

CRANFIELD UNIVERSITY

WENDY SHEPHERD

A DESIGN RESEARCH STUDY OF CUSTOMISED MANAGEMENT DEVELOPMENT

SCHOOL OF MANAGEMENT

DBA
ACADEMIC YEAR 2011 – 2017

SUPERVISORS: DR RICHARD KWIATKOWSKI AND PROFESSOR CLIFF BOWMAN

NOVEMBER 2017

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This thesis is submitted in partial fulfilment of the requirements for the degree of Doctor of
Business Administration

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Abstract

This Design Research study of customised management development (CMD) develops an explanatory model of how CMD generates organisational level impact. The model makes a contribution to the management development literature by providing a plausible explanation of the connectivity between CMD as an input and performance as an organisational level outcome.

The model is consistent with a realist perspective and suggests that CMD does not cause change, but changes the course of change that is already in process within the organisation through, inter alia social interactions and practice based learning. In contrast to prevailing more linear perspectives of the CMD process, the notion of the participant leaving their organisational context to be developed has been replaced with a representation of CMD where the organisation's context is ever present within the development process.

The practical validity of the model and its artefacts has been field tested at Cranfield School of Management. This has resulted in the implementation of a '*Design for Impact*' process. The process utilises *knowledge artefacts* in the form of diagrams and *design propositions* that recommend *what to do* and *what to avoid* when designing interventions within specific organisational contexts.

The model and knowledge artefacts that form the output of this research have been developed using a *Design Research* method. The method combines knowledge drawn from a systematic review of the literature with practitioner interviews. The application of the approach to the management development literature progresses the discussion from '*How do we prove the organisational level impact of management development?*' to '*How can we improve the organisational level impact of management development?*'.

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Glossary of Terms

Abduction:	An iterative process aimed at identifying the most plausible explanation for a phenomenon
Black Box:	Where the link between input and output is assumed to be devoid of structure or of no inherent interest (Hedstrom and Swedberg, 1998: p9)
Capabilities:	Organisational processes and routines rooted in knowledge (Vera et al., 2011: p165)
Causal Model:	The relationship between competing causal mechanisms and structures within a social system e.g. CIMO (Edwards et al., 2014)
Closed System:	A system that produces event regularities (Edwards et al., 2014)
Collective Agency:	The ability to work together within a social system (Hewson, 2010)
Context:	Competing causal powers and embedded practices that are the result of historical causal powers (Kempster and Parry, 2014)
Customised Management Development (CMD):	A Management Development intervention delivered by a business school or similar provider that is designed to meet the specific needs of a particular organisation. The term Management Development is used in this thesis to include executive, leader, leadership, and practice development
Deduction:	A research process that aims to test a general hypothesis to ascertain whether it is true within a specific context
Design Research:	Research aimed at developing knowledge in the service of action and problem solving in organisational settings (Pascal, Thomas and Romme, 2013)
Direct CMD Participants:	Those that perform an active role in the development process
High Control CMD:	CMD that aims to align participants with specific ways of acting that have been identified before the intervention commences
Indirect CMD Participants:	Those that participate in the organisational routines that are the focus for development during the CMD intervention but do not actively participate in the development intervention

Induction:	A research process that aims to discover general rules through the examination of specific cases
Institutional Mechanism:	Routinized processes or structure for transformation within a social system, e.g. talent management process, strategic planning process (Vincent and Wapshott, 2014)
Intervention:	An action or series of actions designed to bring about change within a social system through reproduction or transformation (Edwards et al., 2014)
Knowledge Artefacts:	The tangible outputs of the research process in the form of design propositions, diagrams and prototype models that provide guidance to those involved in the future design of programmes
Leader Development:	Development focused on the individual capability of leaders (Day, 2001)
Leadership Development:	Development focused on the collective capability of a community of leaders (Day, 2001)
Learning:	The process of gaining knowledge and expertise (Knowles, Holton and Swanson, 1998)
Level One Capabilities:	Capabilities that bring about transformation of an organisation's operational capabilities (Helfat and Winter, 2011)
Level Two Capabilities:	Capabilities that promote learning within an organisation (Helfat and Winter, 2011)
Low Control Interventions:	CMD where the tutor facilitates exploration and learning to help the participant group reach their own conclusion about how to act within their specific context
Mechanism:	A plausible explanation of how an intervention is linked to an outcome (Edwards et al., 2014; Hedstrom and Swedberg, 1998)
Middle Range Theory:	A theory positioned between universal laws and specific descriptions (Hedstrom and Swedberg, 1998)
Mode 2 Knowledge:	A multi-disciplinary approach focused on solving context specific complex field problems rather than generic knowledge (Gibbons et al., 1994)

