under which leadership training unfolds.

Table 11.2 reports the estimated training/no-training difference in change within each stratum. Each cell reports the difference between training group change and no-training group change for the relevant respondent-specific measure and stratum. Positive values indicate a more positive change in the training group. Negative values indicate a more positive change in the no-training group. The numbers in brackets report the number of municipality identifiers contributing to the change calculation, first for the no-training group and then for the training group. The underlying no-training and training change values are reported in Appendix A11.

For strategic readiness reported by the dyad, the stratified pattern mainly follows the overall interpretation. The estimate is positive in stratum A and stratum B, while stratum C moves in the opposite direction. However, the comparison in this stratum rests on one municipality identifier in each group. The dyad-reported pattern is therefore positive in the two strata with the larger number of contributing municipalities, while the largest municipality stratum qualifies the uniformity of the overall pattern.

The stratified analysis contributes by situating the overall estimates within the size-based design structure. Strategic readiness reported by the dyad changes in the expected direction in stratum A and stratum B, while stratum C qualifies the pattern. Strategic readiness perceived by directors changes in the expected direction across all three strata, providing the clearest design-based consistency and robustness reading. Strategic readiness perceived by city councilors shows the most uneven pattern, with an overall negative estimate particularly associated with Stratum B.

The stratum-level estimates increase transparency in the comparative analysis. They show where the overall estimates are repeated across the design and where they are more concentrated. The positive pattern is strongest and most

consistent in the director respondent measure. The dyad-reported measure follows the expected direction in two strata. The city councilor-perceived measure follows a more context-sensitive pattern across the municipal size structure.

The stratified analysis contributes by broadening the patterns regarding each measure. Strategic readiness reported by the dyad changes in the expected direction in strata A and B, while stratum C moves in a different direction. Strategic readiness perceived by directors changes in the expected direction across all three strata, providing the clearest design-based robustness reading. Strategic readiness perceived by city councilors is more uneven, with the overall negative estimate particularly associated with stratum B.

The contribution is that it uses the design to locate the estimates more precisely. The positive pattern is strongest and most consistent in the director respondent measure. The dyad-reported measure follows the expected direction in two strata. The city councilor-perceived measure follows a different and more context-sensitive pattern.

11.6 Summary of the overall index analysis

The overall index analysis yields four findings for the empirical argument within the designed comparison. First, the dyad-reported measure moves in the expected direction, but the estimate is moderate and is later qualified by the role-specific wording of H1. Second, the director-perceived measure shows the largest positive estimate, the clearest municipality-level separation, and the most consistent direction across strata. Third, the city councilor-perceived measure moves in the opposite direction at the overall index level, with the stratified reading indicating that the negative estimate is especially associated with stratum B. Fourth, the three respondent-specific measures form a differentiated empirical pattern rather than a uniform training/no-training result.

The dyad-reported result is positive but moderate. The training group shows greater improvement than the no-training group, with an estimated training/no-training difference in change of 0.13. The training group begins below the no-training group and remains below it at the final measurement, but it changes more positively over time. The municipality-level distribution supports the same interpretation. Most training municipalities show positive dyad-reported change, while several no-training municipalities are also near or above zero. The stratified reading adds that the dyad-reported estimate changes in the expected direction in strata A and B, while in Stratum C, it changes in the opposite direction, based on a comparison using a single municipality identifier in each group.

The dyad-reported overall index moves in the expected direction. The preregistered wording of H1, however, includes both roles in the strategic dyad. It states that training will increase strategic readiness in the dyad reported by both the mayor and the municipal CEO. The overall dyad-reported index combines the two roles into one municipality-level measure. The role-specific analysis in

Chapter 13 completes the evaluation of whether both the mayor and the municipal CEO contribute to this pattern.

The director-perceived result is the clearest positive finding in the chapter. Strategic readiness perceived by directors has an estimated training/no-training difference in change of 0.41. The training group increases, while the no-training group decreases. The municipality-level distribution shows the same pattern, with training municipalities primarily located above zero and no-training municipalities more dispersed, including several negative changes.

The stratified analysis strengthens this result. The director-perceived estimate moves in the expected direction in all three strata. This makes the director perceived measure the most consistent positive result.

The city councilor-perceived result is the main contrast. Strategic readiness perceived by city councilors has an estimated training/no-training difference in change of -0.24 . The training group declines from before to after, while the no-training group increases slightly. The negative estimate follows from the difference-in-change comparison. The training group remains higher in absolute level at both measurement points, but its index declines from before to after, whereas the no-training group increases slightly.

The municipality-level distribution shows that most municipalities in both groups are located below zero, with four of six training municipalities and four of five no-training municipalities showing negative change, while one no-training municipality is located well above the rest of the distribution. The stratified analysis shows a mixed pattern. The city councilor-perceived estimate moves in the expected direction in strata A and C, but the estimate moves strongly in the opposite direction in Stratum B. The overall negative estimate is therefore particularly associated with stratum B.

The results are interpreted within the comparative and bounded causal position established in the research design. The estimates provide structured comparative evidence of training/no-training differences in change. Their interpretation is shaped by the small number of participating municipalities, respondent composition across measurement points, implementation conditions, and local developments during the study period. These conditions illustrate the strength of the interpretation. Consequently, random variation cannot be ruled out as an explanation of some observed differences.

Table 11.3: Empirical status of the preregistered hypotheses at the overall index level

Hypothesis	Respondent-specific measure	Empirical status at the overall index level
H1	Strategic readiness reported by the dyad	The estimate moves in the expected direction at the dyad-reported overall index level within the designed comparison. The role-specific analysis in Chapter 13 completes the evaluation of whether both the mayor and the CEO contribute to this pattern.
H2	Strategic readiness perceived by directors	The estimate moves in the expected direction and provides the largest positive result at the overall index level within the designed comparison.
H3	Strategic readiness perceived by city councilors	The estimate moves in the opposite direction of the preregistered expectation at the overall index level within the designed comparison.

Note: The table reports the empirical status of the preregistered hypotheses at the level of the three overall indices. H1 is evaluated further in Chapter 13 because the preregistered wording concerns strategic readiness reported by both the mayor and the CEO. Numerical estimates are reported in Tables 11.1 and 11.2. Change is calculated as after minus before, and the estimated training/no-training difference in change is calculated as training group change minus no-training group change.

Chapter 11 establishes the overall-index basis for the remaining empirical analyses. The director-perceived result provides the clearest evidence consistent with the preregistered expectation. The dyad-reported result is also consistent with the expected direction, but the estimate is moderate and H1 requires the role-based specification in Chapter 13. The city councilor-perceived result is not consistent with H3 as it changes in the opposite direction of the preregistered expectation.

12. Dimension-specific comparative analysis

Chapter 12 examines whether the overall index results from Chapter 11 are robust at the dimension scale level. Each respondent-specific overall index is formed from three theory-specified dimension scales: systematic strategizing, coordinated strategizing, and collaborative strategizing. The chapter applies the comparative logic from Chapter 11 to the dimension scales and examines whether the direction of the overall index results is robust across the three dimensions of strategic readiness. This robustness analysis matters because an overall index result can be mainly driven by one dimension scale or remain consistent across the three dimension scales that form the index. Robustness is used here in a restricted descriptive sense. It refers to directional breadth across the three dimension scales or across retained items. It does not constitute an independent validation test, an assessment of statistical uncertainty, or evidence of stability across alternative samples and specifications.

12.1 Overview of change across the nine dimension scales

The analysis follows the same comparative logic as Chapter 11. For each respondent-specific measure and each dimension scale, change is calculated as the after value minus the before value. The change in municipalities assigned to leadership training is then compared with the change in municipalities assigned to no-training. As a result, each estimate in Table 12.1 is a training/no-training difference in change. It is calculated as the training group mean change minus the no-training group mean change.

A positive estimate means that the training municipalities changed more positively than the no-training municipalities on the relevant dimension scale. A negative estimate means that the no-training municipalities changed more positively than the training municipalities.

Table 12.1 gives the dimension-specific results. The dyad-reported dimension scales all have positive estimates. The estimated training/no-training difference in change is 0.20 for systematic strategizing, 0.11 for coordinated strategizing, and 0.09 for collaborative strategizing. This means that dyad-reported strategic readiness changed more positively in training municipalities than in no-training municipalities across all three dimensions. The largest dyad-reported estimate is found in systematic strategizing.

The director-perceived dimension scales also all have positive estimates. The estimated training/no-training difference in change is 0.35 for systematic strategizing, 0.43 for coordinated strategizing, and 0.46 for collaborative strategizing. This means that director-perceived strategic readiness changed more positively in training municipalities than in no-training municipalities across all three

dimensions. The largest director-perceived estimates are found in collaborative and coordinated strategizing.

The city councilor-perceived dimension scale estimates are all negative. The estimated training/no-training difference in change is -0.25 for systematic strategizing, -0.11 for coordinated strategizing, and -0.36 for collaborative strategizing. This means that no-training municipalities changed more positively than training municipalities across all three city councilor-perceived dimension scales. The city councilor-perceived dimension scale results therefore change in the opposite direction of the preregistered expectation. The largest opposite-direction estimate is found in collaborative strategizing.

Table 12.1: Dimension-specific training/no-training differences in change by respondent-specific measure

Dimension scale	Strategic readiness reported by the dyad	Strategic readiness perceived by directors	Strategic readiness perceived by city councilors
Systematic strategizing	0.20	0.35	-0.25
Coordinated strategizing	0.11	0.43	-0.11
Collaborative strategizing	0.09	0.46	-0.36

Note: Each cell reports the estimated training/no-training difference in change for the relevant dimension scale. Change is calculated as after minus before, and the estimate is calculated as training-group mean change minus no-training-group mean change. Only municipalities with valid before and after dimension-scale values are included. The contributing municipality counts, reported as no-training/training, are 6/6 for the dyad-reported scales, 6/4 for the director-perceived scales, and 5/6 for the city councilor-perceived scales. Within each respondent-specific measure, the same municipalities contribute to all three dimension scales. Values are calculated from unrounded scores and displayed rounded to two decimals. For directors and city councilors, change refers to change in municipality-level respondent-group means and should not be interpreted as within-person change in the same individual respondents.

The dimension-scale comparisons begin from unequal baseline positions. Across all nine comparisons, the group with the lower baseline mean subsequently changes more positively. This does not invalidate the difference-in-change calculation, but in the small municipal sample the realized magnitudes may also be influenced by chance baseline imbalance, remaining scale range, measurement variation, and regression toward the mean. The estimates are therefore interpreted as observed dimension specific training/no-training differences in change within the designed comparison.

Table 12.1 reports the dimension scale estimates behind the overall index results from Chapter 11. For strategic readiness reported by the dyad, all three

dimension scale estimates are positive and therefore consistent with the expectation in H1. The same applies to strategic readiness perceived by directors and the expectation in H2. For strategic readiness perceived by city councilors, all three dimension-scale estimates are negative and therefore inconsistent with the expectation in H3.

The underlying before, after, and change values for each dimension-scale comparison are reported in Appendix A12.

The dimension-specific analyses thus show that the overall strategic readiness results are robust across dimensions for all respondent-specific measures.

12.2 Dimension scale robustness of the overall index results

The dimension scale analysis examines whether the overall index results from Chapter 11 are robust across the three theory-specified dimensions of strategic readiness.

In this chapter, robustness refers to consistency in the direction of the estimated training/no-training difference in change across the three theory-specified dimension scales. An overall index result is treated as robust at the dimension-scale level when the dimension scale estimates for systematic, coordinated, and collaborative strategizing point in the same direction as the overall index estimate. Robustness at this level means that the overall index result is not driven by one dimension scale alone.

For strategic readiness reported by the dyad, all three dimension scale estimates are positive. The training municipalities changed more positively than the no-training municipalities on the dyad-reported systematic, coordinated, and collaborative dimension scales. The dyad-reported overall index result from Chapter 11 is therefore robust at the dimension scale level.

The largest dyad-reported estimate is found in systematic strategizing. The coordinated and collaborative dyad-reported estimates are also positive but smaller than the systematic estimate. Taken together, the positive dyad-reported overall index result is robust across all three dimension scales.

For strategic readiness perceived by directors, all three dimension scale estimates are also positive. The training municipalities changed more positively than the no-training municipalities on the director-perceived systematic, coordinated, and collaborative dimension scales. The largest director-perceived estimates are found in collaborative and coordinated strategizing. The director-perceived estimate is the largest positive estimate at the overall index level in Chapter 11, and the direction is positive across all three dimension scales. The director-perceived result is therefore positive at the overall index level and robust across all three dimension scales.

For strategic readiness perceived by city councilors, all three dimension scale estimates are negative. No-training municipalities changed more positively than training municipalities on the city councilor-perceived systematic, coordinated,

and collaborative dimension scales. The city councilor-perceived overall index result from Chapter 11 is therefore robust at the dimension-scale level, but in the opposite direction of the preregistered expectation. The largest opposite-direction estimate is found in collaborative strategizing.

The collaborative dimension scale is central to the comparison between directors and city councilors. It contains the largest positive director-perceived estimate and the largest opposite-direction city councilor-perceived estimate. The contrast concerns two distinct respondent-specific measures. The dimension scale analysis therefore shows that the largest positive and largest opposite-direction estimates are located in the same dimension scale, but in different respondent-specific measures.

Taken together, the overall index results from Chapter 11 are robust across systematic, coordinated, and collaborative strategizing. The dyad-reported and director-perceived results have positive estimates across all three dimension scales. The city councilor-perceived result has negative estimates across all three dimension scales. The largest estimates are located in different dimension scales across the respondent-specific measures. The dyad-reported result is most pronounced in systematic strategizing, whereas the director-perceived result is most pronounced in coordinated and collaborative strategizing. The city councilor-perceived opposite-direction result is also most pronounced in collaborative strategizing.

12.3 Summary of the dimension-specific analysis

This chapter has examined whether the overall index results from Chapter 11 are robust at the dimension scale level. The chapter applies the same comparative logic as Chapter 11 to the three theory-specified dimension scales that form each respondent-specific overall index. Each estimate is an estimated training/no-training difference in change, calculated as the training group mean change minus the no-training group mean change.

The first finding is that the direction of the overall index results is robust across the three dimension scales for all three respondent-specific measures. Strategic readiness reported by the dyad and strategic readiness perceived by directors have positive estimated training/no-training differences in change across systematic, coordinated, and collaborative strategizing. Strategic readiness perceived by city councilors has negative estimated training/no-training differences in change across all three dimension scales. The overall index results from Chapter 11 therefore remain consistent when examined at the dimension scale level.

The second finding is that the largest estimates are found in different dimension scales across the respondent-specific measures. For strategic readiness reported by the dyad, the largest estimate is found in systematic strategizing. This means that the dyad-reported training/no-training difference in change is most pronounced in the dimension scale concerned with recurrence, continuity,

follow-up, and the sustained handling of strategic issues over time. For strategic readiness perceived by directors, the largest estimates are found in collaborative and coordinated strategizing. This means that the director-perceived training/no-training difference in change is most pronounced in the dimension scales concerned with joint development, involvement, alignment, dialogue, coordination, and possible direction. For strategic readiness perceived by city councilors, the largest opposite-direction estimate is found in collaborative strategizing.

The third finding is that the collaborative dimension displays the sharpest descriptive contrast between the director-perceived and city councilor-perceived measures. The largest positive director-perceived estimate and the largest opposite-direction city councilor-perceived estimate are both found in collaborative strategizing. This contrast concerns two distinct respondent-specific measures. It shows that the estimated training/no-training difference in change for collaborative strategizing differs depending on whether strategic readiness is perceived by directors or by city councilors.

Taken together, Chapter 12 shows that the overall index results are robust at the dimension scale level, while the largest estimates differ across respondent-specific measures. The dyad-reported result is most pronounced in systematic strategizing. The director-perceived result is most pronounced in collaborative and coordinated strategizing. The city councilor-perceived result is negative across all three dimension scales and most pronounced in collaborative strategizing. The chapter qualifies the evaluation in Chapter 11 by showing whether the direction of the overall index results is repeated across the three theory-specified dimension scales.

13. Role-based analysis and item-level patterns

Chapter 13 adds two analyses to the overall index and dimension scale results from Chapters 11 and 12. The first analysis is role-based. H1 is formulated as strategic readiness reported by both mayor and municipal CEO. The role-based analysis therefore examines whether the positive dyad-reported overall index result is present for both role positions in the strategic dyad.

The second specification is item-level. Chapter 12 analyzed dimension scale estimates. Chapter 13 examines whether those dimension scale estimates are robust across the retained items included in the final dimension scales. The item-level analysis is descriptive and explores whether the results are robust in terms of the different items that reflect the three dimensions.

13.1 Role-based analysis of strategic readiness reported by the dyad

The role-based analysis examines strategic readiness reported separately by mayors and municipal CEOs. The same comparative logic is used as in Chapters 11 and 12. Change is calculated as the level of strategic readiness after training minus the level of strategic readiness before training. The estimated training/no-training difference in change is calculated as the training group change minus the no-training group change.

Table 13.1 reports the role-based dyad-reported overall index values. For mayors, the estimated training/no-training difference in change is 0.15. For municipal CEOs, it is 0.16. Both estimates are positive. This means that both mayor-reported and municipal CEO-reported strategic readiness changed more positively in training municipalities than in no-training municipalities.

The result is important for the evaluation of H1. H1 states that training of the mayor and the CEO will increase strategic readiness in the dyad “reported by both mayor and CEO”. The overall dyad-reported index in Chapter 11 showed a positive training/no-training difference in change. Table 13.1 adds that this positive dyad-reported direction is present for both role positions in the strategic dyad.

The two role-based estimates are also similar in size. This indicates that the positive dyad-reported pattern is shared across elected and appointed roles within the dyad. The result therefore supports the role-based wording of H1 within the designed comparison. The interpretation remains limited by the small number of role-specific municipality-level values, but the direction of the estimates is consistent with the expectation that both roles contribute to the positive dyad-reported pattern.

Table 13.1: Role-specific dyad-reported strategic readiness within the strategic dyad

Calculation component	Mayor	Municipal CEO
No-training before	4.24	4.17
No-training after	4.44	4.20
No-training change	0.21	0.03
Training before	3.89	3.76
Training after	4.24	3.94
Training change	0.35	0.19
Estimated training/no-training difference in change	0.15	0.16

Note: The table reports role-specific overall index values for strategic readiness reported by the dyad. Only municipalities with valid role-specific before and after overall-index values are included. The mayor comparison includes six no-training and five training municipalities; one training municipality has no paired mayor baseline value. The municipal CEO comparison includes six municipalities in each group. Change is calculated as after minus before, and the estimated training/no-training difference in change is calculated as training-group mean change minus no-training-group mean change. Values are calculated from unrounded scores and displayed rounded to two decimals.

The two role-specific estimates are based on slightly different municipality sets because one training municipality lacks a paired mayor baseline value. When the municipal CEO analysis is restricted to the same municipality set as the mayor analysis, the CEO estimate is 0.15 rather than 0.16. The similar overall estimates are therefore not produced by the additional CEO municipality. In leave-one-municipality-out checks, both role-specific estimates remain positive: approximately 0.05 to 0.27 for mayors and 0.09 to 0.22 for municipal CEOs. The positive overall direction is therefore present and sample-directionally stable for both roles within the available data.

13.2 Item-level direction patterns within the final dimension scales

The item-level analysis examines the retained items included in the final dimension scales. A dimension scale refers to one of the three dimensions of strategic readiness: systematic strategizing, coordinated strategizing, or collaborative strategizing. The retained items are the questionnaire items included in those final dimension scales after factor-analytic diagnostics and substantive item evaluation in Chapter 10.

The analysis uses the same training/no-training difference-in-change logic as the previous chapters. For each retained item, change is calculated as after minus before. The item-level estimate is calculated as training group change minus no-

training group change. A positive item-level estimate means that the item changed more positively in training municipalities than in no-training municipalities. A negative item-level estimate means that no-training municipalities changed more positively than training municipalities on that item.

The item-level analysis is descriptive and explores whether the dimension scale results from Chapter 12 are robust across the retained items used to construct the final dimension scales. A dimension scale result is treated as robust at item level when at least two-thirds of all retained items have non-zero item-level estimates in the same direction as the dimension-scale estimate. Zero estimates are counted among the retained items but do not count as supporting the direction of the estimate. A result is not treated as robust at item level when the item-level estimates are evenly divided or when fewer than two-thirds of the retained items point in the same direction as the dimension scale estimate.

Table 13.2 summarizes the direction of item-level training/no-training differences in change within each final dimension scale. For strategic readiness reported by the dyad, the item-level analysis shows a differentiated pattern. The dyad-reported systematic result is robust at item level. Fourteen of 19 retained items have positive item-level estimates, one item has an estimate of zero, and four items have negative estimates. This indicates that the positive dyad-reported systematic dimension scale result from Chapter 12 is also found across the retained items.

The dyad-reported coordinated result is mainly positive at item level, but it is not robust according to the two-thirds criterion. Seventeen of 27 retained items have positive item-level estimates, two have estimates of zero, and eight have negative estimates. The retained items therefore mostly point in the same direction as the positive dimension scale estimate, but not strongly enough to classify the coordinated result as item-level robust.

The dyad-reported collaborative result is not robust at item level. 11 retained items have positive item-level estimates, and 11 have negative item-level estimates. The median item-level estimate is 0.00, while the mean item-level estimate is slightly positive. The equal split between positive and negative item-level estimates qualifies the positive dyad-reported collaborative dimension scale result from Chapter 12. The result should therefore be interpreted with particular caution.

For strategic readiness perceived by directors, the item-level analysis supports the robustness of the positive dimension scale results. In systematic strategizing, 14 of 16 retained items have positive estimates. In coordinated strategizing, 21 of 25 retained items have positive estimates. In collaborative strategizing, 15 of 17 retained items have positive estimates. The median and mean item-level estimates are positive across all three dimension scales. The director-perceived positive result is therefore robust at item level across systematic, coordinated, and collaborative strategizing.

This is consistent with the empirical pattern established in Chapters 11 and 12. Chapter 11 showed that the director-perceived overall index had the largest positive training/no-training difference in change. Chapter 12 showed that the director-perceived dimension scale estimates were positive across systematic, coordinated, and collaborative strategizing, with the largest estimates in collaborative and coordinated strategizing. Table 13.2 adds that the positive director-perceived result is robust across the retained items behind all three final dimension scales. The director-perceived measure is therefore the most internally consistent positive result across the overall index, dimension scale, and item-level analyses.

For strategic readiness perceived by city councilors, the item-level estimates mainly point in the opposite direction of the preregistered expectation. In systematic strategizing, six of seven retained items have negative estimates. In coordinated strategizing, four of six retained items have negative estimates. In collaborative strategizing, seven of nine retained items have negative estimates. The opposite-direction city councilor-perceived result is therefore robust at item level across all three dimension scales. The coordinated item-level result is less pronounced than the systematic and collaborative results, but it still meets the two-thirds criterion.

The most pronounced negative item-level pattern is found in collaborative strategizing, where the median item-level estimate is -0.46 and the mean item-level estimate is -0.37 . This is consistent with Chapter 12, where the city councilor-perceived collaborative scale had the largest opposite-direction dimension scale estimate.

Table 13.2: Direction of item-level training/no-training differences within final dimension scales

Measure	Dimension scale	Items in final dimension scale	Positive item-level estimates	Zero item-level estimates	Negative item-level estimates	Median item-level estimate	Mean item-level estimate
Strategic readiness reported by the dyad	Systematic strategizing	19	14	1	4	0.25	0.20
Strategic readiness reported by the dyad	Coordinated strategizing	27	17	2	8	0.17	0.11
Strategic readiness reported by the dyad	Collaborative strategizing	22	11	0	11	0.00	0.09
Strategic readiness perceived by directors	Systematic strategizing	16	14	0	2	0.26	0.31
Strategic readiness perceived by directors	Coordinated strategizing	25	21	1	3	0.42	0.34
Strategic readiness perceived by directors	Collaborative strategizing	17	15	0	2	0.27	0.38
Strategic readiness perceived by city councilors	Systematic strategizing	7	1	0	6	-0.19	-0.26
Strategic readiness perceived by city councilors	Coordinated strategizing	6	2	0	4	-0.16	-0.12
Strategic readiness perceived by city councilors	Collaborative strategizing	9	2	0	7	-0.46	-0.37

Note: The table summarizes item-level training/no-training differences in change within the final dimension scales. A positive item-level estimate means that the item changed more positively in the training group than in the no-training group. A negative item-level estimate means that the no-training group changed more positively than the training group. Table 13.2 summarizes the item-level direction patterns. Appendix A13 reports the corresponding printed summary, while the public online appendix provides the QID-level item breadth file based on aggregate training/no-training differences in change.

Taken together, the item-level analysis shows that the director-perceived positive result is robust across retained items, and that the city councilor-perceived opposite-direction result is also robust across retained items. The dyad-reported result is more differentiated. The dyad-reported systematic result is robust at item level, the coordinated result is mainly positive but not robust according to the two-thirds criterion, and the collaborative result is not robust at item level because the retained items are evenly divided between positive and negative estimates.

13.3 Summary of role-based and item-level patterns

Chapter 13 adds two qualifications to the overall-index and dimension-scale results. First, the positive dyad-reported direction is present in the available role-specific comparisons for both mayors and municipal CEOs. The estimates are similar at the overall-index level and remain positive in leave-one-municipality-out checks, although the two roles display different dimensional profiles. This is consistent with the role-based wording of H1 within the designed comparison.

Second, the item-level analysis shows different degrees of directional breadth. The director-perceived positive result is the most stable pattern: positive estimates are found across all three dimensions and most retained items, and the classifications remain unchanged when individual municipalities are excluded. The dyad-reported pattern is more differentiated. Systematic strategizing displays the broadest positive item pattern, coordinated strategizing is mainly positive but below the two-thirds threshold, and collaborative strategizing is evenly divided between positive and negative item estimates.

The city councilor-perceived complete-case analysis displays mainly negative item estimates, but this pattern is sensitive to one influential no-training municipality. The item-level analysis therefore confirms that the preregistered positive expectation in H3 is not observed, but it does not establish a stable negative training effect across municipalities.

Taken together, Chapters 11–13 support a differentiated conclusion. The director-perceived result provides the strongest and most directionally stable positive evidence. The dyad-reported result is positive across the overall index, both roles, and all three dimensions, but its item-level breadth is uneven, particularly for collaborative strategizing. The city councilor-perceived measure does not show the preregistered positive pattern; the negative main estimate is present across several analytical summaries but is sensitive to one municipality.

Part 4. Discussion, conclusion, and perspectives

Part 4 discusses the empirical findings, presents the formal conclusion, and develops perspectives for research and practice. Part 3 established a differentiated training/no-training pattern in strategic readiness. On the dyad-reported and director-perceived measures, the estimated differences in change point in the preregistered direction. On the city councilor-perceived measure, the estimated difference in change points in the opposite direction of the preregistered expectation.

The task in Part 4 is to specify what conclusions can be drawn from this result. Chapter 14 discusses the evidentiary status, scope conditions, limitations, and potentials of the study. The chapter examines how the findings are shaped by the small-N comparative design, researcher positionality, field access, attention and reactivity effects, respondent-specific measurement, implementation variation, and the distinction between planned and delivered leadership training.

Chapter 15 provides the dissertation's formal conclusion. It gives the empirical status of the preregistered hypotheses, answers the preregistered research question, and concludes on the dissertation's theoretical, leadership-training, methodological, measurement-related, and empirical contributions.

Chapter 16 develops the perspectives that follow from the dissertation. It discusses what the findings imply for theory, methodology and measurement, empirical research, practical implications, and future research.

Together, the three chapters move from interpretation to conclusion and perspective. The purpose is to clarify the status, reach, and implications of the differentiated result established in Part 3.

14. Discussion and limitations

The empirical analyses have established a differentiated pattern of change in strategic readiness. On the dyad-reported and director-perceived measures, the estimated training/no-training differences in change point in the preregistered direction. The dyad-reported result provides some support within the designed comparison, but it should be interpreted with caution, especially in relation to collaborative strategizing. The director-perceived result provides the clearest positive result in the hypothesis evaluation. On the city councilor-perceived measure, strategic readiness changes in the opposite direction of the preregistered expectation. Chapter 14 discusses the evidentiary status and interpretive conditions of this differentiated result.

Four clarifications guide the discussion. First, the empirical basis concerns estimated training/no-training differences in change within the participating municipalities. Second, the comparison concerns assignment to leadership training as delivered rather than isolated effects of individual training elements. Third, the findings are respondent specific. Strategic readiness reported by the dyad, perceived by directors, and perceived by city councilors are interpreted from analytically distinct respondent positions. Fourth, the empirical evidence does not warrant a uniform positive conclusion about leadership training across these respondent positions. The findings are instead interpreted as a differentiated design-based result concerning leadership training as delivered and change in strategic readiness.

The chapter treats the results as evidence produced under specific design, field, measurement, implementation, and response material conditions. The study is a small-N comparative study in an elite-level municipal field where field access was made possible through my professional position in Komponent. Leadership training was delivered in a practice-embedded setting, where I was also involved as a trainer. Strategic readiness was measured through respondent-specific questionnaire-based measures. The purpose of the chapter is to clarify how these conditions shape the interpretation, limitations, generalizability, and analytical reach of the study.

The discussion returns to the motivation from which the dissertation began: how mayors and municipal CEOs work strategically together under complexity and turbulence, with social acceleration as the temporal background. The dissertation addresses this motivation by developing strategic readiness as a concept for systematic, coordinated, and collaborative strategizing in the mayor-municipal CEO dyad and by examining the relationship between dyad-based leadership training as delivered and change in strategic readiness. Strategic readiness builds on the apex literature by treating the mayor-municipal CEO relation as differentiated, interdependent, and central to municipal direction. Its contribution is to

provide an analytical language for how strategic dyads work with strategic issues in systematic, coordinated, and collaborative ways under complexity and turbulence.

14.1 Status of empirical evidence

The empirical evidence in the dissertation has a design-based and comparative status. The analyses estimate training/no-training differences in change in strategic readiness among the participating municipalities. Change is calculated from before to after the training period, and the central comparison is whether the after-minus-before change in training municipalities differs from the after-minus-before change in no-training municipalities within each respondent-specific measure.

A main strength of the evidence lies in the way access to a difficult field is organized into comparison. The design turns field access into a structured comparison through MSSD, stratification by municipal size, randomized contact order, assignment to training and no-training after baseline measurement, implementation documentation, and respondent-specific measurement. These design choices enable a comparison between municipalities assigned to leadership training and municipalities assigned to no-training over time. The empirical estimates therefore derive from a designed comparison.

The evidence is also bounded by the same design. The study is a small-N comparative study in an elite-level municipal field where access depends on acceptance from mayors and municipal CEOs, where few municipalities contribute to the comparison, and where individual municipality-level index scores can influence group means and estimated differences. The certainty about the empirical estimates is, therefore, shaped by the small number of municipalities, possible changes in respondent composition across measurement waves, local developments during the study period, and variation in how the delivered training was taken up by participating dyads.

The reported overall-index estimates are unweighted complete-case municipality contrasts. The dyad-reported comparison includes six no-training and six training municipalities, the director-perceived comparison includes six no-training and four training municipalities, and the city councilor-perceived comparison includes five no-training and six training municipalities. Within each measure, the same municipalities enter the before value, the after value, and the change calculation. The training/no-training contrast originates in random assignment within strata, while the realized analytical samples are shaped by the availability of paired municipality-level scores.

All three comparisons also begin from unequal baseline positions, and in each measure the group with the lower baseline mean subsequently changes more positively. This does not invalidate the difference-in-change calculation, but in the small municipal sample the realized magnitudes may also be influenced by

chance baseline imbalance, available scale range, measurement variation, and regression toward the mean.

Single-municipality sensitivity checks further differentiate the evidentiary pattern. The dyad-reported and director-perceived estimates remain positive when individual municipalities are excluded. The city councilor-perceived estimate is more sensitive: excluding one influential no-training municipality changes the overall contrast from -0.24 to approximately zero. The stable conclusion is therefore that H3 is not supported; the evidence is weaker for a stable negative training effect.

Chapter 11 provides the overall index basis for the hypothesis evaluation. Chapter 12 examines whether the overall index results are robust at the dimension scale level across systematic, coordinated, and collaborative strategizing. Chapter 13 adds two supplementary specifications: The role-based analysis specifies the dyad-reported result in relation to H1's wording about both the mayor and the municipal CEO, and the item-level analysis examines whether the dimension scale results are robust across the retained items used to construct the final dimension scales.

In Chapters 12 and 13, robustness is used in a deliberately restricted descriptive sense. The dimension-scale analysis examines directional breadth across the three dimensions, and the item-level analysis examines directional breadth across retained items using the stated two-thirds criterion. These analyses do not provide independent validation of the overall estimates or quantify statistical uncertainty.

The key evidentiary implication is that the results must be interpreted as differentiated across the respondent-specific measures. Strategic readiness reported by the dyad tended to change more positively in training municipalities than in no-training municipalities, and H1 receives some support within the designed comparison. This support is moderate and should be interpreted with caution, especially in relation to collaborative strategizing. Strategic readiness perceived by directors provides the clearest positive estimated training/no-training difference in change. Strategic readiness perceived by city councilors changed in the opposite direction of the preregistered expectation. The city councilor-perceived result is therefore an opposite-direction result within the designed comparison and a central part of the empirical evidence. The discussion treats the dyad-reported, director-perceived, and city councilor-perceived results as parts of the same differentiated evidentiary pattern.

The following sections examine the conditions that shape how the results can be interpreted: researcher positionality and field access, attention and participation effects, researcher as trainer, respondent-specific measurement, scope conditions, implementation variation, and the limits of generalization and transparency. The purpose is to clarify the evidentiary status of the differentiated result before the dissertation turns to the formal conclusion in Chapter 15.

14.2 Researcher positionality and field access

Researcher positionality is one of the conditions under which the empirical evidence in the dissertation was produced. The study was conducted as part of an industrial PhD at Komponent, an organization connected to leadership and professional development in Danish municipalities. Komponent is collectively owned by the Danish municipalities and operates on a nonprofit basis. Its activities are demand driven and financed through services requested and paid for by municipalities. My professional role as vice director in Komponent includes advisory and coaching work with mayors and municipal CEOs. This professional position was central to accessing an elite-level municipal field that is difficult to open through standard recruitment procedures.

This positionality is a condition of access. The relevant actors are few, recognizable, institutionally central, and difficult to recruit into a common training and measurement sequence. My professional role made it possible to contact mayor-municipal CEO dyads, establish trust, and organize participation across several municipalities. Field access was part of the methodological conditions that made the comparative study possible.

The same positionality is also a condition of interpretation. The study was embedded in the professional field to which the research question belongs: municipal leadership development, advisory work with mayors and municipal CEOs, and training directed at executive municipal leadership. Participating municipalities may, therefore, have encountered the study through a field relation in which research, professional development, training relevance, and advisory practice were connected. The knowledge produced by the dissertation is also expected to be relevant to the advisory practice to which I return after the PhD. This gives the evidence a practice-embedded character and places the interpretation of the findings inside the same professional field that made the study possible.

This interpretive condition also has an interest-related dimension. Although Komponent operates on a nonprofit basis, its leadership and professional development activities are demand-driven and financed through services requested and paid for by municipalities. Positive evidence on dyad-based leadership training may therefore have professional, organizational, and financial relevance to Komponent, and professional relevance to my own advisory practice. This creates a risk that positive findings are interpreted too strongly, especially where the results point in the expected direction. It also creates a risk that the opposite-direction city councilor-perceived result is underemphasized. These risks are part of the interpretive conditions of the study.

Researcher positionality is relevant for interpreting the differentiated empirical pattern as a whole. The interest-related condition concerns the interpretation of all three respondent-specific results. The positive dyad-reported estimate, the clearest positive director-perceived estimate, and the negative city councilor-perceived estimate are treated as parts of the same evidentiary pattern and are given

the same interpretive status in the discussion. This is important because the professional, organizational, and financial interest in training relevance could otherwise encourage a stronger reading of the positive results and a weaker reading of the opposite-direction city councilor-perceived result.

The research design included several procedures that structured the access relation. Municipalities with recent advisory or professional relationships with me were excluded prior to recruitment. Recruitment followed randomized contact order within strata. Assignment to training and no-training took place after baseline measurement. Trainer allocation for the first module was randomized. The delivered intervention was documented through implementation material. These procedures organized field access into a comparative design and reduced discretionary influence on recruitment, assignment, trainer allocation, and implementation documentation.

Field access and interpretation are connected. The professional position that opened the field also placed the study inside a municipal leadership development setting. The evidentiary status of the study depends on making this relation explicit and on interpreting the results through the designed comparison, the respondent-specific measurement architecture, and the differentiated empirical pattern. Researcher positionality is therefore both part of how the study became possible and part of how its findings must be interpreted.

14.3 Attention, participation, and researcher as trainer

Attention, participation, and the role of researcher as trainer role are part of the conditions under which the training/no-training estimates were produced. The study was conducted in a field-based setting where the training municipalities received structured attention regarding the mayor-municipal CEO dyad's strategizing. This attention was organized through modules, strategic cases, touch-downs, feedback, diary work, and repeated movement between the training setting and municipal practice. The attention directed at the dyad's strategizing was part of the delivered leadership training.

This can be understood as a research participation issue, often discussed under the Hawthorne effect label. The Hawthorne label is used for situations in which participants change behavior or responses because participation, observation, attention, or measurement becomes part of the research situation. McCambridge, Witton, and Elbourne (2014) argue that this label covers heterogeneous forms of research-related reactivity and that broader concepts are needed to understand research participation effects. In this dissertation, the research participation issue takes a specific form. The leadership training was designed to direct attention toward the dyad's systematic, coordinated, and collaborative strategizing. The theoretical argument in Chapter 4 specified reflection and adjustment as one mechanism linking leadership training to strategic readiness, and the planned program in Chapter 5 operationalized this through feedback, dialogue,

diary work, and repeated application in municipal practice. Consequently, attention was therefore both a possible source of reactivity and one of the ways in which the training was intended to work on strategic readiness.

The implication is that the training/no-training estimates should be interpreted at the level of leadership training as delivered. The comparison estimates differences in change associated with assignment to leadership training, where the delivered training included the conceptual language of strategic readiness, structured work with strategic issues, feedback, reflection, trainer interaction, attention to practice, and participation in the training sequence. The no-training municipalities participated in the measurement sequence, but they did not receive the same structured work with dyadic strategizing between the two measurements. The relevant evidentiary claim is therefore about leadership training as delivered.

Four participation-related response conditions are especially relevant. First, the questionnaire sequence may have created testing or sensitization effects because respondents in both groups answered questions about systematic, coordinated, and collaborative strategizing before and after the training period. Second, demand characteristics may have appeared if participants inferred from the training and questionnaire that systematic, coordinated, and collaborative strategizing was the expected direction of development. Third, social desirability and evaluation apprehension are especially relevant for the dyad-reported measure because mayors and municipal CEOs reported on a form of strategic work that is professionally desirable and directly connected to their own executive collaboration. Fourth, my combined researcher and trainer role may have shaped how participants engaged with the intervention or reported their subsequent strategizing.

The researcher-as-trainer role adds a further condition of interpretation. I was not only the researcher designing and analyzing the study, but also one of the trainers involved in delivering the training. This gave me detailed knowledge of the training process, the implementation conditions, and the interaction during the training sequence. It also meant that the training was delivered by a person with a continuing professional position in the municipal leadership development field. Participants may have attached meaning to the training through that role, and they may have engaged with the training as part of a professional field relation rather than as an anonymous experimental intervention.

This field-based delivery has two implications. The first concerns practice-embedded relevance. The training was practice-embedded leadership for mayor-municipal CEO dyads, delivered in a municipal leadership field by trainers with knowledge of municipal strategic work. It therefore took place under conditions close to the professional setting in which dyad-based leadership training would ordinarily have meaning. This is important because the dissertation examines leadership training in the field in which it is designed to matter, not as a detached laboratory stimulus.

The second implication concerns the scope of causal interpretation. The estimated training/no-training differences in change include the social and professional conditions of delivery. They include attention, participation, trainer interaction, feedback, diary work, and the role of researcher as trainer role as parts of leadership training as delivered. The causal interpretation therefore concerns assignment to leadership training as delivered in a practice-embedded municipal setting.

The design structured these conditions procedurally. Assignment to leadership training and no-training took place after baseline measurement. Trainer allocation for the first module was randomized. Implementation documentation recorded how the training was delivered and where deviations from planned delivery occurred. These procedures support transparency around delivery and make the field-based character of the intervention explicit. They also clarify the unit of interpretation: The evidence concerns leadership training as delivered.

These conditions are especially relevant for interpreting the dyad-reported result. The dyad-reported measure is based on the trained actors' own reports, and these actors participated directly in the intervention. Their responses may reflect changes in strategizing, heightened awareness of the language and categories introduced through training, or changed standards for judging their own strategic work.

The respondent-specific pattern is also relevant for interpreting attention, participation, and researcher-as-trainer effects. The director-perceived measure provides the clearest indication of a positive estimated training/no-training difference in change, whereas the city councilor-perceived result changes in the opposite direction of the preregistered expectation. This differentiated pattern matters because the empirical result is not a uniform positive change across all respondent-specific measures. Attention, participation, and researcher-as-trainer effects therefore have to be interpreted together with the respondent-specific empirical pattern, which shows some support for the dyad-reported result, the clearest positive result for the director-perceived measure, and an opposite-direction result for the city councilor-perceived measure.

The implication is that the causal interpretation developed in the dissertation concerns leadership training as delivered in a practice-embedded field setting. The study estimates training/no-training differences in change associated with assignment to leadership training as delivered. The separate contribution of specific elements - such as strategic cases, modules, touchdowns, feedback, diary work, tools, trainer interaction, and the four didactic domains - is theoretically specified in the training program rather than empirically isolated as a separate mechanism.

14.4 Measurement, reported and perceived strategic readiness, and respondent position

The measurement strategy is central to how the empirical results are interpreted. Strategic readiness is conceptualized as the strategic dyad's systematic, coordinated, and collaborative strategizing. Empirically, this concept is examined through Likert-type questionnaire responses collected before and after the training period. The results concern change in reported and perceived strategic readiness within the respondent-specific measures used in the study. This means that leadership training as delivered may be associated with different directions of change across the three respondent-specific measures.

The measurement strategy follows the conceptual and design structure developed in the dissertation. Strategic readiness is one systematized concept operationalized through three respondent-specific measurement specifications and corresponding measures: strategic readiness reported by the dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. These measures are linked to H1, H2, and H3 and analyzed separately within the training/no-training difference-in-change logic. The primary empirical comparison is the after-minus-before change in training municipalities compared with the after-minus-before change in no-training municipalities within each respondent-specific measure.

The baseline pattern is relevant not only because it describes the starting positions, but because all three comparisons move in the direction of the group that began at the lower level. The dyad-reported and director-perceived training groups began lower and subsequently changed more positively, while the city councilor-perceived no-training group began lower and subsequently changed more positively. These patterns are compatible with training-related change, but they are also compatible with some contribution from chance baseline imbalance, remaining scale range, measurement variation, and regression toward the mean. The study cannot determine the relative contribution of these possibilities.

This differentiated pattern has an implication for how dyad-based leadership training is interpreted. The intervention was directed at the mayor-municipal CEO dyad, but the evaluation includes respondent positions inside and outside the dyad. The same training assignment can, therefore, be associated with positive change in some respondent-specific measures and negative change in another. In this study, the estimated change is positive in the dyad-reported and director-perceived measures, and negative in the city councilor-perceived measure. The city councilor-perceived result indicates that training directed at the dyad may be accompanied by less positive change in how the dyad's strategic readiness is assessed from the city councilor respondent position. This result is part of the differentiated empirical pattern and has the same evidentiary status as the positive dyad-reported and director-perceived results.