Organisational Change Capabilities:	Level One Capabilities that bring about transformation of an organisations operational capabilities (Helfat and Winter, 2011)
Organisational Learning:	The process of change in individual and shared thought and action, which is affected by and embedded in the institutions of the organisation (Vera et al, 2011: p154)
Organisational Learning Capability:	The efficacy of the embedded process of learning that exists within the organisation (DiBella, 2011)
Operational Capability:	Zero Level Capabilities associated with the existing operations of the organisation (Helfat and Winter, 2011)
Outcome:	The impact of a change within the social system (Edwards et al., 2014)
Open System:	A system where event regularities do not occur (Edwards et al., 2014)
Practice Development:	Development that focuses on the context of ongoing organisational work (Day, 2001)
Retroduction:	An abductive process that aims to explain rather than predict, describe or deconstruct (Blaikie, 2007)

List of Abbreviations

CCED:	Centre for Customised Executive Development at Cranfield School of Management
CIMO	A causal model that explains how specific contexts affect interventions, their generative mechanisms, and outcomes (Pawson and Tilley, 1997)
CMD:	Customised Management Development. Including management development, leader development, leadership development and practice development

1. LINKING DOCUMENT

1.1. Introduction

The contribution of this research is the proposition of an impact model that attempts to explain the connectivity between Customised Management Development (CMD) as an organisational level intervention and organisational performance as an outcome.

The model has been developed using a *Design Research* method that combines theoretical perspectives with practitioner experiences (Pascal, Thomas and Romme, 2013). This has resulted in the production of *knowledge artefacts* in the form of diagrams and design propositions (Appendices A to E) that have been used to assist with the design of customised development interventions at Cranfield School of Management. The artefacts developed are presented in this thesis as research outputs that contribute to both the literature and practice of customised management development.

The Design Research method has not previously been applied to the field of Customised Management Development. Its use in this study has revealed the method's potential to progress discussions about the organisational level impact of CMD from '*How do we prove efficacy?*' to '*How do we improve efficacy?*'

The literature relating to CMD is diverse with often ambiguous and conflicting definitions (Baldwin and Padgett, 1994; Lees, 1992). The term *management development* is used in this thesis to include manager, executive, leader, leadership and practice development.

1.2. Structure of the Thesis

The thesis is divided into four sections. In Section One, the linking document, there is an overview of the research problem, an explanation of the methodology, and summaries of the three projects that constitute the research process. Section One concludes with a discussion of the key findings and the positioning of the contribution.

In Section Two there is a systematic review of the literature. In Section Three the findings from interviews with practitioners from Cranfield School of Management are presented in an

operational model of CMD, and in Section Four an updated model and knowledge artefacts are presented as the output of field-testing.

1.3. The Problem

“Management Development within a single company context refers to activities which gather together numbers of managers from an organisation in order to learn. From learning together, behaviours will be different; from those different behaviours will flow, it is hoped, better business performance”(Patching, 1999, p.1)

Many organisations choose to invest in the process of management development either to improve the individual skills, perspectives and competencies of managers (Collins and Holton, 2004) or to develop the collective capability of management within the organisation (Collins and Denyer, 2008). In some cases, external providers such as university business schools are commissioned to design and deliver management development interventions that meet the specific needs of a particular organisation. These are often referred to in practice as *Customised Management Development* (CMD) interventions. When investing in CMD there is often an implicit assumption amongst stakeholders that doing so will have an impact at the organisational level.