The dyad-reported measure has a specific interpretive condition because the trained actors report on their own strategizing. Training may change how mayors and municipal CEOs understand systematic, coordinated, and collaborative strategizing. This can affect reported change because their internal standard for rating their own strategizing may change during the study period. Training may make strategizing more salient thereby increasing reported readiness. It may also make the dyad more critical by making shortcomings in its own strategizing more apparent. Consequently, the dyad-reported result should be interpreted as reported change in the trained actors' own assessment of strategic readiness, with particular caution in relation to collaborative strategizing.

The director-perceived and city councilor-perceived measures have a different measurement status from the dyad-reported measure. They are observer ratings of the dyad's systematic, coordinated, and collaborative strategizing from two different respondent positions outside the dyad. They are linked to different hypotheses, different questionnaire versions, and different positions in relation to the dyad's strategic work.

The city councilor-perceived result is the central interpretive challenge in the measurement discussion. The estimate is negative: City councilor-perceived strategic readiness changed less positively in training municipalities than in no-training municipalities. This is not merely an absence of support for H3. It is a negative training/no-training difference in change and is therefore consistent with a possible negative training effect on city councilor-perceived strategic readiness. At the same time, the questionnaire data establish the measured change pattern, not the process through which the pattern emerged. The negative estimate is also consistent with alternative interpretations, including no effect, local political or administrative developments, response composition, and differences in the information, interactions, or political processes on which city councilors based their assessment of the dyad's strategic readiness during the study period. As such, the interpretation must hold two points together: The estimate is negative, and the questionnaire data do not establish the mechanism behind the negative estimate.

The differentiated respondent pattern raises a question about the reach and visibility of dyadic strategizing. Changes in the dyad's internal work may become visible in administrative preparation, coordination, and organizational interaction before they become visible or positively assessed in elected-political arenas. Conversely, stronger internal alignment in the dyad may not automatically be experienced as stronger political involvement, openness, or strategic readiness from the city councilor position. The study does not establish either process. It identifies a theoretically and practically relevant question about how dyadic strategizing enters wider political practices and becomes observable from different institutional positions.

Explaining the process that generated this pattern would require systematic processual or qualitative evidence about interaction, timing, political processes,

and local context. The intervention and process material document the delivery of the training and participants' engagement with the training activities, but they are not analyzed as systematic mechanism evidence for the city councilor-perceived result. Therefore, the dissertation can establish the measured city councilor-perceived change pattern, but it cannot establish the mechanism that produced it.

Respondent position is part of the theoretical, operational, and analytical architecture of the dissertation. The respondent-specific measures make it possible to examine change in strategic readiness within the three hypothesis-linked measures. They also keep the results at the level of reported and perceived strategic readiness. The empirical finding is differentiated across respondent-specific measures: positive for strategic readiness reported by the dyad and perceived by directors, and negative for strategic readiness perceived by city councilors.

14.5 Scope conditions and limitations

The interpretation of the results is shaped by a set of scope conditions that follow from the research design, the empirical field, the delivered leadership training, and the response material. These conditions define the interpretive range of the training/no-training differences in change. The study provides design-based comparative evidence from a small elite-level municipal field, and this evidence must be interpreted within the design, field, implementation, measurement, and response-material conditions under which it was produced.

The first scope condition concerns participation. Municipalities entered the study through a structured recruitment procedure, but participation still required municipal acceptance of the invitation to participate. The randomized contact order eliminated discretionary influence on the order of invitations within strata, but participation still depended on acceptance from both the mayor and the municipal CEO. Participating municipalities may differ from non-participating municipalities in motivation, available time, interest in strategic leadership, existing collaboration, or willingness to engage with leadership training. This is part of the condition for conducting research in an elite-level municipal field where participation cannot be assumed.

The second scope condition concerns the small number of participating municipalities. The study includes twelve municipalities, with six assigned to leadership training and six assigned to no-training. This small-N structure made it possible to conduct a transparent comparison in a field where access is difficult, but it also limits the certainty attached to the estimates. Random variation in individual municipalities combined with low statistical power makes it difficult to draw conclusions with a high level of certainty. This is also why the dissertation does not make claims about statistical significance. The municipality-level figures and the stratified analysis were included to increase transparency about how the group-level estimates are located within the size-based design structure.

Local and national developments during the study period provide a third scope condition. Municipalities are not static settings during training and measurement. Budget pressures, political conflicts, organizational changes, personnel changes, local controversies, reform demands, national policy changes, local election dynamics, or major administrative initiatives may affect how strategic readiness is reported or perceived. Such developments may occur in both training and no-training municipalities, and they may influence respondent groups differently. This is one reason why the design includes both training and no-training municipalities: Both groups are exposed to municipal and national developments during the study period, while only one group is assigned to leadership training. The resulting estimates reflect change during a period in which municipalities also followed their own local trajectories.

A fourth scope condition concerns alternative routes to change. No-training municipalities did not receive leadership training during the study period, but they may still have worked with strategic issues through ordinary political and administrative processes, other leadership development activities, advisory engagements, local reforms, or internal strategic initiatives. The no-training group may also have been affected by participation in the study itself because respondents answered questions about systematic, coordinated, and collaborative strategizing before and after the training period. If participation in the study inspired no-training municipalities to work more deliberately with strategic readiness or dyadic strategizing, this would constitute contamination. Such contamination would make the hypothesis evaluation more conservative because the estimated difference between training and no-training would be smaller than planned. The training/no-training comparison therefore distinguishes municipalities assigned to leadership training from municipalities assigned to no-training during the study period. It should be interpreted as a comparison between these two design groups.

A fifth scope condition concerns implementation and uptake. Chapter 7 documents leadership training as delivered and identifies deviations from the planned training architecture. The estimates concern leadership training as delivered and taken up in the participating municipalities. Dyads could engage differently with strategic cases, feedback, diary work, and intermedia between modules. This variation is part of the delivered intervention to which the estimates apply. The analysis does not isolate the contribution of specific training elements as separate empirical mechanisms.

A sixth scope condition concerns respondent composition across measurement waves. The analyses use respondent-specific measures constructed from questionnaire responses collected before and after the training period. The response rates reported in Chapter 9 vary substantially across respondent groups and, for city councilors, across waves, and changes in who responded may affect the measured change, especially for directors and city councilors where the same individuals are not always represented in the same way across before and after

measurements. The municipality-level aggregation reduces the influence of individual respondents, but the results still depend on the response material available within each respondent-specific measure and wave. This is particularly relevant for director-perceived and city councilor-perceived strategic readiness, where perceived levels may be shaped by both changes in the dyad's strategizing and changes in the composition of respondents who rated that strategizing. The municipality-level values also rest on varying numbers of respondents. Several director-perceived municipality values are based on a single responding director, and the number of responding city councilors per municipality fell between the two waves in most municipalities. This affects the stability of the municipality-level values and applies with most force to the two observer-rated measures, where the responding group is not fixed across waves. The dyad-reported measure is not affected in the same way, because it rests on the same two respondents in every municipality at both measurement points.

A seventh scope condition concerns baseline placement. As discussed in Section 14.4, the three respondent-specific measures begin from different baseline patterns. The dyad-reported measure has relatively high baseline levels in both groups, whereas the director-perceived measure begins with a higher no-training baseline, and the city councilor-perceived measure begins with a higher training baseline. These baseline patterns shape the empirical form of the training/no-training differences in change: a moderate positive change contrast in the dyad-reported measure, the clearest positive contrast in the director-perceived measure, and an opposite-direction change pattern in the city councilor-perceived measure. Baseline placement enters the discussion as part of the empirical form of the differentiated result.

The time horizon of the study provides an eighth scope condition. The analysis examines change from before to after the training period. This time frame is appropriate for examining whether the delivered leadership training is associated with short-term change in reported and perceived strategic readiness. It is less informative about whether changes are sustained, delayed, reversed, or further developed after the measurement period. Strategic readiness concerns systematic, coordinated, and collaborative strategizing over time, and the post-training measurement captures one point in this development. Longer follow-up periods would provide different evidence about the durability and temporal development of training-related change.

Taken together, these scope conditions define the interpretive range of the study. They concern participation in an elite-level field, small-N comparison, local and national developments, alternative routes to change, no-training group participation, implementation variation, respondent composition, baseline placement, and the time horizon of the study. The empirical status of the differentiated result has to be read within this interpretive range. The dissertation provides structured comparative evidence about leadership training and strategic

readiness under the specific design, field, implementation, measurement, and response-material conditions through which the study was conducted.

14.6 Generalizability, transparency, and analytical reach

The generalizability of the dissertation is analytical and design based. The study examines twelve municipalities within a structured comparative design and does not rely on statistical generalization from a large probability sample. Analytical generalizability instead concerns the conditions under which the theoretical argument, design structure, and empirical findings can be interpreted beyond the participating municipalities. In this dissertation, those conditions are tied to the case-selection logic, the stratified design, the respondent-specific measurement strategy, the preregistered expectations and procedures, and the traceable reporting of the empirical comparison.

The first condition concerns the Danish municipal field. The study begins with the population of Danish municipalities and uses MSSD criteria to select municipalities for comparison. The participating municipalities are part of a structured municipal comparison. They share the mayor-municipal CEO apex and the municipal mandate, while the design further structures the comparison through municipal size stratification and the exclusion of municipalities with recent professional engagement with the principal investigator. The analytical generalizability of the study therefore depends on both the institutional similarity of the municipal field and the case-selection logic used to construct the comparison.

The second condition concerns the political-administrative apex as the relational setting of the study. The dissertation studies strategic readiness in the mayor-municipal CEO dyad. The strategic dyad is the focal relational unit through which strategic readiness is conceptualized and the immediate unit toward which leadership training is directed. The analytical scope of the findings is, therefore, tied to settings where strategic work depends on interaction between elected political leadership and appointed administrative leadership. The basis for interpreting the findings beyond the participating municipalities is the dyadic and political-administrative structure on which the theoretical argument and empirical design are built.

The third condition concerns the design logic for examining dyad-based leadership training. The dissertation combines field access, dyad-based training, before-after measurement, training/no-training comparison, implementation documentation, and respondent-specific measurement. The estimates must be interpreted through the design that produced them: case selection, assignment, measurement, implementation documentation, and respondent-specific analysis. The analytical reach of the study lies in the connection between the theoretical argument, the comparative design, and the measurement strategy.

Transparency is central to this form of analytical generalizability. The dissertation makes the design traceable by documenting how municipalities were

selected for comparison, how municipal size was incorporated through stratification, how recruitment was organized through randomized contact order, how assignment to leadership training and no-training took place after baseline measurement, how leadership training was delivered, and how the measures of strategic readiness were constructed. This documentation specifies how the empirical comparison was produced and what design assumptions the comparison rests on.

Preregistration is part of this transparency structure. The preregistered research question, hypotheses, training architecture, measurement strategy, and planned analytical strategy established the expectations and procedures in the project before the empirical results were known. This is important in a small elite-field study where the researcher holds a professional position in the field, and several analytical choices require judgment. The original research question and hypotheses are retained in their preregistered wording. At the same time, the dissertation's conceptual vocabulary has been refined during the research process, especially through the development of strategic readiness, the distinction between horizon orientation and dimensions, and the respondent-specific measures.

Transparency cannot mean full exposure of the empirical field. The dissertation studies a small number of recognizable elite participants, and the reporting strategy must preserve the confidentiality promises that made participation possible. Mayors, municipal CEOs, directors, city councilors, dyads, and municipalities may become recognizable through combinations of role, municipality size, stratum, training status, respondent group, local context, and strategic issue. The reporting strategy therefore uses aggregated results, unlabeled municipality-level patterns, recognition-protected implementation documentation, and access-differentiated appendix material. This form of reporting balances traceability with confidentiality while keeping the empirical comparison systematic.

This balance also affects the use of implementation material. The dissertation documents leadership training as delivered and identifies deviations from the planned training architecture. This material makes the intervention traceable and supports the interpretation of what leadership training as delivered consisted of. At the same time, the implementation material is not used to reconstruct individual dyads or to explain municipality-specific outcomes in the main analysis. The trade-off is that the dissertation can document the delivered intervention without turning implementation material into identifiable dyad-level accounts.

The analytical reach of the findings is conditional. It is defined by the relation between the study's theoretical object, design structure, field conditions, and measurement strategy. The analytical reach of the findings is conditioned by strategic work being organized around a political-administrative dyad, leadership training being directed at that dyad's strategizing, and strategic readiness being examined through respondent-specific measures that distinguish between self-ratings from within the dyad and observer ratings from positions outside the dyad. Under these conditions, the findings are best understood as design-based

comparative evidence about dyad-based leadership training and strategic readiness.

The analytical reach of the study is also bounded by the differentiated empirical result. The study provides evidence of a differentiated training/no-training difference in change: some support for strategic readiness reported by the dyad, the clearest positive result for strategic readiness perceived by directors, and an opposite-direction result for strategic readiness perceived by city councilors. The generalizability of the dissertation concerns this differentiated result rather than a general claim that dyad-based leadership training strengthens strategic readiness across the dyad, directors, and city councilors.

14.7 Summary of discussions and limitations

This chapter has discussed the evidentiary status, interpretive conditions, limitations, and analytical reach of the study. The central point is that the empirical results are interpreted as design-based comparative evidence from a small elite-level municipal field. The estimates concern training/no-training differences in change within respondent-specific measures of strategic readiness and are shaped by the design, field access, implementation, measurement, and response material conditions under which they were produced.

The discussion has specified why the empirical result is differentiated across respondent-specific measures. The dyad-reported result provides some support within the designed comparison and should be interpreted with caution, especially in relation to collaborative strategizing. The director-perceived result provides the clearest positive result in the hypothesis evaluation, while the city councilor-perceived result changes in the opposite direction of the preregistered expectation. These three respondent-specific results form the evidentiary basis for the formal conclusion in Chapter 15.

15. Conclusion

This chapter provides the formal conclusion of the dissertation. It gathers the results of the empirical analyses in Chapters 11–13 and the interpretive conditions and limitations discussed in Chapter 14. The chapter first states the main conclusion, then evaluates the empirical status of the preregistered hypotheses and answers the preregistered research question. It then concludes on the dissertation's theoretical, leadership-training, methodological, measurement-related, and empirical contributions before Chapter 16 turns to perspectives.

15.1 Main conclusion

The dissertation indicates that dyad-based leadership training has an effect on strategic readiness, but not a uniform positive one. In the designed comparison, the estimated effect is positive for strategic readiness reported by the dyad and perceived by directors, and negative for strategic readiness perceived by city councilors. This conclusion concerns training/no-training differences in change for leadership training as delivered and is limited in certainty and generalizability by the small-N, practice-embedded design.

15.2 Empirical status of the preregistered hypotheses

The empirical status of the preregistered hypotheses is evaluated on the basis of the respondent-specific overall index analyses in Chapter 11, with one additional specification for H1. Chapter 11 provides the construct-level training/no-training difference in change for strategic readiness reported by the dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. These three overall indices correspond to the three preregistered hypotheses. H1, however, is formulated as strategic readiness reported by both the mayor and the CEO. The role-based analysis in Chapter 13.1 is, therefore, used to complete the evaluation of H1 by examining whether the positive dyad-reported overall index result is present for both roles in the strategic dyad.

The analyses in Chapters 12 and 13.2 do not create separate hypothesis tests. Chapter 12 examines whether the overall index results from Chapter 11 are robust at the dimension scale level across systematic, coordinated, and collaborative strategizing. Chapter 13.2 examines whether the dimension scale results are robust across the retained items used to construct the final dimension scales. These analyses specify the empirical status of the hypotheses by showing whether the overall index results are consistent across dimensions and items, but they do not replace the overall index evaluation. The stratified analysis in Chapter 11 further locates the overall index results within the size-based design structure, but it does not establish separate municipal size effects.

All three hypotheses are evaluated as training/no-training differences in change. Change is calculated as after minus before. The estimated training/no-training difference in change is calculated as training group change minus no-training group change. A positive estimate means that training municipalities changed more positively than no-training municipalities within the respondent-specific measure. A negative estimate means that no-training municipalities changed more positively than training municipalities within that measure.

The empirical status of the hypotheses should be interpreted within the small-N comparative design. The estimates provide design-based comparative evidence within the municipalities included in the study. They are uncertain because few municipalities contribute to the comparison, because respondent composition may vary across measurement waves, because local developments may have affected change during the study period, and because implementation may have been taken up differently across dyads. The hypothesis evaluation therefore supports cautious claims about training/no-training differences in change within the designed comparison.

H1 expected leadership training of the mayor and the municipal CEO to increase strategic readiness in the dyad reported by both the mayor and the CEO. H1 receives some support within the designed comparison. Strategic readiness reported by the dyad tended to change more positively in training municipalities than in no-training municipalities. The estimated training/no-training difference in change was 0.13 at the overall index level.

The role-based analysis is important for the H1 evaluation because the hypothesis explicitly concerns strategic readiness reported by both roles in the strategic dyad. The overall dyad-reported index combines the mayor and the municipal CEO into one municipality-level measure. Chapter 13.1 shows that the positive dyad-reported difference is present for both role positions: 0.15 for mayors and 0.16 for municipal CEOs. This supports the role-based wording of H1 within the designed comparison.

The dimension scale and item-level analyses further inform the interpretation of H1. The dimension scale estimates are positive across systematic, coordinated, and collaborative strategizing, with the largest dyad-reported estimate in systematic strategizing. The item-level analysis shows that the positive dyad-reported result is not equally robust across the three dimensions. The systematic result is robust at item level. The coordinated result is mainly positive at item level, but it is not robust in the sense that fewer than two thirds of the retained items show estimates in the same direction. The collaborative result is not robust at item level because the retained items are evenly divided between positive and negative estimates. H1 therefore receives some support, but this support is moderate and should be interpreted with particular caution in relation to collaborative strategizing.

H2 expected leadership training of the mayor and the municipal CEO to increase strategic readiness in the dyad as perceived by directors. H2 receives the

clearest support within the designed comparison. Strategic readiness perceived by directors changed more positively in training municipalities than in no-training municipalities. In the director-perceived measure, the training group changed upward over the study period, while the no-training group changed downward. The estimated training/no-training difference in change was 0.41, which makes the director-perceived measure the clearest positive overall index result in the hypothesis evaluation.

The supplementary analyses support this interpretation. The director-perceived dimension scale estimates are positive across systematic, coordinated, and collaborative strategizing, with the largest estimates in collaborative and coordinated strategizing. The stratified analysis shows positive estimates across all three municipal size strata. The item-level analysis shows that the positive director-perceived dimension scale results are robust across the retained items in all three final dimension scales. H2 therefore receives the clearest support because the director-perceived result is positive at the overall index level, positive across all three dimensions, positive across the strata built into the design, and robust at item level. This does not remove the uncertainty attached to the small-N comparative design, but it makes the director-perceived measure the clearest positive result in the hypothesis evaluation.

H3 expected leadership training of the mayor and the municipal CEO to increase strategic readiness in the dyad as perceived by city councilors. H3 is not supported. City councilor-perceived strategic readiness changed in the opposite direction of the preregistered expectation. The estimated training/no-training difference in change was -0.24 . This is a negative training/no-training difference in change. It indicates that leadership training is not associated with more positive change in city councilor-perceived strategic readiness, although the design does not establish the mechanism behind this pattern.

The dimension scale and item-level analyses further support the evaluation that H3 is not supported. The city councilor-perceived estimates are negative across systematic, coordinated, and collaborative strategizing, with the largest opposite-direction estimate in collaborative strategizing. The item-level analysis shows that the opposite-direction result is robust across retained items in all three final dimension scales. In systematic strategizing, six of seven retained items have negative item-level estimates. In coordinated strategizing, four of six retained items have negative estimates. In collaborative strategizing, seven of nine retained items have negative estimates. The stratified analysis shows that the negative overall estimate is not uniformly distributed across strata. The estimates are positive in strata A and C but strongly negative in Stratum B. The overall negative city councilor-perceived estimate is therefore especially associated with Stratum B, without establishing municipal size as the explanation.

As reported in Table 15.1, the empirical status of the preregistered hypotheses is differentiated. H1 receives some support, but the support is moderate and should be interpreted with caution, especially in relation to collaborative

strategizing. H2 receives the clearest support within the designed comparison. H3 is not supported and changes in the opposite direction of the preregistered expectation. This hypothesis evaluation provides the basis for answering the preregistered research question in the next section.

Table 15.1: Empirical status of the preregistered hypotheses

Hypothesis	Respondent-specific measure	Empirical basis	Empirical status
H1	Strategic readiness reported by the dyad	The overall index estimate is positive, with an estimated training/no-training difference in change of 0.13. The role-based analysis shows that the positive dyad-reported difference is present for both mayors and municipal CEOs. The dimension scale estimates are positive across systematic, coordinated, and collaborative strategizing. The item-level analysis shows uneven robustness across dimensions, with the least robust item-level pattern in collaborative strategizing.	H1 receives some support within the designed comparison. The support is moderate and should be interpreted with caution, especially in relation to collaborative strategizing.
H2	Strategic readiness perceived by directors	The overall index estimate is positive, with an estimated training/no-training difference in change of 0.41. The director-perceived measure changed upward in training municipalities and downward in no-training municipalities. The dimension scale estimates are positive across systematic, coordinated, and collaborative strategizing, with the largest estimates in collaborative and coordinated strategizing. The stratified analysis shows positive estimates across all three strata, and the item-level analysis shows robustness across retained items in all three final dimension scales.	H2 receives the clearest support within the designed comparison.
H3	Strategic readiness perceived by city councilors	The overall index estimate is negative, with an estimated training/no-training difference in change of -0.24. The city councilor-perceived measure changed downward in training municipalities and slightly upward in no-training municipalities. The dimension scale estimates are negative across systematic, coordinated, and collaborative strategizing, with the largest opposite-direction estimate in collaborative strategizing. The item-level analysis shows robustness in the opposite direction across retained items in all three final dimension scales. The stratified analysis shows an uneven pattern, with the overall negative estimate especially associated with Stratum B, without establishing municipal size as the explanation.	H3 is not supported. City councilor-perceived strategic readiness changed in the opposite direction of the preregistered expectation.

15.3 Answer to the preregistered research question

The preregistered research question asked the following: “What is the effect of training mayor and CEO in a systematic, coordinated, and collaborative strategic practice when it comes to their responses to complexity and turbulence?”

The answer is that dyad-based leadership training indicates an effect on strategic readiness but not a uniform positive effect. Within the designed comparison, this effect is positive for dyad-reported and director-perceived strategic readiness, and negative for city councilor-perceived strategic readiness. This answer concerns training/no-training differences in change for leadership training as delivered and is limited in certainty and generalizability by the small-N, practice-embedded design.

In the terminology of the dissertation, the research question is answered through strategic readiness. Strategic readiness is defined as the strategic dyad’s systematic, coordinated, and collaborative strategizing. Responses to complexity and turbulence are examined through changes in respondent-specific measures of strategic readiness. Effect is, therefore, interpreted in the design-specific sense used throughout the dissertation: as the estimated training/no-training difference in change.

The empirical answer is differentiated across the three respondent-specific measures. For strategic readiness reported by the dyad, the estimated effect is positive, and the positive pattern is present for both role positions in the strategic dyad. For strategic readiness perceived by directors, the estimated effect is the clearest positive result in the hypothesis evaluation. For strategic readiness perceived by city councilors, the estimate is negative and points in the opposite direction of the preregistered expectation. The dissertation therefore answers the research question by showing that leadership training as delivered indicates an effect on strategic readiness under complexity and turbulence but that the effect differs across respondent positions.

15.4 Theoretical conclusion

The theoretical conclusion concerns how executive public strategizing under complexity and turbulence can be conceptualized and theorized in the mayor-municipal CEO dyad. The dissertation develops strategic readiness as the central concept for this purpose supplementing the political-administrative apex literature by directing analytical attention to the strategizing performed within the differentiated relation between elected and appointed executive actors.

This is the point at which strategic readiness contributes to the political-administrative apex literature. Apex research provides concepts for understanding differentiated roles, political mandate, administrative responsibility, advice, responsiveness, trust, interdependence, and executive interaction. Strategic readiness adds a concept for theorizing how the mayor and the municipal CEO work

strategically across these differentiations when strategic issues are complex and turbulent. The theoretical contribution is not that the dyad replaces the role-differentiated apex, but that the dyad can be theorized as a relational unit of joint strategizing while the mayor and the municipal CEO remain institutionally different actors.

The concept also specifies the internal form of this strategizing. Systematic strategizing concerns the recurrent, structured, and sustained handling of strategic issues over time. Coordinated strategizing concerns the alignment of roles, expectations, interpretations, attention, timing, and action. Collaborative strategizing concerns the joint development of interpretations, strategic possibilities, and possible directions through interaction. These three dimensions make it possible to theorize strategic work at the apex as a specified form of strategizing rather than as undifferentiated cooperation or executive interaction. They specify the kind of strategizing that constitutes strategic readiness.

The horizon-oriented specification relates the systematized concept of strategic readiness to complexity and turbulence. Strategic horizons provide the orienting architecture for theorizing how the dyad's strategizing is directed when strategic issues are grasped and addressed through different combinations of future knowability and issue-specific organizational readiness. This conceptual move is important because complexity and turbulence are not treated as abstract background conditions. They are theorized as conditions that shape how the strategic dyad orients its work in a context of complexity and turbulence. Strategic readiness is a concept not only for the presence of strategic work in the dyad, but also how the dyad engages in systematic, coordinated, and collaborative strategizing under complexity and turbulence.

The theoretical conclusion also concerns the causal argument linking leadership training to strategic readiness. In this dissertation, leadership training is not theorized as generic individual leadership development, but as a dyad-based, practice-near, and cumulative intervention directed at the mayor-municipal CEO dyad's strategizing. The theoretical link between training and strategic readiness is specified through four mechanisms: shared orientation, repeated practice, reflection and adjustment, and application in municipal practice. The causal argument is that leadership training may be relevant to strategic readiness when it creates repeated and structured opportunities for the dyad to work with strategic issues, reflect on its interaction, adjust its strategizing, and reconnect this work to municipal practice.

This causal logic is processual rather than immediate. Strategic readiness is not theorized as a discrete individual skill or as knowledge that can be transferred directly from a training room to an organizational outcome. It is theorized as a relational form of strategizing that may develop when patterns of interaction become more systematic, coordinated, and collaborative over time. The theoretical contribution of the dissertation is to specify why leadership training can be

expected to matter for strategic readiness only insofar as it works on the dyad's strategizing as practice.

This theoretical conclusion also clarifies the boundaries of the argument. Strategic readiness provides a concept for theorizing the strategic dyad's systematic, coordinated, and collaborative strategizing under complexity and turbulence. The theoretical conclusion is therefore precise in scope: Executive public strategizing under complexity and turbulence at the political-administrative apex can be conceptualized as strategic readiness, and dyad-based leadership training can be theorized as relevant to this form of strategic readiness when it is directed at the dyad's repeated, reflective, and practice-near strategizing.

15.5 Conclusion on leadership training

The conclusion on leadership training concerns leadership training as delivered in this study. The dissertation examines a specific dyad-based training program directed at the mayor-municipal CEO dyad and implemented in a small elite-level municipal field setting. The relevant conclusion concerns dyad-based leadership training within the designed comparison.

The first conclusion is that the dissertation specifies leadership training as an analytically tractable intervention in executive public strategizing. The implemented training was specified as dyad-based, practice-near, cumulative, and horizon oriented, and it was directed at the strategic dyad's strategizing. Its didactic architecture used strategic cases, modules, touchdowns, feedback, diary work, and movement between the training setting and municipal practice to create repeated opportunities for the dyad to work with strategic issues. In this sense, the dissertation contributes by showing how the theoretical argument about strategic readiness can be translated into a concrete training format.

The second conclusion is that the training was theoretically aligned with the outcome it was intended to influence. Strategic readiness was conceptualized as the strategic dyad's systematic, coordinated, and collaborative strategizing. The training was correspondingly directed at the dyad's strategizing through 'relation', 'dialogue', 'develop', and 'doing' as didactic domains. Systematic, coordinated, and collaborative strategizing remained the analytical dimensions through which change in strategic readiness was examined. The training domains were the didactic entry points through which the intervention worked on strategizing activities, while the dimensions of strategic readiness provided the analytical structure through which change was interpreted.

The empirical conclusion on leadership training as delivered is differentiated. Within the designed comparison, the dissertation indicates that dyad-based leadership training has an effect on strategic readiness but not a uniform positive one.

This differentiated result clarifies the status of the causal argument. The findings are consistent with the part of the theoretical expectation that leadership training as delivered may contribute to more positive change in dyad-reported

and director-perceived strategic readiness. At the same time, the city councilor-perceived result shows that the estimated effect is not positive across all respondent-specific measures. The delivered training was examined as an integrated intervention. The analysis estimates training/no-training differences in change associated with assignment to leadership training as delivered. The contribution of individual training elements remains theoretically specified rather than empirically isolated in the analysis.

The findings warrant a specific conclusion about leadership training as delivered. Dyad-based leadership training can be specified, implemented, documented, and examined as an intervention directed at strategic readiness in the mayor-municipal CEO dyad. In this study, however, the estimated effect of the training is respondent-specific and not uniformly positive across respondent positions.

15.6 Methodological, measurement-related, and empirical contribution

The methodological contribution is that the dissertation provides a design for examining leadership training as delivered in this study and change in strategic readiness in a difficult-to-access elite-level municipal field. The study converted practice-based field access - made possible by my professional role as an adviser to mayors and municipal CEOs - into a structured comparative design. Participating municipalities were assigned to training and no-training, strategic readiness was measured before and after the training period, the comparison was stratified by municipal size, the delivered intervention was documented, and the results were reported in a way that protected respondents and municipalities from recognition. The dissertation thereby provides a design for examining change in a relational executive leadership unit under field conditions where access, confidentiality, recognition risk, and implementation have to be handled as part of the research design.

The measurement-related contribution is that the dissertation operationalizes one systematized concept of strategic readiness through three respondent-specific measurement specifications and corresponding measures. These measures are linked to the three preregistered hypotheses: strategic readiness reported by the dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. The measurement strategy preserves two distinctions at the same time: the distinction between the respondent-specific measures linked to H1, H2, and H3 and the distinction between systematic, coordinated, and collaborative strategizing as the three dimensions of strategic readiness. It makes it possible to examine whether the same training is associated with different changes in strategic readiness depending on whether strategic readiness is reported from within the dyad, perceived from the director respondent position, or perceived from the city councilor respondent position.

The measurement work also contributes by aligning the analytical sequence with the conceptual structure of the dissertation. The overall indices provide the primary basis for evaluating the preregistered hypotheses. The dimension scale analyses examine robustness across systematic, coordinated, and collaborative strategizing. The role-based analysis specifies the dyad-reported result in relation to H1's wording about both the mayor and the municipal CEO. The item-level analysis examines robustness across the retained items used to construct the final dimension scales. The contribution is therefore a measurement strategy that connects the concept of strategic readiness, the three preregistered hypotheses, the respondent-specific measures, the three dimensions, and the comparative design.

The empirical contribution is the design-based comparative evidence produced through this design and measurement strategy. The dissertation provides evidence from a small elite-level municipal study of training/no-training differences in change in strategic readiness. The empirical result is differentiated: The estimated effect is positive for dyad-reported and director-perceived strategic readiness, and negative for city councilor-perceived strategic readiness. The empirical contribution is thus a respondent-specific pattern of estimated change rather than evidence of a uniform positive training effect.

Taken together, the dissertation contributes a conceptually grounded, methodologically structured, and empirically differentiated account of the relationship between dyad-based leadership training as delivered in this study and strategic readiness in the mayor-municipal CEO dyad. The contribution lies in connecting field access, comparative design, respondent-specific measurement, and design-based evidence in a field where executive public strategizing is difficult to study systematically.

16. Perspectives

Chapter 16 develops the perspectives that follow from the dissertation's conceptual, methodological, and empirical contributions. The dissertation has shown how strategic readiness can be used to study executive public strategizing as systematic, coordinated, and collaborative strategizing in the mayor-municipal CEO dyad. It has also shown that dyad-based leadership training as delivered in this study indicates an effect on strategic readiness but not a uniform positive one. Within the designed comparison, the estimated effect differs across respondent-specific measures.

The chapter develops these perspectives in five steps. It first discusses the theoretical perspectives opened by strategic readiness, the strategic dyad, strategic horizons, and respondent position. It then turns to methodological and measurement perspectives, empirical perspectives, practical implications, and future research before closing with final perspectives on executive public strategizing under complexity and turbulence.

16.1 Theoretical perspectives

The theoretical perspective opened by the dissertation is that executive public strategizing can be studied as relational, dimensional, and oriented work at the political-administrative apex. Strategic readiness provides the concept for this work; the strategic dyad specifies the relational unit; systematic, coordinated, and collaborative strategizing specify the form of strategizing; and strategic horizons specify how strategizing is oriented under complexity and turbulence. The respondent-specific results add a further theoretical question: How dyadic is strategizing encountered from positions outside the dyad?

The first theoretical perspective concerns strategic readiness as a concept for executive public strategizing. The concept directs attention to the work through which strategic issues are made intelligible, action is aligned, and direction is sustained in practice. This perspective supplements public strategy research by specifying the joint strategizing performed within the mayor-municipal CEO relation. Strategic readiness does not replace concepts of strategic planning, strategic management, strategic content, or strategy-as-practice. It adds a more specified concept for examining how executive public strategizing is performed in a context of complexity and turbulence, with social acceleration as a temporal background condition.

The second theoretical perspective concerns the strategic dyad as a relational unit under continued role differentiation. The mayor and the municipal CEO remain institutionally different actors. The mayor carries political mandate, democratic legitimacy, and responsibility for political direction. The municipal CEO carries administrative responsibility, organizational knowledge, and

responsibility for the administrative organization. Strategic readiness does not dissolve this difference. It provides a way to theorize how joint strategizing can take place across roles. This perspective is relevant for further theoretical work on the political-administrative apex because it does not treat the dyad as two separate role holders acting in parallel nor as a merged executive actor. It treats the dyad as a relational unit of strategizing in which institutional difference remains part of the work.

This perspective also raises a broader theoretical question about other role-differentiated dyadic relations in public organizations. The dissertation develops and examines strategic readiness in the mayor-municipal CEO dyad, and its empirical evidence is limited to that relation. However, the underlying conceptual question may also be relevant in other settings where two institutionally different actors have to engage jointly with strategic issues under complexity and turbulence. Extending strategic readiness to such settings would require respecifying the relational unit, the relevant role differentiation, and the respondent positions through which strategizing can be examined.

The third theoretical perspective concerns the dimensional structure of strategic readiness. Systematic, coordinated, and collaborative strategizing specify the forms of strategizing through which the strategic dyad can sustain direction under complexity and turbulence. Systematic strategizing concerns continuity in how strategic issues are maintained, revisited, followed up on, and handled over time. Coordinated strategizing concerns alignment across roles, expectations, interpretations, attention, timing, and action. Collaborative strategizing concerns the joint development of interpretations, strategic possibilities, and possible directions. The theoretical perspective is therefore that executive public strategizing under complexity and turbulence can be specified as work across time, across actors, and across meaning. Further theoretical work can use these dimensions to examine forms of strategizing relevant for the strategic dyad in a context of complexity and turbulence.

The fourth theoretical perspective concerns strategic horizons. The horizon-oriented specification of strategic readiness shows how the dyad's strategizing is oriented when strategic issues are grasped and addressed through different combinations of future knowability and issue-specific organizational readiness. This is theoretically important because complexity and turbulence are not only background conditions for executive public strategizing; they also shape how strategic issues are selected, interpreted, prepared, revisited, and recalibrated. Strategic horizons provide a language for examining how the strategic dyad may work differently with issues depending on whether the future appears known or unknown, and whether the organization appears ready or unready to address the issue.

Taken together, strategic readiness provides the conceptual language, the strategic dyad provides the relational unit, the three dimensions specify the form of strategizing, and strategic horizons specify its orientation under complexity

and turbulence. The respondent-specific results add a further theoretical question about how dyadic strategizing is encountered from outside the dyad. In this way, the theoretical contribution remains close to the dissertation's conceptual architecture while opening a focused agenda for further theoretical development.

16.2 Methodological and measurement perspectives

The methodological and measurement perspectives opened by the dissertation concern how relational executive public strategizing can be examined when the empirical field is difficult to access, the relevant unit is relational, and the outcome has to be measured through respondent-specific positions. The central methodological perspective is that field access becomes analytically useful when it is organized into comparison, documentation, and measurement. In this dissertation, access to mayor-municipal CEO dyads was given analytical structure through case selection, stratification, randomized contact order, assignment after baseline measurement, implementation documentation, and respondent-specific measurement.

The first methodological perspective concerns field access as part of research design. Studies of executive public leadership often depend on actors who are few, recognizable, institutionally central, and difficult to recruit. This creates a methodological challenge when the empirical object is relational rather than individual. In this dissertation, the mayor-municipal CEO dyad is the unit through which strategic readiness is conceptualized and the target at which leadership training is directed. The methodological perspective is that studies of relational executive leadership can benefit from designs that connect access, comparison, confidentiality, and implementation documentation. This is particularly important when the research depends on participation from elite actors whose participation cannot be assumed.

The second methodological perspective concerns preregistration and implementation documentation in practice-embedded intervention studies. The dissertation was conducted in a field where the researcher held a professional position, the intervention was practice near, and several analytical choices required judgment. Under such conditions, preregistration supports methodological discipline by fixing the research question, hypotheses, training architecture, measurement strategy, and planned analytical strategy before the empirical results are known. It clarifies the relation between preregistered expectations and procedures, later conceptual specification, and the analyses used to evaluate the hypotheses.

Implementation documentation adds a related perspective. Dyad-based leadership training is delivered through interaction, cases, feedback, trainer judgment, local examples, diary work, touchdowns, and participant uptake between training activities. The dissertation distinguishes between planned leadership training, leadership training as delivered, delivery-related variation, and

empirical outcomes. This distinction matters because the empirical comparison can only be interpreted clearly when the independent variable is documented. The methodological perspective is that practice-embedded leadership training studies should treat intervention documentation as part of the evidentiary structure.

The measurement perspective concerns the relation between theoretical object, hypotheses, and respondent position. Strategic readiness is one systematized concept operationalized through three respondent-specific measurement specifications and corresponding measures: strategic readiness reported by the dyad, strategic readiness perceived by directors, and strategic readiness perceived by city councilors. These measures are linked to H1, H2, and H3 and to analytically distinct rating positions. The perspective is that respondent positions should be justified by the theoretical object and the hypotheses. When the phenomenon concerns dyadic strategizing and how this strategizing is rated from positions inside and outside the dyad, the measurement strategy must preserve these distinctions.

This perspective is especially relevant when the outcome is relational. The dyad-reported measure is a self-rating of the dyad's own systematic, coordinated, and collaborative strategizing. The three questionnaire versions support respondent-specific measures linked to the same strategic readiness construct while preserving the distinction between the hypothesis-linked rating positions. This follows the measurement strategy developed earlier in the dissertation, where the questionnaire versions are structurally parallel but adapted to the respondent position.

The dimension-specific structure of strategic readiness adds a further measurement perspective. The overall indices provide the primary basis for evaluating the preregistered hypotheses because the hypotheses concern strategic readiness as the overall construct. The dimension scale analyses then examine whether the overall index results are robust across systematic, coordinated, and collaborative strategizing, using robustness in the sense defined in Chapter 12: consistency in the direction of the estimated training/no-training difference in change across the three theory-specified dimension scales. This analytical sequence preserves strategic readiness as the level at which the hypothesis evaluation is made while retaining the three dimensions as the structure through which strategic readiness is operationalized and interpreted.

The item-level analysis adds a further measurement perspective. It examines whether the dimension scale results are robust across the retained items used to construct the final scales, using the descriptive two-thirds criterion specified in Chapter 13. This is especially relevant when a concept is newly developed and operationalized through theory-guided questionnaire construction. In this dissertation, the item-level analysis showed how a newly developed measure can be examined for robustness across retained items after the dimension scales have been constructed. Further validation of strategic readiness can examine whether

the item structure, dimension scales, and respondent-specific measures hold across larger samples, other types of public organizations, other municipal settings, and other countries.

A final methodological perspective concerns the relation between questionnaire measures and process documentation. The dissertation used video recordings, diaries, photographs, touchdowns, training materials, and implementation documentation to document leadership training as delivered. These materials supported transparency about the intervention, while the outcome comparison rested on questionnaire-based respondent-specific measures. This separation is important because the process material concerns identifiable elite participants in a small number of trained municipalities. Using such material as systematic process data would require a reporting strategy able to handle recognition risk while still making the analysis transparent. Future studies designed around process analysis could use similar material to examine how strategic issues are opened, framed, maintained, developed, and followed up during dyadic strategizing.

Taken together, the dissertation offers a design and measurement strategy for studying relational executive leadership when the empirical unit is difficult to access, the intervention is practice embedded, and the outcome has to be examined across theoretically specified respondent positions and dimensions. Its contribution lies in showing how access, comparison, preregistration, implementation documentation, respondent-specific measurement, and theory-guided scale construction can be connected in one empirical design.

16.3 Empirical perspectives

The empirical perspective opened by the dissertation concerns strategic readiness as a measured, respondent-specific, and temporally situated phenomenon. The empirical contribution is not only the estimated effect of leadership training as delivered within the designed comparison, but also that the direction and consistency of this effect differ depending on the respondent-specific measure through which strategic readiness is examined.

The first empirical perspective concerns the temporal character of strategic readiness. The empirical design measured change from before to after the training, and as a result, the estimates capture change within this specific measurement window. This matters because strategic readiness concerns recurrent strategizing, ongoing alignment, and continued joint development of direction. The empirical result should therefore be understood as measured change during the study period, rather than as a complete account of how strategic readiness develops, stabilizes, weakens, or changes direction over longer periods.

This temporal perspective also clarifies the role of baseline placement and no-training municipalities. Some dyads may already engage in forms of systematic, coordinated, and collaborative strategizing before leadership training is introduced, and these forms of strategizing may be captured in baseline ratings of

strategic readiness. Such strategizing may also change through ordinary political and administrative work, local strategic initiatives, or ongoing municipal processes. The no-training municipalities therefore have an active empirical role in the study. They provide the comparative reference for the training/no-training difference in change, and their development shows that the practices captured by strategic readiness can change during the study period without the delivered leadership training.

Taken together, the empirical perspective is that strategic readiness should be treated as a measured, respondent-specific, and temporally situated phenomenon. The dissertation shows that change in strategic readiness can differ depending on whether it is reported from within the dyad, perceived by directors, or perceived by city councilors. It also shows that strategizing practices captured by strategic readiness can be rated at baseline and can change during the study period without the delivered leadership training. The empirical contribution is therefore not a uniform training result but a differentiated account of measured change across respondent positions.

16.4 Practical implications

The practical implications of the dissertation concern how dyad-based leadership training can be designed and evaluated more precisely. The study does not provide a general model for leadership training in municipalities. It provides a design-based and respondent-specific basis for aligning the target of training, the scope of intended change, and the measures used to evaluate that change.

The first practical implication is that the target of training should be aligned with the intended change. When the practical ambition is to work with the dyad's own systematic, coordinated, and collaborative strategizing, a dyad-based format can be a coherent design choice. It allows the mayor and the municipal CEO to work together on strategic issues, reflect on their interaction, use shared tools, receive feedback, and reconnect training activities to municipal practice. Dyad-based leadership training is most directly relevant when the intended change concerns the dyad's joint strategizing.