“when managers commit resources to management development, they do so according to some internal rationale and justification, with some sense of significance for the organization” (Lees, 1992: p89)

Despite this assumption, there is relatively little empirical research that examines how CMD delivers outcomes at the organisational level (Dexter and Prince, 2007; Hotho and Dowling, 2010; Mabey and Gooderham, 2005; Mabey and Ramírez, 2005; Purcell and Kinnie, 2007).

When addressing organisational level impact, researchers often attempt to prove the contribution CMD makes to organisational performance. This is problematic however, as CMD cannot be isolated from other activities that contribute to performance within the organisation (Griffin, 2010; Kirkpatrick, 1996). This problem has potentially led to an

overemphasis on individual rather than organisational level outcomes (Bontis, Crossan and Hulland, 2002). The existence of positive outcomes at the individual level however, does not guarantee a positive outcome at the organisational level. In fact, some findings suggest a potentially negative relationship, particularly where participants become frustrated by their inability to effect organisational level change (Bontis, Crossan and Hulland, 2002).

In this thesis, the emphasis of research outputs has changed from *proof of efficacy* to the development of a *causal explanation* that can inform improvements in the design of interventions.

The models contained within this thesis conceptualise CMD as not causing change, but changing the course of change that is already happening within the organisation due to factors such as social interaction, practice based learning, power, and political manoeuvring (Rees and Gatenby, 2014). The commonly held notion of a participant leaving their organisational context to take part in CMD (Mintzberg, 2011) is put aside in favour of a more realistic representation where the organisation's context is central to the intervention. This differs to the more linear perspective of CMD that is often adopted within the management development literature (Anderson, 2010), where *context* is typically viewed as a static intervening variable related to learning transfer when the participant returns to their normal workplace activities.

This new perspective was found to be beneficial as it encouraged the practitioners who took part in this research to broaden their focus beyond the impact of *direct* participants. This resulted in new insights related to the contribution of *indirect* participants and the impact of the cultural and historical surroundings of the intervention.

1.4. Research Design

The research uses a *Design Research* method to arrive at new insights into the organisational impact of Customised Management Development (CMD).

Design Research is a practical approach that develops knowledge aimed at problem solving in organisational settings (Pascal, Thomas and Romme, 2013). The method combines two

perspectives of design, one that focuses on the development of theoretical design propositions through a synthesis of what is already known within the literature (van Aken and Romme, 2009; Denyer, et al., 2008; Romme and Damen, 2007) and another that involves user-centric experimentation with prototype models (Brown, 2009; Martin, 2009; Pascal, et al., 2013).

The aim of Design Research is not to scientifically test the theories that exist within the literature, but to synthesize what is already known in order to recommend how things should be (van Aken and Romme, 2009; Denyer, et al., 2008; Pascal, et al., 2013; Romme and Damen, 2007).

The Design Research process begins with a systematic review of the literature in a deliberate attempt to expand the range of options. This is then followed by a period of abductive convergence where the options are narrowed back down to form a general heuristic that can be used within the field (Pascal, et al., 2013).

The Design Research method is believed to be particularly useful in complex contexts (Brown, 2009) where it provides a structure that guides the researcher to new solutions through an abductive process that involves the practical testing of multiple possibilities, rather than the early selection and testing of a single line of argument (Martin, 2009). Claims generated by abductive processes are therefore tentative in nature and positioned as plausible explanations rather than proven concepts (Gold et al., 2011).

The Design Research method is suited to this research as CMD can be conceptualised as a *complicated* intervention, that is ‘*one that has multiple strands, multiple sites, multiple ambitions and multiple stakeholders*’ (Pawson, 2013: p54). It also responds to a call from Vera et al., (2011) for theoretical plurality in the field of learning to overcome the risk of reinventing the wheel.