The second practical implication concerns a possible trade-off in dyad-based leadership training. The city councilor-perceived result should not be interpreted as an argument against training the mayor-municipal CEO dyad. If the practical ambition is to work with the dyad's own systematic, coordinated, and collaborative strategizing, a dyad-based format remains a coherent design choice. The trade-off is different: Training that is directed at strengthening the dyad's strategizing may be associated with more positive change in dyad-reported and director-perceived strategic readiness, while city councilor-perceived strategic readiness changes in the opposite direction.

This means that dyad-based leadership training involves a practical design choice. A training program may deliberately concentrate on the dyad as the focal

relational unit of executive strategizing. Such concentration can be justified when the intended change concerns how the mayor and the municipal CEO work together on strategic issues. At the same time, the city councilor-perceived result indicates that positive change in dyad-reported and director-perceived strategic readiness cannot be assumed to correspond to positive change in city councilor-perceived strategic readiness. The practical implication is not to avoid dyad-based training but to make explicit whether the intended change is limited to the dyad's own strategizing or also includes how this strategizing is assessed from political respondent positions.

If city councilor-perceived strategic readiness is part of the practical ambition, the trade-off must be addressed in the design. This may require attention to how strategic issues are connected to elected political work, how the dyad's strategizing is related to political processes, and how city councilors perceive the dyad's strategic readiness. The dissertation does not establish that such design choices would produce a positive city councilor-perceived result. It shows why positive city councilor-perceived change cannot be assumed as a by-product of training the dyad.

The third practical implication concerns evaluation. Dyad-based leadership training should be evaluated in relation to the intended change. If the training is intended to support the dyad's own strategizing, dyad-reported measures are directly relevant. If the training is intended to affect how directors perceive the dyad's strategizing, director-perceived measures are relevant. If the training is intended to affect how elected politicians assess the dyad's strategizing, city councilor-perceived measures are relevant. The practical point is not that one respondent position is more valid than the others, but that each respondent-specific measure answers a different practical evaluation question.

The fourth practical implication is that training domains and outcome dimensions should be kept analytically separate. This distinction is practically important because training activities should not be treated as direct evidence of outcome change. A dyad may work actively with 'relation', 'dialogue', 'develop', and 'doing' during training, but the practical evaluation still has to examine whether reported or perceived strategic readiness changes in the relevant respondent-specific measures.

Taken together, the practical implication is one of alignment. Dyad-based leadership training remains most directly relevant when the intended change concerns dyadic strategizing. If practical ambitions extend beyond the dyad, the training design and evaluation measures must correspond to those ambitions. The city councilor-perceived result shows why this alignment matters.

16.5 Future research

Future research can extend the dissertation's contribution in three directions. The first concerns the temporal development of strategic readiness beyond the

before/after measurement used in this study. The second concerns process-oriented studies of enacted dyadic strategizing. The third concerns how city councilors encounter, interpret, and rate the strategic dyad's work with strategic issues. These directions follow from the dissertation's central distinctions: strategic readiness as systematic, coordinated, and collaborative strategizing; the mayor-municipal CEO dyad as the relational unit; and respondent-specific measures as analytically distinct ways of examining change.

The first direction concerns the temporal development of strategic readiness. Strategic readiness is conceptualized as systematic, coordinated, and collaborative strategizing over time, while this study examines change within one before/after measurement window. Future studies can examine whether measured changes are sustained, delayed, reversed, or further developed after the initial post-training measurement. Longer follow-up designs would also make it possible to examine whether dyad-reported, director-perceived, and city councilor-perceived strategic readiness develop at different temporal rhythms.

The second direction concerns process data and enacted dyadic strategizing. In this dissertation, video recordings, diaries, photographs, touchdowns, training materials, and implementation documentation were used to document leadership training as delivered. Future studies can make process analysis a primary part of the research design. Such studies could examine how mayor-municipal CEO dyads open, frame, maintain, revisit, develop, and follow up strategic issues during and between training activities. This would add an enacted practice layer to the reported and perceived measures used in this dissertation and make it possible to examine the mechanisms through which shared orientation, repeated practice, reflection and adjustment, and application in municipal practice become part of dyadic strategizing.

The third direction concerns the city councilor-perceived result. The dissertation establishes a negative training/no-training difference in change in city councilor-perceived strategic readiness, but it does not identify the mechanism behind that result. Future research could treat possible explanations of this opposite-direction result as expectations to be examined in new studies. Such studies could examine the timing of city councilor involvement, how strategic issues enter committee and city council processes, the information and interactions on which city councilors base their assessments, local political context, response composition, and local political or administrative developments during the study period. These possibilities should be examined as empirical questions rather than be treated as mechanisms established by this dissertation.

The city councilor-perceived result concerns how elected political actors assess the dyad's strategic readiness. It should not be interpreted as evidence that the dissertation has identified a specific political mechanism or as evidence that city councilors themselves were affected by training. Future studies could combine city councilor-perceived measures with qualitative or processual evidence about political involvement, timing, issue trajectories, and interaction between

the dyad and elected politicians. This would make it possible to examine the processes behind the city councilor-perceived change pattern without relying on questionnaire data alone.

These three directions are connected. Longer follow ups can show how strategic readiness develops over time. Process analysis can show how dyadic strategizing is enacted in practice. Studies of city councilor-perceived strategic readiness can show how dyadic strategizing is assessed from elected political positions outside the dyad. Together, these directions extend the dissertation's contribution while preserving its core distinctions between concept, relational unit, respondent position, and measurement.

16.6 Final perspectives

The final perspective of the dissertation is that executive public strategizing under complexity and turbulence can be studied as systematic, coordinated, and collaborative strategizing in a differentiated political-administrative relation. The dissertation began with a practical and theoretical motivation: to examine how mayors and municipal CEOs work strategically together when the direction, consequences, and conditions of strategic issues are not fully settled. Strategic readiness was developed to make this form of joint strategic work conceptually, theoretically, methodologically, and empirically examinable.

The perspective is not that strategic readiness provides a complete account of executive public leadership. It is a concept for a specific form of strategizing: the strategic dyad's systematic, coordinated, and collaborative work with strategic issues under complexity and turbulence. This makes it possible to study executive public strategizing as relational work across institutional differences; as dimensional work across systematic, coordinated, and collaborative strategizing; and as oriented work across strategic horizons. The concept opens a way to examine how strategic direction is sustained when strategic issues remain unsettled.

The dissertation also opens a cautious perspective beyond the mayor-municipal CEO dyad. The empirical evidence concerns this specific political-administrative relation in Danish municipalities. However, the conceptual architecture may be relevant for other role-differentiated dyadic relations in public organizations where two institutionally different actors must engage jointly with strategic issues under complexity and turbulence. Such extensions would require theoretical respecification of the relational unit, the relevant role differentiation, and the respondent positions through which strategizing can be examined.

The final perspective is therefore one of specification rather than closure. The dissertation specifies strategic readiness as a concept, dyad-based leadership training as an intervention, and respondent-specific measures as a way of examining change in strategic readiness. It also shows that these specifications matter for what can be concluded. Leadership training as delivered indicates an effect on strategic readiness but not a uniform positive one. The direction and consistency

of that estimated effect depend on respondent position, measurement, and design. The contribution of the dissertation lies in making these distinctions explicit and in showing how they can structure further research and practice on executive public strategizing under complexity and turbulence.

English summary

This dissertation examines the effect of leadership training directed at the mayor-municipal CEO dyad on strategic readiness within a comparative small-N design. The point of departure is that executive public leadership in municipalities takes place under conditions of complexity and turbulence, with social acceleration as the temporal background. Municipal strategic issues rarely appear as isolated, stable, or purely technical problems. Budget pressure, demographic change, recruitment challenges, organizational capacity, political disagreement, welfare expectations, and public legitimacy are often intertwined. They connect interdependent actors, divergent interpretations, institutional arrangements, and partly knowable consequences, while demands, support, and response options may change under compressed time horizons. Under such conditions, the political and administrative apex of the municipality must interpret strategic issues, align political and administrative expectations, develop possible directions, and sustain direction while the issue itself is still being clarified.

The dissertation develops the concept of strategic readiness to make this form of executive strategic work available as a research object. Strategic readiness is defined as the strategic dyad's systematic, coordinated, and collaborative strategizing. The strategic dyad denotes the mayor and the municipal CEO treated as the focal relational unit when their joint strategizing is examined. Systematic strategizing refers to the recurrent, structured, and sustained handling of strategic issues over time. Coordinated strategizing refers to the alignment of roles, expectations, understandings, attention, timing, and action in the strategic dyad's work with strategic issues. Collaborative strategizing refers to the joint development of interpretations, strategic possibilities, and possible directions through joint interaction. Strategic readiness is therefore not a general organizational capacity measure, but a concept for how the mayor and the municipal CEO work strategically together when strategic issues are complex, turbulent, and not yet fully grasped. Strategic horizons provide the issue-specific orienting specification of the concept by relating future knowability to issue-specific organizational readiness.

The theoretical argument links leadership training to strategic readiness. Leadership training is theorized as a way of working deliberately with the strategic dyad's shared orientation, repeated practice, reflection and adjustment, and application in municipal practice. The planned leadership training program operationalized this argument through a dyad-based training architecture. The training worked with four didactic domains: 'relation', 'dialogue', 'develop', and 'doing'. These domains were the didactic entry points for working with the dyad's strategizing. The training was delivered through three modules, between-module

activities, diary work, touchdowns, feedback, strategic cases, shared tools, and movement between training sessions and the dyad's own municipal practice.

The empirical study was designed as a comparative leadership training study in Danish municipalities. Access to the mayor-municipal CEO apex is difficult because the actors are politically and administratively central, publicly recognizable, and involved in sensitive strategic work. The project was conducted as an industrial PhD in Komponent, and the author's professional role made field access possible while also requiring explicit design handling. The research design transformed this access into a structured comparison through an MSSD-informed delimitation of the municipal eligibility frame, stratification by municipal size, randomized contact order, random assignment within strata after baseline measurement, implementation documentation, and a reporting strategy designed to protect confidentiality and reduce recognition risk.

Strategic readiness was examined through three respondent-specific measures of the same systematized concept. The first was strategic readiness reported by the strategic dyad, based on separate questionnaire responses from mayors and municipal CEOs. The second was strategic readiness perceived by directors, based on responses from municipal directors. The third was strategic readiness perceived by city councilors, based on responses from elected city councilors. The three measures were analyzed separately. They were not treated as interchangeable assessments of the same experience, but as ratings from distinct institutional respondent positions. The mayor and the municipal CEO provided separate reports from positions within the strategic dyad, while directors and city councilors assessed the dyad's strategizing from positions outside the dyad.

The measurement construction followed the conceptual structure of strategic readiness. Questionnaire items were organized into theory-specified item pools for systematic, coordinated, and collaborative strategizing. Factor-analytic diagnostics and substantive item evaluation were used to assess the coherence of the item pools and construct final dimension scales. For each respondent-specific measure, the three dimension scales were combined into an overall index. The empirical analysis then estimated training/no-training differences in change from before to after the training period at the municipal level.

The empirical results are differentiated. Strategic readiness reported by the dyad changed more positively in training municipalities than in no-training municipalities at the overall index level. The result provides some support for H1 within the designed comparison, but the support is moderate and should be interpreted with caution, especially in relation to collaborative strategizing. Strategic readiness perceived by directors provides the clearest positive result. The director-perceived result is positive at the overall index level; positive across systematic, coordinated, and collaborative strategizing; positive across municipal size strata; and directionally consistent across retained items. Strategic readiness perceived by city councilors changed in the opposite direction of the preregistered expectation. The result shows a negative estimated difference in change between

training municipalities and no-training municipalities in city councilors' assessment of the dyad's strategic readiness.

The dissertation contributes in four ways. Conceptually, it develops strategic readiness as a concept for systematic, coordinated, and collaborative strategizing in the mayor-municipal CEO dyad. Theoretically, it specifies a causal argument linking leadership training to change in strategic readiness through shared orientation, repeated practice, reflection and adjustment, and application in municipal practice. Methodologically and in relation to measurement, the dissertation develops respondent-specific measures of strategic readiness and demonstrates how reports from within the strategic dyad and observer ratings from distinct institutional positions can be kept analytically separate in an elite-level public leadership study. Empirically, it provides design-based comparative evidence from Danish municipalities showing that dyad-based leadership training indicates an effect on strategic readiness but not a uniform positive one across respondent positions.

The findings should be interpreted within the scope of the design. The study is a small-N comparative study in a difficult-to-access municipal field. The estimates concern training/no-training differences in change among participating municipalities and are not interpreted as population-average effects. The study does not isolate the effects of individual training elements, nor does it directly test the theoretical mechanisms separately. It examines leadership training as delivered in a practice-embedded setting and strategic readiness as reported or perceived through respondent-specific questionnaire measures. The overall conclusion is that dyad-based leadership training indicates an effect on strategic readiness but not a uniform positive effect. Within the designed comparison, the estimated effect is positive for strategic readiness reported by the dyad and perceived by directors, and negative for strategic readiness perceived by city councilors. This conclusion concerns training/no-training differences in change for leadership training as delivered and is limited in certainty and generalizability by the small-N, and practice-embedded design. Confidentiality and recognition protection limit the level of case-specific detail that can be reported.

Denne afhandling undersøger, hvilken effekt ledertræning målrettet den strategiske dyade mellem borgmesteren og kommunaldirektøren, har på strategisk parathed i et komparativt small-N-design. Udgangspunktet er, at kommunal topleddelse udøves under kompleksitet og turbulens med social acceleration som baggrund. Under sådanne vilkår fremstår kommunale strategiske problemstillinger sjældent som klart afgrænsede og stabile. Budgetpres, demografiske forandringer, rekrutteringsudfordringer, organisatorisk kapacitet, politisk uenighed, velfærdsforventninger og legitimitet i offentligheden er ofte tæt forbundne. Problemstillingerne forbinder indbyrdes afhængige aktører, forskellige fortolkninger, institutionelle rammer og delvist erkendelige konsekvenser, samtidig med at krav, støtte og handlemuligheder kan ændre sig under komprimerede tidshorisonter.

Afhandlingen udvikler begrebet strategisk parathed for at gøre denne form for strategisk arbejde i den kommunale topleddelse til et afgrænset forskningsobjekt. Strategisk parathed defineres som den strategiske dyades systematiske, koordinerede og kollaborative strategiarbejde. Den strategiske dyade betegner borgmesteren og kommunaldirektøren betragtet som den fokale relationelle enhed, når deres fælles strategiarbejde undersøges. Systematisk strategiarbejde vedrører den tilbagevendende, strukturerede og vedvarende håndtering af strategiske problemstillinger over tid. Koordineret strategiarbejde vedrører afstemningen af roller, forventninger, fortolkninger, opmærksomhed, timing og handling i dyadens arbejde med strategiske problemstillinger. Kollaborativt strategiarbejde vedrører den fælles udvikling af fortolkninger, strategiske muligheder og mulige retninger gennem fælles interaktion. Strategisk parathed er således ikke et generelt mål for kommunens organisatoriske kapacitet. Begrebet betegner den måde, hvorpå borgmesteren og kommunaldirektøren arbejder strategisk sammen, når problemstillingerne er komplekse og turbulente og endnu ikke fuldt ud forstået eller afgrænset. De strategiske horisonter giver begrebet en problemstillingsspecifik orientering ved at forbinde fremtidens erkendelighed med problem-specifik organisatorisk parathed.

Det teoretiske argument forbinder ledertræning med ændringer i strategisk parathed gennem fire teoretiske mekanismer: fælles orientering, gentagen praksis, refleksion og justering samt anvendelse i kommunal praksis. Det planlagte træningsprogram omsatte dette argument til et dyadebaseret og praksisnært træningsforløb. Træningen var organiseret omkring de fire didaktiske domæner *'relation'*, *'dialogue'*, *'develop'* og *'doing'*. Domænerne er didaktiske indgange til arbejdet med dyadens strategiarbejde. Træningsforløbet omfattede tre moduler, aktiviteter mellem modulerne, logbogsarbejde, opfølgingsaktiviteter i form af

såkaldte touchdowns, feedback, strategiske cases, fælles redskaber og en løbende vekslen mellem træningsrummet og dyadens egen kommunale praksis.

Det empiriske studie blev tilrettelagt som et komparativt ledertræningsstudie i danske kommuner. Adgangen til den politisk-administrative top er vanskelig, fordi borgmestre og kommunaldirektører har centrale politiske og administrative positioner, er offentligt kendte og arbejder med strategisk følsomme problemstillinger. Projektet blev gennemført som et erhvervs-ph.d.-projekt i Komponent. Forskerens professionelle position muliggjorde adgangen til feltet, men gjorde det samtidig nødvendigt at håndtere denne position eksplicit i forskningsdesignet. Forskningsdesignet omsatte denne adgang til en struktureret sammenligning gennem en MSSD-informeret afgrænsning af den kommunale udvælgelsesramme, stratificering efter kommunistørrelse, randomiseret kontaktorden, randomiseret tildeling inden for strata efter formålingen, implementeringsdokumentation og en rapporteringsstrategi med vægt på fortrolighed og beskyttelse mod genkendelse.

Strategisk parathed blev undersøgt gennem tre respondentspecifikke mål af det samme systematiserede begreb. Det første mål var strategisk parathed rapporteret af den strategiske dyade og byggede på separate spørgeskemabesvarelser fra borgmestre og kommunaldirektører. Det andet var strategisk parathed vurderet af direktører, og det tredje var strategisk parathed vurderet af kommunalpolitikere. De tre mål blev analyseret særskilt. De blev ikke behandlet som udskiftelige vurderinger af den samme erfaring, men som vurderinger fra forskellige institutionelle respondentpositioner. Borgmestrene og kommunaldirektørerne afgav separate rapporter fra positioner inden for den strategiske dyade, mens direktører og kommunalpolitikere vurderede dyadens strategiarbejde fra positioner uden for dyaden.

Målekonstruktionen fulgte den begrebslige opbygning af strategisk parathed. Spørgeskemaets items blev organiseret i teoribaserede itempuljer for systematisk, koordineret og kollaborativt strategiarbejde. Faktoranalytiske diagnostikker og en substantiel, teoribaseret vurdering af de enkelte items blev anvendt til at undersøge itempuljernes interne sammenhæng og fastlægge de endelige dimensionsskalaer. For hvert respondentspecifikt mål blev de tre dimensionsskalaer samlet i ét overordnet indeks. Den empiriske analyse estimerede derefter på kommuneniveau forskellen mellem ændringen fra før- til eftermålingen i kommuner med træning og den tilsvarende ændring i kommuner uden træning.

Resultaterne tegner et differentieret billede. For strategisk parathed rapporteret fra den strategiske dyade var ændringen på det samlede indeks mere positiv i træningskommunerne end i kommunerne der ikke deltog i træningsforløbet. Resultatet giver nogen støtte til H1 inden for det tilrettelagte komparative design, men støtten er moderat og bør fortolkes med forsigtighed, især hvad angår kollaborativt strategiarbejde. Strategisk parathed vurderet af direktører giver det tydeligste positive resultat. Direktørernes resultat er positivt på det samlede indeks, positivt på tværs af systematisk, koordineret og kollaborativt strategiarbejde og

positivt i alle tre strata. Den positive retning går desuden igen på tværs af de endeligt inkluderede items. For strategisk parathed vurderet af kommunalpolitikere gik ændringen i modsat retning af den præregistrerede forventning. Den estimerede forskel i ændring mellem kommuner med og uden træning var negativ i kommunalpolitikernes vurdering af dyadens strategiske parathed.

Afhandlingen yder fire bidrag. Begrebsligt udvikler den strategisk parathed som et begreb for den strategiske dyades systematiske, koordinerede og kollaborative strategiarbejde. Teoretisk specificerer den et kausalt argument, der forbinder ledertræning med ændringer i strategisk parathed gennem fælles orientering, gentagen praksis, refleksion og justering samt anvendelsen af det lærte i den kommunale praksis. Metodisk og målemæssigt udvikler afhandlingen respondentspecifikke mål for strategisk parathed og viser, hvordan rapporter fra aktørerne i den strategiske dyade og vurderinger fra forskellige institutionelle positioner uden for dyaden kan holdes analytisk adskilt i et studie af kommunal topledelse. Empirisk bidrager afhandlingen med en designbaseret sammenligning mellem danske kommuner, som viser, at dyadebaseret ledertræning peger på differentieret effekt på strategisk parathed.

Resultaterne skal fortolkes inden for det komparative design og scope. Studiet omfatter få kommuner og er gennemført i et vanskeligt tilgængeligt felt på kommunalt topniveau. Estimerne vedrører forskelle i ændring mellem kommuner med og uden træning blandt de kommuner, der deltog i studiet. De fortolkes ikke som gennemsnitlige effekter i den samlede population af kommuner. Studiet kan hverken udskille virkningen af de enkelte elementer i træningsforløbet eller afprøve de teoretiske mekanismer hver for sig. Ledertræningen undersøges som en samlet intervention, sådan som den blev gennemført i en praksisforankret kommunal kontekst, mens strategisk parathed undersøges gennem respondent-specifikke, spørgeskemabaserede mål.

Afhandlingens samlede konklusion er, at dyadebaseret ledertræning peger på en effekt på strategisk parathed, men ikke på en ensartet positiv effekt. Inden for den tilrettelagte sammenligning er den estimerede effekt positiv for strategisk parathed rapporteret fra den strategiske dyade og vurderet af direktører, mens den er negativ for strategisk parathed vurderet af kommunalpolitikere. Konklusionen vedrører forskelle i ændring mellem kommuner med og uden træning for ledertræningen som gennemført. Sikkerheden og generaliserbarheden er begrænset af studiets small-N-design praksisforankrede design og karakter. Hensynet til fortrolighed og beskyttelse mod genkendelse begrænser den detaljeringsgrad, hvor med enkeltkommuner, dyader og forløb kan rapporteres.

Declaration of use of generative AI and AI-assisted tools

During the preparation of this dissertation, I used ChatGPT and DeepL as writing and editorial support. The tools were used to discuss structure, identify inconsistencies, improve language, and support translation. ChatGPT was also used for limited technical support in drafting, reviewing, and troubleshooting RStudio code and file-management procedures.

Generative AI was not used to generate empirical data, replace the reading and interpretation of literature, make final conceptual or analytical decisions, conduct statistical analyses, decide item retention, or produce unverified references. No confidential, identifiable, or sensitive project data were entered into public generative AI systems.

All conceptual development, research design decisions, data handling, measurement construction, analysis, interpretation, and conclusions remain my responsibility. All AI-generated suggestions were critically reviewed, revised, rewritten, or rejected by me. I take full responsibility for the content of the dissertation.

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Appendix

The dissertation distinguishes between three access levels for supporting material. The first level is the public online appendix. It contains non-confidential project documentation, publication-ready training and ethics materials, questionnaire instruments, finalized measurement-audit files, and aggregate analytical outputs. It contains no respondent-level questionnaire data, respondent-municipality linkage files, municipality-level case scores, identification keys, signed forms, recordings, diaries, or participant-specific implementation records.

The public online appendix can be found here:

https://drive.google.com/drive/folders/1yv-aVo9EucUf1K-Oy-feqyjS6zZ_uRECN?usp=sharing

The second level is the restricted assessment-committee data package. It is available only to the three members of the assessment committee through controlled transfer. It contains data-minimized and repseudonymized questionnaire data, committee-specific respondent and municipality identifiers, an item codebook, aggregate response counts, and selected audit outputs required for independent recalculation. The data are pseudonymized, not anonymous. Invitation records without strategic-readiness responses and municipality-specific invitation denominators are not distributed because they could increase recognition risk.

The third level is the protected project archive. It contains the original survey exports, source respondent identifiers, respondent-municipality linkage files, the identification key, signed forms, recordings, participant diaries, participant-specific implementation records, and computational working materials.

Appendix for Chapter 1 – A1: Preregistration clarification

Preregistration note

The ToSRO project was preregistered at OSF under the title *Training of Strategic readiness in Public Organizations*. The preregistration was registered on June 28, 2024, and a view-only link was created for documentation purposes. The preregistration fixed the project's research question, hypotheses, design logic, intervention architecture, and planned measurement and analytical strategy before the empirical results were known.

The preregistered project asked the following:

What is the effect of training mayor and CEO in a systematic, coordinated, and collaborative strategic practice when it comes to their responses to complexity and turbulence?

The three preregistered hypotheses were:

H1. Training of the mayor and the CEO will increase the Strategic readiness in the dyad reported by both mayor and CEO.

H2. Training of the mayor and the CEO will increase the Strategic readiness in the dyad reported by the directors.

H3. Training of the mayor and the CEO will increase the Strategic readiness in the dyad reported by the city councilors.

The dissertation retains the preregistered research question and hypotheses. The wording of the hypotheses is reproduced in the dissertation in its preregistered form. At the same time, the dissertation introduces a more precise terminology for the conceptual, measurement, and design logic developed after preregistration. The clarification below documents how the wording in the preregistration relates to the terminology used in the dissertation.

Link to the preregistration: https://osf.io/bsczk/overview?view_only=abd8e0c94d904cb589012c369a93e6e2

Clarification of terminology between preregistration and dissertation

The clarifications reported here concern terminology and analytical precision. They do not change the preregistered research question, the three hypotheses, the assignment to training and no-training, the before/after measurement structure, or the basic intervention architecture. Their purpose is to make explicit how the language of the preregistration is translated into the more precise conceptual and methodological language used in the dissertation.

Table A.1: Clarification of terminology between preregistration and dissertation

Preregistration wording	Dissertation terminology	Clarification
<i>Training of the mayor and the CEO in Strategic readiness</i>	<i>Leadership training directed at the mayor-municipal CEO dyad</i>	The dissertation uses <i>leadership training</i> as the general intervention term. The intervention is not treated as generic leadership development, but as dyad-based leadership training directed at the mayor-municipal CEO relation.
<i>Mayor and CEO / head of administration (CEO)</i>	<i>Mayor and municipal CEO</i>	The dissertation uses <i>municipal CEO</i> to specify the administrative executive role in the Danish municipal setting. This is a linguistic clarification, not a change in the empirical actors included in the study.
<i>The unit / the strategic dyad</i>	<i>Strategic dyad, municipality, and individual respondent</i>	The dissertation distinguishes between three units. The strategic dyad is the unit of training. The municipality is the unit of assignment, aggregation, and comparison. Individual participants are the unit of questionnaire response. This distinction clarifies the design logic without changing the preregistered comparison.
<i>Strategic practice</i>	<i>Strategizing</i>	The dissertation uses strategizing to align the concept more directly with strategy-as-practice research. The term denotes the interconnected, ongoing, and socially situated activities through which practitioners think, act, and learn strategically as they seek to make strategic issues sufficiently intelligible and to develop, enact, revise, and carry direction forward in practice.
<i>Strategic readiness</i>	<i>Strategic readiness</i>	The dissertation keeps the concept but standardizes the term as <i>strategic readiness</i> . It is defined as the strategic dyad's systematic, coordinated, and collaborative strategizing.

<i>Systematic, coordinated, and collaborative strategic practice</i>	<i>Systematic, coordinated, and collaborative strategizing</i>	The three elements are retained as the conceptual dimensions of strategic readiness. The dissertation uses <i>strategizing</i> rather than <i>strategic practice</i> to make clear that the outcome concerns enacted strategic work rather than formal strategy or general attitudes toward strategy.
<i>Three strategic horizons</i>	<i>Strategic horizons as the orienting architecture of strategic readiness</i>	The preregistration referred to strategic horizons as part of strategic readiness. During the conceptual development of the dissertation, the horizon logic was specified more precisely as four strategic horizons organized by future knowability and issue-specific organizational readiness. They specify how systematic, coordinated, and collaborative strategizing is oriented when the dyad works with strategic issues under complexity and turbulence.
<i>Three systematized concepts linked to H1–H3</i>	<i>Three systematized concepts linked to H1–H3</i>	The preregistration used three hypothesis-linked labels. In the dissertation, strategic readiness retains one conceptual definition: the strategic dyad’s systematic, coordinated, and collaborative strategizing. Respondent position affects empirical specification, operationalization, and measurement rather than the definition of the concept.
<i>Strategic readiness regarding the strategic dyad (SR-sd)</i>	<i>Strategic readiness reported by the strategic dyad</i>	The dissertation retains the first respondent-specific specification but clarifies that H1 concerns the dyad’s own questionnaire-based reporting of its strategizing from within the dyad.
<i>Strategic readiness regarding the directors (SR-d)</i>	<i>Strategic readiness perceived by directors</i>	The preregistration used <i>reported by the directors</i> in H2. The dissertation retains the preregistered hypothesis wording but uses <i>perceived by directors</i> as the analytical term. This clarifies that directors provide questionnaire reports from a

		respondent position outside the dyad.
Strategic readiness regarding the city councilors (SR-c)	<i>Strategic readiness perceived by city councilors</i>	The preregistration used <i>reported by the city councilors</i> in H3. The dissertation retains the preregistered hypothesis wording but uses <i>perceived by city councilors</i> as the analytical term. This clarifies that city councilors rate the dyad's strategizing from a respondent position outside the dyad.
Reported by directors / reported by city councilors	<i>Perceived by directors / perceived by city councilors</i>	All three respondent groups answer questionnaires. The terminology distinguishes between self-report from within the dyad and ratings from respondent positions outside the dyad. This follows the dissertation's use of self-other agreement research, where self-ratings and observer ratings are treated as analytically distinct rating positions.
No-training group	<i>No-training group</i>	The dissertation uses <i>no-training</i> as the main comparison term. This keeps the language close to the actual design: Municipalities were assigned to leadership training or to no-training.
Effect of training	<i>Estimated training/no-training difference in change</i>	The preregistered research question uses the term <i>effect</i> . The dissertation operationalizes this as the estimated difference in change from before to after the training period between municipalities assigned to training and municipalities assigned to no-training.
Field experiment / panel study	<i>Comparative leadership training study with field-experimental logic</i>	The preregistration describes the project as a field experiment and panel study. The dissertation uses a more precise formulation because the study combines field access, stratification, assignment after baseline, before/after measurement, and a small-N municipal comparison.

<i>Randomized selection of participants</i>	<i>Randomized contact order and assignment within strata</i>	The preregistration describes randomized selection from eligible municipalities. The dissertation clarifies that participating municipalities were recruited through randomized contact order within strata and that assignment to training/no-training occurred after baseline measurement. This distinction separates invitation order, participation, and assignment.
<i>Competences, metacompetences, and learning capacity</i>	<i>Learning goals and training domains</i>	The preregistration formulated the training in terms of learning objectives. The dissertation retains these as didactic learning goals but distinguishes them from the dimensions of strategic readiness. ‘Relation’, ‘dialogue’, ‘develop’, and ‘doing’ are training domains; systematic, coordinated, and collaborative strategizing are outcome dimensions.
<i>R3D template</i>	<i>R3D / strategizing compass</i>	The preregistered intervention used the R3D sequence of ‘relation’, ‘dialogue’, ‘develop’, and ‘doing’. In the dissertation, the same underlying logic is presented through the strategizing compass. This is treated as a didactic and representational refinement, not as a substantive redesign of the intervention.
<i>Data from the project including survey data, training material, touchdown emails, diaries, and video recordings</i>	<i>Outcome data and implementation/process documentation</i>	The dissertation distinguishes between survey data used for the empirical outcome analysis and process/intervention material used to document implementation. Survey data are the basis for estimating training/no-training differences in change. Training materials, touchdowns, diaries, and video recordings are used as implementation documentation and audit material.

Explorative Factor Analysis (EFA)	<i>Exploratory Factor Analysis as factor-analytic diagnostics</i>	The dissertation uses EFA to assess the empirical coherence of theory-specified item pools before scale and index construction. EFA is used diagnostically; it does not redefine the concept of strategic readiness.
Control, Councilors, training_minus_control, condition, and other internal computational labels in R scripts and project files	<i>No-training, City ccouncilors, training/no-training difference in change, respondent-specific measures, dimension scales, and overall indices</i>	Some internal computational objects, file names, and legacy script labels retain earlier project terminology for backward compatibility with the original data structure and preregistered workflow. These labels are computational identifiers and do not define the dissertation's final terminology. Dissertation-facing tables, printed appendix tables, cleaned output files, and the interpretation in the dissertation use the final terminology.

The terminology clarification concerns the dissertation text and dissertation-facing outputs. Internal variable names in R scripts may retain legacy labels where changing them would risk breaking the reproducibility chain. These labels are computational identifiers rather than analytical terms. The cleaned outputs used for the dissertation and the public online appendix use the dissertation terminology.

Taken together, these clarifications preserve the preregistered project while making the dissertation's terminology more precise. The preregistered research question and hypotheses remain the basis for the empirical analysis. The dissertation's language clarifies the conceptual status of strategic readiness, the respondent-specific measurement strategy, the distinction between training and no-training, and the design-based interpretation of change.

Appendix for Chapter 7 – A7: Implementation log for leadership training as implemented

This appendix documents leadership training as implemented in the project. Its purpose is to provide an audit trail of the training delivered to the mayor-municipal CEO dyads assigned to training. The log records the training-material register, the implementation sequence, module delivery, intermedia, documentation procedures, ethical procedures, and deviations from planned delivery.

The appendix distinguishes between the planned training design and the implemented training. This distinction is necessary because the dissertation estimates training/no-training differences in change and interprets the assigned

training through documentation of what was delivered. The log is not an outcome analysis. Its function is to make the implemented training transparent and assessable while protecting confidentiality in a field with identifiable political and administrative leaders.

The printed appendix reports the implementation log in recognition-protected and aggregated form. The public online appendix contains non-confidential training materials supporting the log. Confidentiality-sensitive materials, including recordings and participant-specific diary material, remain in the protected project archive.

Register for the public online appendix regarding Chapter 7

Table A.2: Training material register for the public online appendix

Material type	Module	File/material	Function in the training	Appendix status
Module manuscript	1	ToSRO project manuscript, Module 1	Trainer script and delivery structure	Public online appendix
Teaching slides	1	Teaching slides, Module 1	Shared presentation material	Public online appendix
Exercise sheet	1	Exercise for Module 1	Dyadic work with strategic issue	Public online appendix
Dialogue guide	2	Dialogue and reflection guide	Structured dyadic reflection	Public online appendix
Question guide	2	Relation, resources, preconditions, capabilities	Work with issue-specific readiness	Public online appendix
Program/notes	2	Program and notes	Delivery support	Public online appendix
Exercise package	3	Tasks for Module 3	Consolidation and application	Public online appendix
Teaching slides	3	Slides for Module 3	Shared presentation material	Public online appendix
Consent/confidentiality	1	Participation and confidentiality forms	Ethics and confidentiality documentation	Public online appendix

Sources used for the log

The purpose of the log is to provide an audit trail of the leadership training as implemented, including recruitment, assignment, module delivery, between-module activities, materials, documentation procedures, ethical procedures, and deviations from the planned delivery.

The log follows a reporting logic inspired by intervention reporting and process-evaluation conventions. It records the name and rationale of the intervention, the unit of training, materials, procedures, trainers, format, setting, duration, dose, documentation, adaptations, deviations, and fidelity considerations. The log is not an outcome analysis. Its function is to make the intervention transparent, reproducible, and assessable as an implemented training.

Table A.3: Sources used for the training log

Source type	Materials used in the log	Function in the log
Preregistration / project protocol	Project protocol for the ToSRO project	Establishes the planned research design, intervention structure, learning objectives, trainer setup, didactics, room setup, data types, and ethical procedures
Module 1 materials	Slides, manuscript, case material, exercise material, Q&A, participation form, confidentiality form	Documents the content, sequencing, practical setup, consent procedures, and local delivery of Module 1
Module 2 materials	Program notes, slides, dialogue guides, exercise sheets	Documents the implemented joint module, room setup, case, exercises, documentation procedures, and deviation from the planned single-room setup
Module 3 materials	Slides, exercise sheets, repeated Module 1 exercise material	Documents the two implemented Module 3 sessions, program structure, use of own cases, third-horizon work, diary evaluation, and deviation from one joint session
Dissertation draft	Current dissertation chapters on the intervention, data foundation, and training logic	Ensures conceptual consistency with the dissertation's terminology and the distinction between intervention documentation and outcome analysis
Author implementation clarification	Clarification that Module 2 used four rooms and that Module 3 was implemented in two sessions with two and four dyads, respectively	Documents deviations not fully visible in the written materials

The project protocol specifies that the project generated five types of data: survey data, training materials, touchdown emails, handwritten diaries, and video recordings of modules and touchdowns. In the current dissertation, these intervention materials are treated as documentation of implementation and process, while the survey data constitute the basis for estimated training/no-training difference in change.

Recruitment, selection, baseline measurement, and assignment

The implementation log begins after the design steps documented in Chapter 6. The study retained an eligible municipal population through the MSSD criteria, organized this population into three municipal size strata, and recruited participating municipalities through randomized contact order within strata. Baseline measurement was conducted before assignment. After baseline measurement, municipalities were assigned to training or no-training within strata.

For the purposes of the implementation log, the relevant point is that six mayor-municipal CEO dyads were assigned to training and received the implemented leadership training documented in this appendix. The municipality is the unit of assignment and comparison; the strategic dyad is the unit of training; and individual mayors, municipal CEOs, directors, and city councilors are units of questionnaire response.

Planned training architecture

The preregistered training was designed as a structured leadership training program for the mayor-municipal CEO dyad. The planned architecture consisted of three modules and touchdown activities between modules. Module 1 was planned as a local individual module for each dyad. Modules 2 and 3 were planned as joint modules involving the training dyads. The planned program used strategic cases, trainer feedback, diary work, and structured between-module follow-up to support cumulative learning across the training sequence.

The preregistered training logic used the R3D template — ‘Relation’, ‘Dialogue’, ‘Develop’, and ‘Doing’ — as the didactic scaffold. In the implemented training materials, this logic was represented through the strategic staircase and later the strategizing compass. In the dissertation, this is treated as representational and didactic calibration, not as a substantive redesign of the training.

Core components of the implemented training

Table A.4: Core components of the implemented training

Core component	Planned function	Implemented status
Strategic dyad as learning unit	The mayor and municipal CEO were trained together as one dyad.	Implemented throughout all modules
Practice-near strategic casework	The dyad worked with concrete strategic cases as the medium for strategizing.	Implemented in all modules
Progressive complexity and autonomy	The sequence moved from supported dyadic work toward more autonomous work with the dyad's own strategic issue.	Implemented across Modules 1–3
Training tools and frameworks	R3D/strategizing compass, dialogue tools, mind mapping, feedback, and diary work structured the training activities.	Implemented with calibrated terminology and representation
Action learning	Participants worked with strategic issues as the vehicle for learning.	Implemented through exercises, reflection, feedback, and casework
Trainer feedback	Trainers observed, facilitated reflection, and provided feedback.	Implemented in module work and touchdowns
Peer reflection	Dyads learned through comparison with other dyads.	Implemented in Modules 2 and 3, but reduced in Module 3 because the module was split across two sessions
Diary work	Participants documented and reflected on use of tools and observed changes.	Implemented as learning support; selected diary material was documented through photographs
Touchdowns	Online follow-up supported transfer from modules to municipal practice.	Implemented as structured follow-up; documentation retained in the protected project archive
Video and photographic documentation	Delivery and training artefacts were documented for implementation transparency.	Implemented with different recording conditions across plenary and group-room settings

Chronological implementation overview

The following table provides a chronological overview of the implemented training. Dyad-specific scheduling and attendance records are retained in the protected project archive. The printed appendix reports implementation information at recognition-protected and aggregated level.

Table A.5: Chronological implementation overview

Date / period	Activity	Participants	Format and setting	Documentation	Implementation note
Recruitment phase	Recruitment through randomized contact order	Municipalities retained for comparison	Invitation by randomized priority list within strata	Recruitment records	Documented as part of the design record
Baseline phase	Baseline survey	Mayor/municipal CEO, directors, and city councilors in participating municipalities	Questionnaire	Survey data	Conducted before assignment
After baseline	Assignment to training/no-training	12 municipalities / dyads	Assignment within strata	Assignment record	Six dyads assigned to training and six to no-training
Oct–Nov 2024	Module 1	Six training dyads, one dyad at a time	Local individual sessions	Training materials, recordings, consent/confidentiality documentation	Implemented as planned, with randomized trainer allocation
Nov–Dec 2024	Intermedia 1	Training dyads	Diary work, reminders, and online touchdown	Follow-up records and protected recordings	Connected Module 1 to municipal practice
Dec 2024	Module 2	Six training dyads	Joint module with four-room setup	Plenary recording, group-room documentation, materials	Delivery deviation: physical setup differed from planned single-room setup

Dec 2024–Jan 2025	Intermedia 2	Training dyads	Diary work, reminders, preparation for own case, online touchdown	Follow-up records and protected recordings	Prepared dyads for municipality-specific casework
Jan 2025	Module 3	Training dyads split across two sessions	Joint sessions organized around own cases	Plenary recording, group-room documentation, materials	Delivery deviation: module split across two sessions
Feb–Mar 2025	Final touchdown / follow-up activity	Training dyads	Online follow-up	Protected recording and follow-up documentation	Completed as final follow-up
Apr 2025	Final questionnaire	All participating municipalities	Questionnaire	Survey data	Conducted after implemented training sequence

Module 1 implementation log

Module 1 was implemented as a local individual module for each training dyad. The purpose was to use the strategic dyad as the immediate learning unit, introduce the basic language of strategic readiness, and make the dyad's own interaction available for reflection and feedback. The module included research framing, consent and confidentiality procedures, an initial strategic case, introduction to the core tools, feedback work, diary introduction, and planning of the first touchdown.

Table A.6: Delivery overview for module one

Module 1 implementation element	Implemented delivery
Delivery period	October–November 2024
Number of sessions	Six local individual sessions
Unit of training	One mayor-municipal CEO dyad per session
Trainer setup	One trainer per session; trainer allocation determined before delivery
Main activities	Research framing, consent and confidentiality, introduction to strategic readiness, initial strategic case, R3D/compass logic, dialogue tools, mind mapping, feedback, diary, touchdown planning
Documentation	Training materials, protected recordings, consent/confidentiality forms, selected diary photographs where applicable
Implementation status	Implemented as planned

Module 1 began with a welcome, presentation of the research project, explanation of the training format, and clarification that the training was part of a research project designed to investigate the effect of training in strategic readiness. The manuscript instructed the trainer to explain that the form and content were fixed from the start in order to secure valid data and a sufficiently uniform approach across the individual modules.

The module included two formal ethical procedures at the beginning of the session. Participants were asked to sign a form allowing Aarhus University to store and use the data generated by the training, and a confidentiality form stating that information and experiences about other participants in the project should not be shared outside the project.