1.5. The Research Process

The research design consisted of three projects that were connected by a *retroductive* process that involved circling back between research findings and a broad literature to identify the most plausible explanation for what had been observed:

- Project One (P1): A Systematic Review of the CMD Literature
- Project Two (P2): Development of a Prototype Model of CMD
- Project Three (P3): Field Testing of the Prototype Model of CMD

The retroductive process (illustrated in Figure 1) had two primary benefits. Firstly, it developed a deeper level of insight brought about through noticing additional or alternative explanations that were not considered whilst immersed in the individual projects, and secondly it helped to maintain the link between theoretical perspectives and empirical practice-based observations.

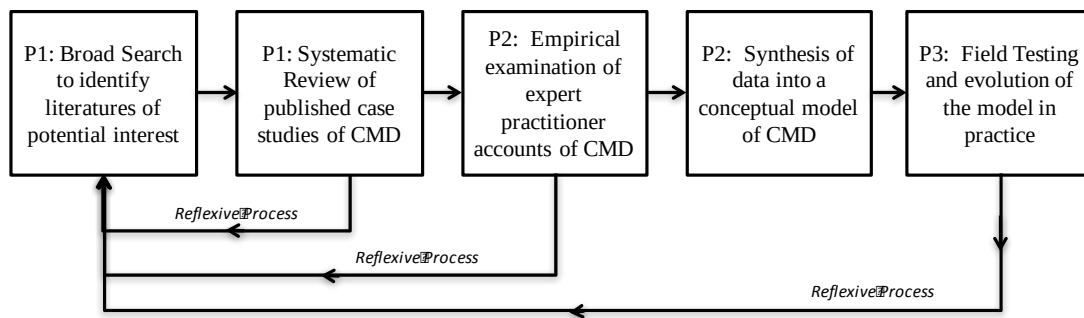


Figure 1: The Research Process

1.6. Project Summaries

The three research projects P1, P2 and P3 are presented in full in Sections 2 to 4 of this thesis. Presented below is a summary of the approach taken and key findings from each project.

1.6.1. P1: Broad Search of the Literature

An initial search of the literature revealed the following deficiencies with regards to CMD:

- **Focus:** There is an emphasis on individual and group knowledge creation rather than identifying the mechanisms that explain how CMD impacts the organisational level
- **No Mid Ground Theory:** Two perspectives of impact predominate within the literature, one that attempts to prove the link by treating the generative process as a black box, and case studies that provide evidence of impact from a single intervention

- **Organisational Level Impact:** The emphasis has been on evaluating impact rather than improving impact

The deficiencies identified within the CMD literature informed the development of a research question:

“How does Customised Management Development generate organisational level outcomes?”

A broad search of the literature was conducted to identify topics that might be relevant to the research question. This is presented in Appendix F and G. The reflexive process (illustrated in Figure 1 as recursive loops) was used throughout the research process to maintain the connection of findings with the literature.

Once the relevance of key topics had been established, a systematic review of the literature was conducted to synthesise what was already known.

1.6.2. Project One (P1): Systematic Review of the CMD Literature

A key word search of the CMD literature resulted in the identification of 995 peer-reviewed CMD papers. These papers were screened for quality and relevance resulting in the selection of 66 theoretical papers and 49 published case studies of CMD. These 115 papers were analysed and synthesised using ‘CIMO’ logic (Pawson & Tilley, 1997) the aim of which was to identify how specific *contexts* affect *interventions*, their *generative mechanisms* and *outcomes* (Figure 2).

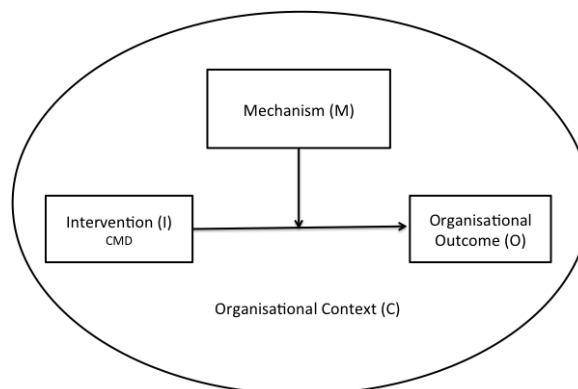


Figure 2: CIMO Logic

Many of the case studies provided relatively little information about the contextual factors that specifically had an impact on the intervention's efficacy. The contextual factors that were identified were categorized according to the phase of the CMD process (*Design*, *Delivery* or *Application*) that they were believed to impact (see Table 1).