The substantive content introduced strategic readiness as systematic, coordinated, and collaborative strategizing performed by the mayor and municipal

CEO. The manuscript explains the strategizing perspective, the dyad as the unit of training, and the three strategic horizons used in the intervention

The practical sequence of Module 1 was as follows:

Time	Implemented activity	Function in intervention
08.30	Trainer arrived and prepared the room, equipment, camera, PC, materials, coffee/water, and own workspace	Implementation preparation
10.00	Welcome, presentation, research framing, consent, confidentiality	Establishing research frame and safe learning environment
10.30	Presentation of strategic readiness	Conceptual entry into the intervention
11.00	Initial exercise in strategic readiness based on a financial/budget-related dilemma	Baseline-like practical entry into dyadic strategizing
12.00	Lunch	Break
12.30	Introduction to strategic staircase/R3D logic	Tool introduction
13.00	Introduction to CMM/dialogical perspective	Dialogue and meaning-making tool
13.45	Introduction to mind mapping	Visual and structuring tool
14.15	Introduction to feedback and dyadic feedback exercise	Relational learning and feedback practice
15.15	Introduction to diary and first reflection	Transfer support and reflective documentation
15.50	Summary and planning of touchdown	Between-module continuity
16.00	Closing	End of module

Intermedia 1: Touchdown after Module 1 and diaries

The project protocol specified one-hour online touchdowns with each unit after the modules. The agenda was to be emailed before the meeting with advice about joint preparation. The planned agenda included a courtesy check-in, a relational check-in, questions about the use and understanding of tools and models, questions about takeaways and use in practice, questions about diary use and progress, practical questions, and a final summary to be emailed to the unit. The meeting was to be recorded to document the session.

Each participant was given a notebook and asked to document and reflect on their strategizing. The diary was personal, but participants were advised to share diary reflections verbally with the other member of the dyad. The protocol specified that written diaries would remain with the participants, while selected notes would be photographed by trainers in Modules 2 and 3.

The diary prompts focused on the use of project tools, experiences with those tools, reflections on future use, observed changes in the dyad, the board of directors, city councilors, the organization, and external networks as well as reflections on why changes had occurred and preparation of feedback to relevant actors.

Between Module 1 and Module 2, the dyads were to receive weekly Wednesday email reminders about diary writing. These reminders were part of the transfer-support structure of the intervention.

Module 2 implementation log

Module 2 was preregistered as a joint module for all six dyads. The protocol planned that Module 2 would be held in Copenhagen and that all units would work with the same case, described as a strategic project with a high level of complexity. Each step of the day was planned to follow the same pattern: exercise in the dyad, reflection in the dyad facilitated by a trainer, feedback from the trainer, and joint reflection with the other dyads.

The preregistered room setup for Modules 2 and 3 consisted of one room with a table for each dyad and an area for joint reflections in the center. The planned documentation setup included three cameras: two covering the room as a whole without audio and one covering the large table with audio.

Module 2 preserved the central content and didactic logic of the preregistered design: All six dyads participated in a joint module; the module used a shared complex case; exercises were organized around the strategic tool sequence; group work was followed by plenary reflections; trainer feedback was incorporated; diary evaluation was completed at the end of the day; and participants were asked to continue diary work and bring a case for Module 3.

The principal deviation concerns the physical setup. Instead of one large room with dyad tables and a joint reflection area, the module was implemented in a four-room setup consisting of one plenary room and three group rooms. This did not alter the substantive content of the module, but it changed the physical conditions for peer observation, trainer movement, and recording. Audio documentation was limited to plenary work, while group-room work was documented only through images/video without audio. This deviation should be interpreted as a moderate implementation-format deviation, not as a substantive content deviation.

Time	Activity	Function in intervention
10.00	Welcome, presentation, framing, and sharing of first experiences	Re-entry from Module 1 and establishment of joint learning environment
10.30	Strategic readiness revisited; revision of models; day process and case introduced	Conceptual recalibration and transition to higher complexity
10.45	Day process and case introduced; first task introduced	Shared case orientation
11.00	Exercise 1: Relations, resources, prerequisites, and capabilities	Work with first step of strategic staircase/compass
11.30	Plenary reflection on Exercise 1	Peer reflection and trainer feedback
12.00	Lunch	Break
12.30	Exercise 2: Dialogue and reflection	Structured dyadic and group reflection
13.00	Plenary reflection on Exercise 2	Peer reflection and trainer feedback
13.30	Exercise 3: Idea phase and possible solutions	Development of possible strategic responses
14.00	Plenary reflection on Exercise 3	Peer reflection and trainer feedback
14.30	Exercise 4: Agreements and progress	Movement toward action and next steps
14.45	Plenary reflection on Exercise 4	Consolidation and feedback
15.15	Evaluation of the day in the diary, shared in plenary	Learning evaluation and reflection
15.50	Closing	End of module

Implemented case and exercises in Module 2

Module 2 used a shared case concerning the implementation of several national reforms. The case described a strategic landscape in which the municipality would soon have to act as implementer of reforms across elder care, employment, school initiatives, the green tripartite agreement, and health. The dyads were asked to set strategic direction for a systematic, coordinated, and collaborative strategizing implementation of the reforms. The case also introduced continuing contextual conditions such as budget uncertainty, recruitment challenges, demographic changes, geography, and economic agreements.

The Module 2 slides stated that the purpose of the day's tasks was to train the tools at a new level of complexity. Participants were told that they were not expected to complete the tasks fully, that they should move on when stuck, and that further testing and training would continue at home.

The dialogue and reflection work used a structured guide organized around the categories “hold on to,” “avoid,” “prepare,” “potentials,” and “what can we do

next time?” across the dyad, the surroundings, and the interaction between the dyad and the surroundings.

Intermedia after Module 2 and diaries

Between Module 2 and Module 3, the protocol specified that diary reminder emails would be sent every other Wednesday. The reminders included a courtesy introduction, a reminder of the purpose of the diary, the agenda for weekly notes, and an invitation to ask questions about the diary.

Module 2 also assigned preparation for Module 3. Participants were asked to identify a strategic and complex case they wanted to work with in Module 3 and, if possible, send it before Christmas so it could be incorporated into trainer preparation.

Module 3 implementation log

Module 3 was preregistered as a joint module for all six dyads and was planned to be held in Aarhus. The protocol stated that all dyads would work with a case from their own organization. As in Module 2, each step was to follow the same pattern: exercise in the dyad, reflection facilitated by a trainer, trainer feedback, and joint reflection with the other dyads.

The planned Module 3 script included welcome and framing, plenary reflection on dyadic work so far, a brief presentation of each dyad’s case, work with ‘Relation’, ‘Dialogue’, ‘Develop’, and ‘Doing’, and final evaluation of the day.

Module 3 was implemented across two dates: 7 January 2025 and 24 January 2025. The Module 3 slides identify both dates and contain separate programs for each session.

This constitutes a deviation from the preregistered design, which planned Module 3 as one joint module for all six dyads. The implemented module was split into two sessions in order to secure participation. One session included two dyads, and the other session included four dyads. The exact allocation of dyads to the two Module 3 dates is retained in the protected project archive because dyad-specific scheduling information may increase recognition risk.

Implemented program on January 7th:

Time	Activity	Function in intervention
08.00	Welcome, presentation, and framing	Establishing session frame
08.30	Strategic readiness revisited and presentation of the third horizon	Conceptual transition to horizon-oriented work on unsettled strategic issues
09.00	Group work	Work with own case and strategic complexity
09.45	First plenary	Peer reflection and trainer input
10.15	Group work; Module 1 exercise repeated during the work	Continued case work and before/after illustrative exercise
11.30	Lunch	Break
12.00	Plenary	Shared reflection
12.45	Group work	Continued work with own case
13.15	Evaluation in diary, shared in plenary	Learning reflection and closure
13.50	Closing	End of session

Implemented program on January 24th:

Time	Activity	Function in intervention
10.00	Welcome, presentation, and framing	Establishing session frame
10.30	Strategic readiness revisited and presentation of the third horizon	Conceptual transition to third-horizon work
11.00	Group work	Work with own case and strategic complexity
11.45	First plenary	Peer reflection and trainer input
12.15	Lunch	Break
12.45	Group work; Module 1 exercise repeated during the work	Continued case work and before/after illustrative exercise
14.00	Plenary	Shared reflection
14.45	Group work	Continued work with own case
15.15	Evaluation in diary, shared in plenary	Learning reflection and closure
15.50	Closing	End of session

Implemented cases and exercises in Module 3

Module 3 focused on the third strategic horizon and on more autonomous work with each dyad's own case. The Module 3 slides summarized the training program as consisting of concrete tools and logics responding to the three strategic horizons; three frameworks supporting systematic, coordinated, and collaborative practice; and central training approaches: cases, action learning, feedback, reflection, and diary work.

The Module 3 task sheet asked each dyad to work on its own case. The first task was to draw the strategic landscape and give the case a short and descriptive title. The second task concerned relation, resources, prerequisites, and capabilities across the triple perspective of the dyad, the surroundings, and the relation between the dyad and the surroundings. The task sheet explicitly instructed participants to think broadly across time, geography, municipal history, and prior experience when working with the third horizon.

The third task concerned dialogue and reflection. Participants were asked to use images to make the case visible, for example through collage, rebus, comic strip, or image sequences. They were also asked to identify meaning-bearing words, note openings and new understandings in the diary, and reflect on how this work affected earlier discussions of relations, resources, prerequisites, capabilities, ideas, and possible solutions.

The Module 3 slides stated that the task sheet should be used as a frame for the dyads' coordinated, systematic collaboration on their own cases. The slides also stated that the purpose of the day was to unfold and explore complexity, and that plenary sessions were used to exchange experiences and provide inspiration for further work.

Module 3 preserved the core content of the planned module: work with each dyad's own case, third-horizon framing, trainer feedback, peer reflection, diary evaluation, and continued use of the strategic tools. However, the module was not implemented as one joint session for all six dyads. It was split into two sessions, one with two dyads and one with four dyads.

This deviation altered the peer-learning environment. Each dyad was exposed to fewer other dyads than would have been the case in one joint session with all six dyads. The core training content and exercise structure were preserved, but the peer comparison and collective mirroring component was reduced relative to the planned full-group format. This should be interpreted as a moderate peer-environment deviation, not as a substantive content deviation.

Deviations from planned delivery

Table A.7: Deviations from planned delivery

No.	Training component	Planned delivery	Implemented delivery	Fidelity implication
1	Module 2 physical setup	One joint module in one shared room	Module 2 delivered in a four-room setup with one plenary room and three group rooms	Core content and sequence preserved; peer exposure, trainer observation, and documentation conditions differed from planned setup
2	Module 3 group configuration	One joint Module 3 session for all six training dyads	Module 3 delivered across two sessions, one with two dyads and one with four dyads	Core case-based work preserved; collective learning and peer comparison reduced relative to planned full-group format

Two additional points are recorded but are not treated as deviations from planned delivery. First, the preregistered R3D representation was didactically calibrated through the strategic staircase and strategizing compass in the implemented materials. This is treated as representational calibration because the core learning logic was preserved. Second, the final questionnaire timing belongs to the data generation and measurement record rather than the training delivery log and is documented in the appendix material for questionnaire preparation and data collection.

Appendix for Chapter 8 – A8: Ethics, consent, and confidentiality documentation

Table A.8: Ethics, consent, and confidentiality documentation

Document type	Function in the study	Printed appendix	The public online appendix
BSS approval letter	Documents research ethics approval	Registered	Full document
Research ethics protocol	Documents ethics submission and project description	Registered	Full document
Participant invitation	Documents recruitment and participant information	Registered	Full document
Participant information email/material	Documents information given to participants	Registered	Full document
Consent form for intervention participation	Documents formal consent to participate	Registered	Full document
Confidentiality form	Documents confidentiality commitments in the intervention	Registered	Full document

Appendix for Chapter 9 – A9: Questionnaire preparation and response material documentation

This appendix supports Chapter 9 by documenting the questionnaire preparation and item-level documentation used to establish the response material and the questionnaire-based item pools presented in that chapter. It builds on Chapter 8’s account of data generation and provides the audit trail for how raw questionnaire exports were imported, linked to respondent and municipality identifiers, classified by variable category, and organized into respondent-specific item pools. The printed appendix reports the source material overview, the preparation sequence, the imported questionnaire structure, the variable category summary, and the questionnaire-based item-pool summary.

Table A.9: Empirical analytical sequence from questionnaire preparation to comparative analysis

Step	Analytical purpose	Data basis	Primary analytical level	Main output	Main location
1	Prepare the questionnaire data and document the questionnaire-based item pools	Raw questionnaire exports, respondent identifiers, municipality identifiers, training/no-training status, strata, and item documentation	Respondent / item	Analysis datasets and item-level documentation	Chapter 9 and Appendix A9
2	Assess the measurement properties of the questionnaire-based item pools	Likert-based items for systematic, coordinated, and collaborative strategizing within each respondent group	Item	EFA diagnostics and final item pools for each respondent group and dimension	Chapter 10 and Appendix A10
3	Construct dimension scores and the overall strategic readiness index	Final item pools and questionnaire responses	Respondent and municipality	Dimension-specific scores and overall strategic readiness scores	Chapter 10 and Appendix A10
4	Compare overall change in strategic readiness between training and no-training municipalities	Overall strategic readiness index, measurement wave, training/no-training status, and strata	Municipality	Before/after changes and training-no-training differences in change for each respondent group	Chapter 11 and Appendix A11
5	Examine dimension-specific patterns of change	Dimension scores, measurement wave, training/no-training status, and strata	Municipality	Change patterns for systematic, coordinated, and collaborative strategizing	Chapter 12 and Appendix A12
6	Report supplementary descriptive analyses	Overall strategic readiness scores by dyad role and item-level differences within final item pools	Municipality / role / item	Role-based comparison within the strategic dyad and item-level pattern summaries	Chapter 13 and Appendix A13

Preparing and documenting the questionnaire data

Questionnaire preparation concerns the organization of the raw questionnaire material and the documentation of the questionnaire-based item pools used in Chapter 9 and carried forward to measurement construction in Chapter 10. The raw questionnaire exports were imported separately for the strategic dyad, directors, and city councilors at the two measurement waves. Respondent identifiers were linked to municipality, wave, respondent group, and, for the strategic dyad, role. Municipality identifiers were linked to training/no-training status and strata.

The questionnaire variables were classified according to their analytical role. The preparation distinguishes between four categories: Likert-based dimension items, background variables, metadata, and other variables. The printed appendix reports the category summary. The public online appendix contains the three questionnaire instruments and a de-identified public items.

Table A.10: Questionnaire variable categories by respondent group

Variable category	Content	Strategic dyad	Directors	City councilors
Likert-based dimension items	Items developed to measure systematic, coordinated, or collaborative strategizing and used as the basis for the measurement construction in Chapter 10	75	75	22
Background variables	Variables describing respondent or municipal background information and other background-related questionnaire content	9	9	14
Metadata	Administrative questionnaire information, including respondent ID fields, distribution status, collection status, and other platform-generated questionnaire variables	64	64	64
Other	Other questionnaire variables not used as Likert-based dimension items, including multiple-response items, open-text fields, and non-Likert items	30	10	2
Total	Total number of documented questionnaire variables before analysis preparation	178	158	102

Note: Counts in this table refer to documented questionnaire variables by analytical category before the import-added analysis identifiers are counted as dataset columns. The dataset overview below reports the imported analysis datasets after wave and respondent-group identifiers have been added.

The original questionnaire exports, source respondent identifiers, respondent-municipality linkage files, the identification key, full internal mapping workbooks, free-text responses, background variables not required for the analysis, and computational working materials are not reported.

The Likert-based dimension items were recorded in the questionnaire as ordered agreement categories. For the analysis, the textual response categories were recoded into a common numeric scale: 1 = “Strongly disagree” (“Meget uenig”), 2 = “Disagree” (“Uenig”), 3 = “Neither agree nor disagree” (“Hverken enig eller uenig”), 4 = “Agree” (“Enig”), and 5 = “Strongly agree” (“Meget enig”). Higher values indicate stronger agreement with the strategizing activity described in the item.

Table A.11: Source material used in questionnaire preparation

Source material	Respondent group / purpose	Wave	Role in Chapter 9
Raw questionnaire export	Strategic dyad	Before	Questionnaire responses before intervention
Raw questionnaire export	Strategic dyad	After	Questionnaire responses after intervention
Raw questionnaire export	Directors	Before	Questionnaire responses before intervention
Raw questionnaire export	Directors	After	Questionnaire responses after intervention
Raw questionnaire export	City councilors	Before	Questionnaire responses before intervention
Raw questionnaire export	City councilors	After	Questionnaire responses after intervention
Respondent-specific mapping file	Strategic dyad	Both waves	Item documentation and variable classification
Respondent-specific mapping file	Directors	Both waves	Item documentation and variable classification
Respondent-specific mapping file	City councilors	Both waves	Item documentation and variable classification
Respondent ID file	All respondent groups	Both waves	Links respondent IDs to municipality, wave, respondent group, and role where relevant
Municipality strata file	Municipalities	Not wave specific	Links municipalities to strata and training/no-training status

The item-level documentation is organized around the stable item identifier used in the questionnaire material. In the raw data and documentation files, this identifier is labelled QID, short for question ID. QID links each Likert-based dimension item to its item text, questionnaire variable, respondent instrument, dimension, scale type, inclusion status for the measurement construction, and recoding information.

Table A.12: Questionnaire preparation and documentation sequence

Preparation component	Input	Output	Role in later analysis
Import questionnaire material	Raw questionnaire exports for three respondent groups and two waves	Questionnaire datasets labeled by respondent group and wave	Provides the questionnaire material used in later analysis
Link respondents and municipalities	Respondent ID file and municipality strata file	Respondent/municipality/wave linkage with training/no-training status and strata	Enables respondent-level and municipality-level analysis
Classify questionnaire variables	Respondent-specific mapping files	Variable categories: Likert-based dimension items, background variables, metadata, and other variables	Distinguishes outcome items from documentation and background variables
Document item structure	Mapping files and imported questionnaire data	Item-level documentation and item pool summaries	Provides the item structure used in Chapter 9 measurement construction

Note: The table describes the imported questionnaire material before measurement diagnostics and score construction in Chapter 10. Variable counts refer to the imported questionnaire datasets after respondent group and wave identifiers have been added.

Table A.13: Questionnaire-based item-pool summary by respondent group and dimension

Respondent group	Systematic	Coordinated	Collaborative	Total Likert-based dimension items
Strategic dyad	22	28	25	75
Directors	22	28	25	75
City councilors	7	6	9	22

Table A.14: Response material by respondent group and measurement wave

Respondent group	Wave	Municipalities represented	Invited	Responses received	Response rate
Strategic dyad	Before	12	24	23	95.8%
Strategic dyad	After	12	24	24	100.0%
Directors	Before	10	32	21	65.6%
Directors	After	11	33	24	72.7%
City councilors	Before	11	284	95	33.5%
City councilors	After	12	288	62	21.5%

Note: Municipalities represented reports the number of municipalities with at least one response in the relevant respondent group and wave. The table is aggregated across training/no-training status and strata to reduce recognition risk.

The public online appendix contains the questionnaire, the items, and selected finalized A9 audit outputs documenting the questionnaire material, variable categories, item pools, and non-Likert exclusions. Confidential raw response files, respondent-municipality linkage files, municipality strata and assignment information, and computational working materials are retained in the protected project archive. Table A.15 provides a software-independent specification of the calculations used in the empirical analysis.

Table A.15: Analytical calculation and score-construction rules

Analytical step	Calculation rule	Resulting analytical object
Item coding	Likert answers are coded from 1 = strongly disagree to 5 = strongly agree. “Do not know” and non-substantive answers are treated as missing. Reverse-coded items are transformed as 6 minus the original score.	Coded item answers
Final item set	Only items included in the final item pools documented in Appendix A10 enter score construction.	Final dimension-specific item sets
Respondent-level dimension score	For each respondent, wave, and dimension, the dimension score is calculated as the mean of the available retained item answers in that dimension.	Respondent-level systematic, coordinated, and collaborative scores
Municipality-level dimension score	Respondent-level dimension scores are averaged within respondent-specific measure, municipality, and wave. Each municipality receives one dimension value per measure and wave.	Municipality-level dimension scores
Overall strategic-readiness index	The overall index is calculated as the equal-weighted mean of the systematic, coordinated, and collaborative municipality-level dimension scores. All three dimension values must be available.	Municipality-level overall index
Change score	For each municipality and respondent-specific measure, change is calculated as the after score minus the before score. Only municipalities with both values are included.	Municipality-level change score
Group mean change	Municipality-level change scores are averaged separately within the training and no-training groups. Municipalities receive equal weight.	Training and no-training mean change
Training/no-training difference in change	The estimate is calculated as training-group mean change minus no-training-group mean change.	Reported comparative estimate

Stratum-specific comparison	The same calculation is conducted separately within strata A, B, and C.	Stratum-specific estimates
Role-based analysis	Dyad-reported scores are calculated separately for mayors and municipal CEOs using the same score-construction logic.	Role-specific estimates
Item-level analysis	For each retained item, municipality-level before-after change is calculated and the no-training mean change is subtracted from the training mean change.	QID-level direction estimates

Note: The table provides a software-independent specification of the analytical calculations. The questionnaire instruments, final item pools, item-retention decisions, full-precision aggregate outputs, and coverage information are provided in the printed and public online appendices. The underlying confidential response files and computational working materials are retained in the protected project archive.

Table A.16: Dataset overview after import

Respondent group	Wave	Number of observations	Number of variables	Number of likert items	Number of metadata variables	Number of background variables	Missingness overview
Dyad	before	24	179	79	63	5	Overall 4.9% Likert 4.2%
Dyad	after	24	179	79	63	5	Overall 3.1% Likert 0.0%
Directors	before	32	159	79	63	7	Overall 22.9% Likert 39.2%
Directors	after	33	159	79	63	7	Overall 20.1% Likert 34.7%
City councilors	before	284	103	24	63	5	Overall 23.7% Likert 67.0%
City councilors	after	288	103	24	63	5	Overall 27.7% Likert 78.9%

Note: Missingness is calculated at the raw import stage across the imported variables. The table describes the questionnaire material before the Chapter 9 measurement construction and score construction.

The printed appendix reports the questionnaire preparation at the level needed to assess the construction of the response material and item pools used in Chapter 9. The finalized A9 audit outputs report the source-file manifest, variable-category summary, item pool summary, and non-Likert exclusions.

Appendix for Chapter 10 – A10: Measurement construction, EFA diagnostics, and item-retention documentation

This appendix documents the empirical basis for the measurement construction presented in Chapter 10. Chapter 10 constructs three respondent-specific measures of strategic readiness by first constructing dimension scales for systematic, coordinated, and collaborative strategizing and then constructing one overall index for each respondent-specific measure.