CONTEXTUAL FACTORS						
CMD Phase	Stakeholders				Community of Practice	Organisation
		Sponsor	Provider	Participant		
	Design	<ul style="list-style-type: none"> Motive Assessment of needs 	<ul style="list-style-type: none"> Pedagogical approach 	<ul style="list-style-type: none"> Role requirement Understanding of purpose 	<ul style="list-style-type: none"> Sub-culture 	<ul style="list-style-type: none"> Environment Strategy Culture
	Delivery	<ul style="list-style-type: none"> Involvement Role Model 	<ul style="list-style-type: none"> Capability Role 	<ul style="list-style-type: none"> Ability Personality Motivation 		
	Application	<ul style="list-style-type: none"> Support 		<ul style="list-style-type: none"> Personality Motivation Opportunity 	<ul style="list-style-type: none"> Support Role models 	<ul style="list-style-type: none"> Culture Existing Routines

Table 1: Contextual Factors found within the literature

The table highlights an assumption within the literature that the participant's community of practice and organisation are not relevant during the delivery phase of the intervention, and that the provider is not relevant when the participant applies what they have learnt to practice. These assumptions are questioned in this thesis, which proposes that the organisational context is equally important at all stages of the CMD process. Similarly, the perspectives of the provider may continue to influence the actions of the participants beyond their involvement during the delivery phase of the intervention.

The interventions described within the literature were initially divided between two categories of *control* according to the assumption of the author of how impact occurred.¹

With high control perspectives, the participants were viewed as relatively passive in the learning process, receiving instruction from tutors about how to perform specific tasks. The objective of CMD appeared to be to align the participants' skills and behaviours with prescribed ways of acting within the organisation's context. With low control perspectives, the participants were believed to be more active within the learning process, drawing on their

¹ The categorization proved useful as a *scaffold* during the early stages of this research (P1 and P2), however, it became apparent as the research progressed that CMD is a more nuanced construct.

individual experiences and knowledge to identify where changes to practice were needed. With low control interventions, the tutor was often described as a facilitator or guide within the learning process rather than as an instructor. The objective of low control interventions appeared to be to develop the participants' capacity to identify and solve problems within the organisation, either individually or collectively.

Those that advocated low control CMD approaches often argued that they were more contemporary and relevant to the requirement of modern organisations (Buckley and Monks, 2008; Fulmer, 1997; Hotho and Dowling, 2010). This assumption is challenged within this thesis, where it is argued that methods associated with the high control perspective of CMD remain relevant in contemporary contexts where the participants do not possess the experience required to engage in learning processes typically associated with the low control perspective, or where the intention is to train participants to perform specific organisational routines.

In most cases the papers reviewed described either individual or group level mechanisms that explained how change occurred during the intervention, rather than theories of organisational level change. Individual and group level mechanisms were most often related to learning (see Table 2).

Learning Theory	Description
Technical Pedagogy	The transmission of fact and the application of concepts and theories at an abstract level
Andragogy (Knowles)	Learning in adults that draws on life experiences as a resource for incorporating into the learning process
Experiential Learning (Kolb)	Learning that involves concrete experiences and reflection which leads to conclusions that are then put into practice during new experiences
Social Learning (Bandura)	Social Construction: Co-reflective practice and collaboration to arrive at shared meaning and identity
	Mimicry: The observation of others behaviours in a particular context, committing them to memory in order to emulate them in similar contexts

Table 2: Individual and Group Level Mechanisms found within the literature

Organisational level mechanisms typically appeared within the papers as intervention *outcomes* at the individual or group level. These outcomes included *specific skills* and

knowledge, learning as an adaptive capability, and social capital as an enabler of future cooperation (see Table 3).

Mechanism	Intervention Outputs
Knowledge: the active use of knowledge and skills in practice	☐ Procedural Knowledge ☐ Declarative Knowledge ☐ Skills ☐ Competencies
Learning: as an adaptive capability	☐ Motivation for Continued Personal Development ☐ Motivation to support the development of others ☐ Meta-Abilities
Social Capital: as an enabler for the exchange of organisational resources	☐ Change in Relationships ☐ Change in Networks ☐ Change in levels of Trust

Table 3: Organisational Level Mechanisms found within the literature (Individual Level Outcomes)

The outcomes at the individual and group level were assumed to improve the participant's effectiveness in their role, which in turn was believed to have a *positive* impact on organisational level performance. This commonly held assumption is extended within this thesis by proposing that CMD changes *organisational level capabilities*, the result of which can be positively or negatively related to organisational performance.

As very few of the 115 papers suggested negative or unanticipated outcomes from CMD, the decision was taken to interview CMD practitioners within the Centre for Customised Executive Development (CCED) at Cranfield School of Management to develop additional insights into what had worked and what had not worked within specific organisational contexts.

1.6.3. Project Two (P2): Practitioner Interviews

A further eleven accounts of CMD were obtained by interviewing the practitioners within Centre for Customised Executive Development at Cranfield School of Management. A comparative case method was used to identify patterns across the cases. The patterns observed were combined with observations from the systematic review of the literature in a process of retroduction (Appendix H).

The interviewees were all Programme Directors employed within the researcher's community of practice. The Programme Directors were selected as they have responsibility for the end-to-end process of CMD from the original commissioning of programmes, through to design, delivery and evaluation. It was therefore believed that they would have the relevant insights to explain the logic of CMD interventions designed at Cranfield School of Management. As the Programme Directors were from the same community of practice as the researcher, it was also anticipated that they might be willing to reveal details about the unanticipated and potentially negative outcomes of CMD.

The interventions described by the Programme Directors were divided into six categories drawing on insights developed from P1 relating to the assumed level of control over learning outcomes (Table 4).

	High Potential	Practice Development	Organisational Development
Specific Outcomes (<i>High Control</i>)	Develop participants' competence to perform specific roles within a specific cultural context	Develop the participants' capability to perform specific routines within a specific cultural context	Develop the participant's capability to implement specific changes in accordance with the organisation's strategy
Emergent Outcomes (<i>Low Control</i>)	Facilitate the exploration of different career paths within the organisation	Facilitate problem setting and solving at the practice level	Facilitate organisational change through the participants' identification of priorities for action

Table 4: P2 Intervention Categorisation

High Potential interventions relate to the development of individuals for future roles within the organisation. The organisational impact of high potential interventions was typically explained through changes in the participant's motivation to pursue careers within the organisation, and through the alignment of their skills and behaviours with the requirement of specific roles and communities.

Practice Development interventions related to development associated with the performance of specific operational routines. In the case of *high control practice development*, the objective was to align the participants' skills and behaviours with existing ways of working. With *low control practice development*, the objective was to engage the participants in sense-

making activities associated with the improvement of existing organisational routines. The organisational impact of practice development interventions was typically explained through incremental improvements to the organisation's operational routines.

Organisational Development interventions related to development associated with the organisation's change agenda. In the case of *high control organisational development*, the objective was to align the participants' skills, behaviours and future actions with a pre-defined organisational strategy. In the case of *low control organisational development*, the objective was to engage the participants in dialogue and sense-making activities that contributed to the development of new strategies. The organisational impact of *organisational development* interventions was typically explained through transformational changes associated with the organisation's culture and structure.