The appendix documents the diagnostic and item-retention decisions behind that construction. The printed appendix reports the full EFA diagnostic summary, the lower-loading items reviewed through substantive item evaluation, the final item pools used for score construction, and the score output structure used in subsequent analyses. The public online appendix contains selected finalized A10 audit outputs. Together with the score-construction rules in Table A.15, these materials document the transition from questionnaire items to the dimension scales and overall indices used in Chapters 11–13. Confidential data and computational working materials are retained in the protected project archive.

Taken together, these appendix tables document the measurement construction underlying Chapter 10 and the empirical analyses in Chapters 11–13.

Table A.17: Full factor-analytic diagnostics by respondent-specific measure and dimension

Respondent group	Dimension	Response records used	Items assessed	Polychoric smoothing	KMO	Bartlett chi-square	df	Bartlett p	SS loadings (one factor)	Proportion variance (one factor)
Strategic dyad	Systematic	47	22	Yes	0.484	3991.26	231	p < .001	10.093	0.459
Strategic dyad	Coordinated	47	28	Yes	0.594	6980.55	378	p < .001	9.805	0.35
Strategic dyad	Collaborative	47	25	Yes	0.5	5594.18	300	p < .001	8.916	0.357
Directors	Systematic	45	22	Yes	0.449	4367.01	231	p < .001	7.747	0.352
Directors	Coordinated	45	28	Yes	0.699	7349.84	378	p < .001	11.558	0.413
Directors	Collaborative	45	25	Yes	0.509	5907.37	300	p < .001	7.155	0.286
City councilors	Systematic	157	7	No	0.872	694.4	21	p < .001	4.2	0.6
City councilors	Coordinated	157	6	No	0.89	490.48	15	p < .001	3.501	0.584
City councilors	Collaborative	157	9	No	0.863	1103.41	36	p < .001	5.203	0.578

Note: Polychoric smoothing indicates whether the estimated polychoric correlation matrix was adjusted before factor extraction. The main text reports a reduced version of these diagnostics in Table 10.1.

Table A.18: Lower-loading items reviewed through substantive item evaluation

Respondent group	Dimension	QID	Loading	Review reason	Decision	Decision principle	Short justification
Strategic dyad	Systematic	Q63	0.498	Loading below .50	Excluded after substantive review	Measures institutional meeting structure rather than systematic strategizing praxis	The item primarily captures the existence of regular meetings rather than how the dyad structures strategic work. Its theoretical relevance is weaker than items that directly capture planning, follow-up, and rule-based involvement of city councilors.
Strategic dyad	Systematic	Q68	0.473	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a core form of systematic strategizing: Strategic planning follows an explicit rule for political involvement. It adds distinct coverage of how the dyad structures planning toward the city councilors.
Strategic dyad	Systematic	Q65	0.325	Loading below .50	Excluded after substantive review	Retrospective evaluation rather than ongoing strategizing	The item is theoretically relevant to strategic learning, but it is less central to systematic strategizing than items capturing planning, goal sharing, and follow-up. It is also exposed to drifting toward general retrospective evaluation of past work.
Strategic dyad	Systematic	Q46	0.094	Low loading	Excluded after substantive review	Weak factor-analytic support and conceptually diffuse	The item does not clearly capture dyadic systematic strategizing itself but rather interaction with another organizational level. Given its very weak loading and limited conceptual distinctiveness, it should not be included for score construction.
Strategic dyad	Coordinated	Q60	0.49	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a core mechanism of coordinated strategizing in relation to the political arena. It is not merely about communication but about aligning thresholds and sequencing political involvement.

Strategic dyad	Coordinated	Q66	0.487	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a key feedback-based coordination mechanism. It adds distinct coverage of how the dyad aligns itself in relation to city councilors rather than only within the dyad.
Strategic dyad	Coordinated	Q67	0.479	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item expresses a clear coordinative logic: The timing of political involvement is structured and aligned in advance. This is a central form of coordinated strategizing.
Strategic dyad	Coordinated	Q48	0.468	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures coordinated strategizing beyond the dyad by making goals explicit across executive levels. It adds a distinct form of outward alignment not covered by the city councilor items.
Strategic dyad	Coordinated	Q34	0.384	Loading below .50	Excluded after substantive review	Measures knowledge sourcing rather than coordinated strategizing	The item is theoretically better aligned with inspiration-seeking or exploratory activity than with coordination. It does not clearly capture a coordinative mechanism in dyadic strategizing.
Strategic dyad	Coordinated	Q28	0.276	Low loading	Retained after substantive review	Theoretically necessary despite weak factor-analytic support	Although the loading is low, the item captures a distinct and theoretically central form of interpretive coordination. It adds unique coverage of reflexive alignment of language and framing that is not fully captured by more general shared-understanding items.
Strategic dyad	Collaborative	Q71	0.491	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures collaborative exploration beyond the dyad and adds distinct political-facing coverage of collaborative strategizing.
Strategic dyad	Collaborative	Q53	0.471	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures collaborative meaning-making beyond the dyad and adds distinct executive-facing coverage not duplicated by the internal dyadic items.

Strategic dyad	Collaborative	Q29	0.432	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item is one of the clearest indicators of collaborative strategizing in dyadic praxis. It directly captures joint possibility development.
Strategic dyad	Collaborative	Q80	0.429	Loading below .50	Excluded after substantive review	Enabling condition rather than enacted strategizing	The item measures access or openness around the dyad rather than collaborative strategizing as a practice. It is better treated as a contextual condition than as a core indicator.
Strategic dyad	Collaborative	Q8	0.418	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a constitutive mechanism of collaborative strategizing in the dyad and should remain despite the sub-threshold loading.
Strategic dyad	Collaborative	Q25	0.413	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a distinct reflexive mechanism of collaborative strategizing and complements the more possibility-oriented collaborative items.
Strategic dyad	Collaborative	Q45	0.284	Low loading	Excluded after substantive review	Measures inspiration uptake rather than collaborative strategizing	The item points to an input source rather than a collaborative process. It is conceptually weaker than items that directly capture co-exploration or co-produced understanding.
Strategic dyad	Collaborative	Q72	0.203	Low loading	Excluded after substantive review	Measures inspiration uptake rather than collaborative strategizing	Like Q45, the item is more about source of inspiration than collaborative strategizing itself. It is excluded from the final item pool.

Directors	Systematic	Q99	0.462	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures one of the clearest forms of systematic strategizing: explicit goal setting. It is central to temporal and directional structuring.
Directors	Systematic	Q97	0.453	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item is a core indicator of systematic strategizing because it directly captures plan-based strategic work in the dyad.
Directors	Systematic	Q148	0.452	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item extends systematic strategizing beyond dyadic praxis into political-facing practices and captures a distinct form of process continuity.
Directors	Systematic	Q102	0.428	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures iterative adjustment of plans and therefore an important non-rigid form of systematic strategizing.
Directors	Systematic	Q98	0.418	Loading below .50	Excluded after substantive review	Too indirect relative to stronger systematic indicators	The item concerns outward communication rather than the internal structuring of strategic work itself. It is weaker than planning, goal setting, and follow-up items.
Directors	Systematic	Q151	0.348	Loading below .50	Excluded after substantive review	Retrospective evaluation rather than ongoing strategizing	The item is more retrospective than the core items and is exposed to drifting toward general evaluation of past work rather than systematic strategizing itself.
Directors	Systematic	Q170	0.335	Loading below .50	Excluded after substantive review	Measures inspiration-seeking rather than systematic strategizing	The item is better aligned with exploratory input-seeking than with the structured organization of strategic work.

Directors	Systematic	Q169	0.286	Low loading	Excluded after substantive review	Enabling condition rather than enacted strategizing	The item measures contextual climate rather than a strategic activity performed by the dyad.
Directors	Systematic	Q149	0.252	Low loading	Excluded after substantive review	Measures meeting frequency or arrangement rather than systematic strategizing	The item is too close to institutional meeting structure and adds little beyond stronger follow-up and planning items.
Directors	Systematic	Q100	-0.058	Negative loading	Excluded after substantive review	Negative loading and conceptually weaker than core items	The item is both empirically problematic and theoretically weaker than the stronger indicators of planning, goals, and follow-up. It should not be included for score construction.
Directors	Coordinated	Q146	0.484	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a central mechanism of coordinated strategizing in relation to the political arena and should be included for score construction.
Directors	Coordinated	Q119	0.455	Loading below .50	Retained after substantive review	Adds distinct coverage of organizational alignment	The item extends coordination beyond the dyad and political arena by capturing how the dyad aligns its work with the organization through feedback.
Directors	Coordinated	Q152	0.43	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a key feedback-based coordination mechanism toward the city councilors and should remain.

Directors	Coordinated	Q107	0.421	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a clear form of coordinated outward role alignment and should be included for score construction.
Directors	Coordinated	Q117	0.327	Loading below .50	Excluded after substantive review	Better aligned with exploratory development than coordination	The item is more about strategic exploration than coordination proper and is weaker than the core alignment and feedback items.
Directors	Coordinated	Q104	0.171	Low loading	Excluded after substantive review	Measures discussion of stakeholders more than coordinated strategizing	The item does not clearly capture alignment of expectations, roles, or strategic direction and is excluded from the final item pool.
Directors	Coordinated	Q161	0.154	Low loading	Excluded after substantive review	Too indirect relative to core coordination items	The item is conceptually weaker than the feedback, expectation, and sequencing items and does not add sufficient unique coordinative coverage.
Directors	Collaborative	Q106	0.498	Loading below .50	Excluded after substantive review	Measures inspiration uptake rather than collaborative strategizing	The item points to external input rather than collaborative process. It is weaker than items that directly capture co-exploration and joint meaning-making.
Directors	Collaborative	Q162	0.478	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures collaborative exploration in a politically extended arena and adds distinct coverage beyond the internal dyadic items.

Directors	Collaborative	Q92	0.406	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a constitutive collaborative mechanism: productive engagement with disagreement.
Directors	Collaborative	Q168	0.375	Loading below .50	Excluded after substantive review	Enabling condition rather than enacted strategizing	The item measures contextual openness to ideas rather than collaboration as strategic praxis.
Directors	Collaborative	Q94	0.372	Loading below .50	Retained after substantive review	Conceptually central and adds distinct coverage	The item captures a distinctive and theoretically central mechanism of collaborative strategizing in dyadic praxis.
Directors	Collaborative	Q150	0.344	Loading below .50	Excluded after substantive review	Inspiration-seeking alone does not imply co-creation	The item is theoretically relevant but weaker than items that directly capture collaborative exploration and joint development with the political arena.
Directors	Collaborative	Q115	0.3	Loading below .50	Retained after substantive review	Theoretically necessary despite weak factor-analytic support	Although the loading is modest, the item is one of the clearest dyad-internal indicators of collaborative possibility development and should remain in the pool.
Directors	Collaborative	Q167	0.294	Low loading	Excluded after substantive review	Contextual condition rather than collaborative praxis	The item is closer to climate than to strategizing and is excluded from the final item pool.
Directors	Collaborative	Q116	0.264	Low loading	Excluded after substantive review	Redundant with stronger possibility-oriented indicators	The item is theoretically relevant, but it overlaps substantially with stronger items on new possibilities and collaborative exploration.

Directors	Collaborative	Q157	0.256	Low loading	Excluded after substantive review	Redundant with stronger collaborative political arena items	The item overlaps conceptually with Q162 and related collaborative political-facing items, while showing weak factor-analytic support.
Directors	Collaborative	Q163	0.153	Low loading	Excluded after substantive review	Too indirect and redundant relative to stronger items	The item adds limited distinct collaborative coverage and is weaker both conceptually and empirically than the stronger political-facing collaborative items.
Directors	Collaborative	Q166	0.103	Low loading	Excluded after substantive review	Enabling condition rather than enacted strategizing	The item concerns access and openness around the directors rather than collaborative strategizing itself.

Note: The table reports items with factor loadings below .50 that were reviewed after the factor-analytic assessment. Items with loadings of .50 or higher were retained through the loading criterion when their wording was consistent with the dimension. The QID-level decision basis and substantive item-review files are provided in the public online appendix.

Table A.19: Final item pools used for score construction

Respondent group	Dimension	Number of items included for score construction	Item identifiers (QID)
Strategic dyad	Systematic	19	Q16, Q74, Q11, Q17, Q39, Q57, Q13, Q40, Q27, Q14, Q22, Q62, Q49, Q54, Q12, Q83, Q69, Q84, Q68
Strategic dyad	Coordinated	27	Q15, Q32, Q44, Q58, Q10, Q61, Q33, Q55, Q31, Q35, Q73, Q42, Q38, Q24, Q41, Q21, Q75, Q52, Q18, Q7, Q43, Q9, Q60, Q66, Q67, Q48, Q28
Strategic dyad	Collaborative	22	Q20, Q50, Q51, Q26, Q76, Q47, Q81, Q70, Q56, Q77, Q30, Q19, Q64, Q82, Q6, Q5, Q59, Q71, Q53, Q29, Q8, Q25
Directors	Systematic	16	Q143, Q140, Q126, Q103, Q132, Q135, Q108, Q125, Q113, Q154, Q160, Q155, Q99, Q97, Q148, Q102
Directors	Coordinated	25	Q127, Q95, Q114, Q129, Q130, Q141, Q144, Q153, Q128, Q96, Q124, Q134, Q120, Q101, Q93, Q110, Q147, Q121, Q118, Q159, Q138, Q146, Q119, Q152, Q107
Directors	Collaborative	17	Q145, Q131, Q142, Q111, Q112, Q139, Q105, Q91, Q133, Q156, Q136, Q158, Q137, Q162, Q92, Q94, Q115
City councilors	Systematic	7	Q184, Q181, Q187, Q193, Q188, Q182, Q202
City councilors	Coordinated	6	Q186, Q192, Q194, Q179, Q180, Q185
City councilors	Collaborative	9	Q191, Q200, Q195, Q196, Q183, Q190, Q201, Q189, Q199

Note: Item identifiers refer to the QIDs used in the questionnaire documentation and measurement construction. Full item wording is reported in Chapter 9 and in the public online appendix.

Table A.20: Dimension score outputs used in subsequent analyses

Score output	Level	Unit represented by one row	Score variable	Coverage information	Use in subsequent chapters
Respondent-level dimension scores	Respondent	One respondent, respondent group, measurement wave, and dimension	Dimension score	Number of items in the final item pool; number and proportion of valid item responses	Used to document score construction and to construct respondent-level overall strategic readiness index
Municipality-level dimension scores	Municipality	One municipality, respondent group, measurement wave, and dimension	Municipality dimension score	Number of respondents in the municipality; number of respondents with a valid dimension score	Used for municipality-level comparisons of change and for dimension-specific analyses

Note: Respondent-level scores document the construction of dimension scales and respondent-level overall indices. Municipality-level scores are used for the training/no-training comparisons of change in Chapters 11–13.

Appendix for Chapter 11 – A11: Overall-index change within strata

This appendix supports the overall-index and stratified analyses in Chapter 11. To protect municipalities from recognition, the appendix does not reproduce condition-specific before, after, or change values within strata. In several stratum-by-condition cells, such values would represent the score of a single municipality.

Table A.21 instead summarizes the aggregate training/no-training difference in change, the municipality coverage of the overall comparison, and the direction of the stratum-specific contrasts. The table thereby documents whether the aggregate result is repeated across strata or concentrated in a particular part of the design without reporting municipality-level case scores. The rounded stratum-specific estimates and contributing municipality counts are reported in Table 11.2.

Table A.21: Aggregate and stratified pattern of change in the three overall indices

Respondent-specific measure	Overall training/no-training difference in change [no-training/training municipalities]	Stratum A direction	Stratum B direction	Stratum C direction	Main stratified implication
Strategic readiness reported by the strategic dyad	0.13 [6/6]	Positive	Positive	Negative	The positive aggregate result is reflected in strata A and B, while Stratum C points in the opposite direction.
Strategic readiness perceived by directors	0.41 [6/4]	Positive	Positive	Positive	The positive direction is present in all three strata and provides the clearest directional consistency across the stratified comparisons.
Strategic readiness perceived by city councilors	-0.24 [5/6]	Positive	Negative	Positive	The negative aggregate result is concentrated in Stratum B and is not repeated across all three strata.

Note: The overall estimate is calculated as the training-group mean change minus the no-training-group mean change and is reported on the 1–5 overall strategic-readiness index. Numbers in brackets report the municipalities contributing to the overall complete-case comparison, first for no-training and then for training. “Positive” indicates that training municipalities changed more positively than no-training municipalities within the relevant stratum. “Negative” indicates that no-training municipalities changed more positively than training municipalities. The stratum columns report direction only and do not reproduce condition-specific before, after, or change values. The stratified comparisons are descriptive and do not establish municipal-size effects. Rounded stratum-specific estimates and the numbers of contributing municipalities are reported in Table 11.2. Repseudonymized municipality-level values required for independent recalculation are available only in the restricted assessment-committee data package.

Appendix for Chapter 12 – A12: Dimension-specific comparison

This appendix supports the dimension-specific comparative analysis in Chapter 12. Table A.22 reports the before value, after value, change, estimated training/no-training difference in change, and number of municipalities contributing to each dimension scale comparison. The table provides the underlying no-training and training change values behind Table 12.1 in Chapter 12. Dimension-specific aggregate comparison files and the coverage summary are provided in the public online appendix. The public online appendix contains the aggregate dimension-specific comparison file and the corresponding coverage summary.

Table A.22: Dimension-specific change by respondent-specific measure and dimension

Measure	Dimension	No-training before	No-training after	No-training change	Training before	Training after	Training change	Training/no-training difference in change	Municipalities included, no-training	Municipalities included, training
Strategic dyad	Systematic strategizing	3.84	4.05	0.21	3.38	3.79	0.41	0.20	6	6
Directors	Systematic strategizing	3.74	3.62	-0.11	3.29	3.52	0.24	0.35	6	4
City councilors	Systematic strategizing	3.11	3.11	0.00	3.54	3.29	-0.25	-0.25	5	6
Strategic dyad	Coordinated strategizing	4.31	4.40	0.09	3.87	4.07	0.20	0.11	6	6
Directors	Coordinated strategizing	3.88	3.74	-0.14	3.53	3.82	0.29	0.43	6	4
City councilors	Coordinated strategizing	3.27	3.17	-0.09	3.66	3.46	-0.20	-0.11	5	6
Strategic dyad	Collaborative strategizing	4.47	4.52	0.05	4.18	4.32	0.14	0.09	6	6
Directors	Collaborative strategizing	4.32	4.05	-0.27	3.93	4.12	0.19	0.46	6	4
City councilors	Collaborative strategizing	3.00	3.17	0.17	3.48	3.29	-0.19	-0.36	5	6

Note: Values are municipality-level dimension scale values on the 1–5 scale. Change is calculated as after minus before. The training/no-training difference in change is calculated as training change minus no-training change. The municipality columns report municipality identifiers with valid before and after dimension-scale values for the relevant respondent-specific measure. Values are displayed with two decimals in the printed appendix; full precision is provided in the public online appendix.

Appendix for chapter 13 – A13: Role-based and item-level supplementary documentation

This appendix supports the supplementary analyses in Chapter 13. Chapter 13 examines whether the dyad-reported result is present for both role positions in the strategic dyad and whether the dimension-scale results are robust across retained items. The printed appendix reports the role-based dimension details behind the role-based analysis. The public online appendix contains the role-based aggregate comparison files, the role-source audit summary, the full QID-level item breadth file, and the item-direction summary.

Table A.23: Role-based dimension scores by role

Role	Dimension	No-training before	No-training after	No-training change	Training before	Training after	Training change	Training/no-training difference in change	Municipalities included, no-training	Municipalities included, training
Mayor	Collaborative strategizing	4.48	4.55	0.08	4.17	4.52	0.35	0.27	6	5
Mayor	Coordinated strategizing	4.36	4.56	0.20	3.90	4.24	0.33	0.14	6	5
Mayor	Systematic strategizing	3.88	4.22	0.34	3.58	3.96	0.38	0.04	6	5
CEO	Collaborative strategizing	4.47	4.49	0.02	4.12	4.23	0.11	0.08	6	6
CEO	Coordinated strategizing	4.25	4.23	-0.02	3.88	3.98	0.10	0.12	6	6
CEO	Systematic strategizing	3.80	3.88	0.08	3.27	3.63	0.36	0.28	6	6

Note: Values are municipality-level dimension scale values on the 1–5 scale, calculated separately for mayors and municipal CEOs. Change is calculated as after minus before. The training/no-training difference in change is calculated as training change minus no-training change. The table supports the role-based specification of H1 in Chapter 13. The public online appendix contains the role-source audit summary.

Table A.24: Direction of item-level training/no-training differences within final item pools

Measure	Dimension	Items in final item pool	Items with positive difference	Items with zero difference	Items with negative difference	Median difference in change	Mean difference in change	Minimum difference in change	Maximum difference in change
Strategic dyad	Systematic strategizing	19	14	1	4	0.25	0.20	-0.50	0.58
Strategic dyad	Coordinated strategizing	27	17	2	8	0.17	0.11	-0.58	0.75
Strategic dyad	Collaborative strategizing	22	11	0	11	0.00	0.09	-0.58	1.00
Directors	Systematic strategizing	16	14	0	2	0.26	0.31	-0.37	0.92
Directors	Coordinated strategizing	25	21	1	3	0.42	0.34	-0.25	0.87
Directors	Collaborative strategizing	17	15	0	2	0.27	0.38	-0.19	1.07
City councilors	Systematic strategizing	7	1	0	6	-0.19	-0.26	-0.78	0.03
City councilors	Coordinated strategizing	6	2	0	4	-0.16	-0.12	-0.45	0.26
City councilors	Collaborative strategizing	9	2	0	7	-0.46	-0.37	-0.74	0.10