Six mechanisms were identified from the explanations provided by the Programme Directors about the impact of CMD. The mechanisms were identified from explanations of impact that were common across the eleven cases. Once identified the mechanisms were confirmed as *plausible* by verifying their fit with the constructs extracted from the literature during P1 (Appendix H). The six mechanisms were:

- **Sense-making:** the intervention's capacity to generate new insights into the organisation, its context and the participant's role within it. Changes in the sense-making capacity of participants were believed to improve their contribution to organisational decision-making.
- **Dialogue:** the intervention's capacity to develop a common language, facilitate new topics of conversation, and to bring new people into discussions across the organisation. The development of dialogue was believed to facilitate knowledge sharing and learning within the organisation.
- **Skills Development:** the intervention's capacity to generate new skills at the individual level. The development of new skills was believed to improve the individual agency of the participants.
- **Socialisation:** the intervention's capacity to familiarise participants with the social norms of a practice community, and develop new relationships and networks across

the organisation. The development of social capital was believed to facilitate cooperation between individuals and communities within the organisation.

- **Alignment:** the intervention's capacity to align the participants and their capabilities with the organisation and its objectives. The development of alignment was believed to facilitate the implementation of strategies, and to generate synergies across the organisation.
- **Engagement:** the intervention's capacity to motivate and empower participants to act on behalf of the organisation. The development of engagement was believed to influence the discretionary effort and commitment of individuals towards the achievement of organisational objectives.

During the interviews data was gathered about the unanticipated consequences of CMD. The Programme Directors commonly referred to the risk of conflict arising within the organisation due to changes within the participant population that were contrary to the organisation's existing culture. In some contexts, changes within the participant population were believed to accentuate the perceived failings of other leaders within the organisation's wider community. Where these perceived failings were associated with more senior leaders, this potentially reduced the alignment and engagement of the participants with the organisational vision, strategy or method of operating. In other contexts, frustrations were seen to arise where participants were unable to implement changes to practice in accordance with their learning. This appeared to be most prevalent where the intervention promoted a change agenda that had not previously been ratified by leaders who were not directly involved in the CMD intervention. It was also seen to occur in contexts where the participants did not have the positional authority to implement changes to organisational practices.

Insights from the systematic review during P1 and the interviews with practitioners during P2 were captured in an operational model of CMD (Figure 3). The model was developed drawing on Pawson's concept of an impact chain (Pawson, 2013).

The model's purpose was to emphasise how constraining and enabling factors within the organisation's context might intervene during the different phases of the CMD impact process.

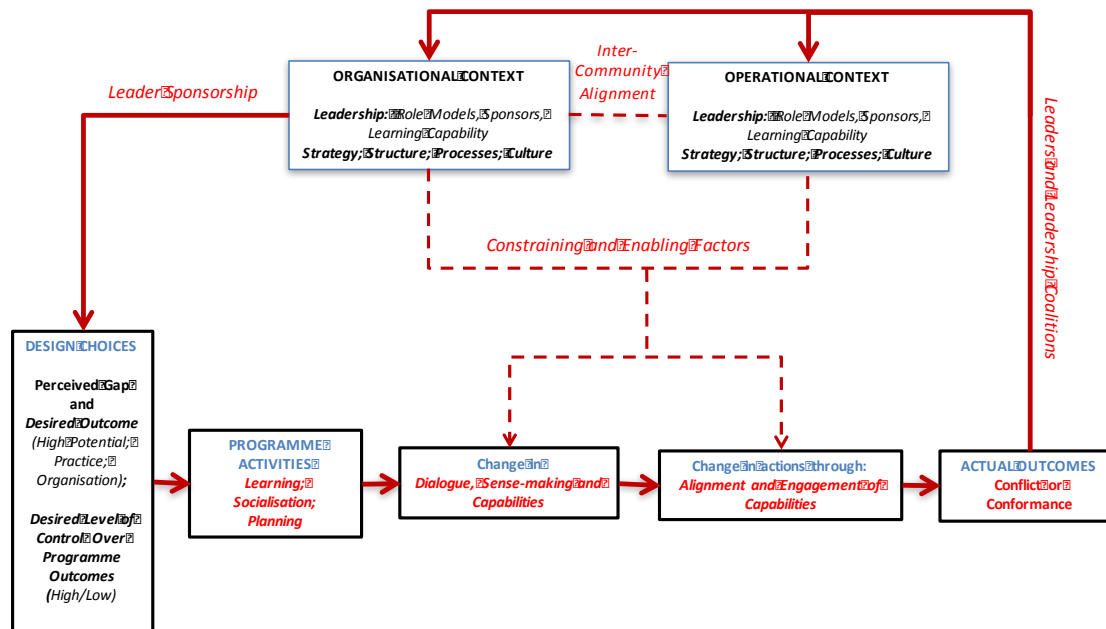


Figure 3: The Prototype Model

The objective of the final stage of the research process was to test the practical validity of the model through its use in practice.

1.6.4. Project Three (P3): Field-Testing

The prototype model was field-tested at Cranfield School of Management over a six-month period. During field-testing new knowledge artefacts including diagrams and design propositions were developed and used to facilitate discussions with clients, faculty and expert practitioners (Appendix A to E). A reflective log of the model's use and evolution was used to record thoughts, ideas and observations that emerged during the field-testing phase (Appendix S).

The categorisation of interventions developed during P2 (Table 4) was altered during P3 for two reasons. Firstly, it became apparent as research progressed that the *high control/low control* dichotomy was limiting as CMD is a more nuanced construct. Secondly, the

Programme Directors were occasionally unable to distinguish between *Practice Development* and *Organisational Development*, particularly where the focus of the intervention was on developing the leadership routines required to deliver organisational level change.

A new categorisation of interventions was established by comparing the objectives of the interventions described by the Programme Directors during P2, with alternative theories from the organisational learning literature. A good fit was found with Vera et al.'s (2011) *integrative framework of an organisation's learning system*.

The framework was considered useful as it suggests a relationship between three categories of organisational capability and organisational performance². The categorisation of interventions in accordance with organisational level capabilities also resonated with the Programme Directors' experience of the various organisational level purposes of CMD. The relationship between organisational capabilities and performance suggested by Vera et al. (2011) informed the development of Figure 4.

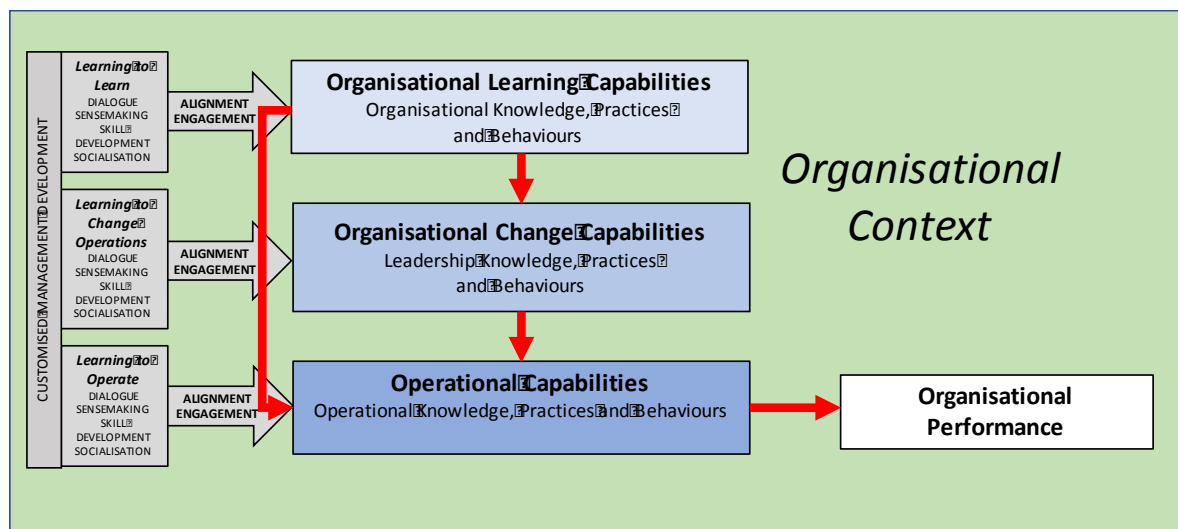


Figure 4: The Connection of CMD with Organisational Performance

The Operational Model of CMD developed during P2 was updated to reflect the new insights presented in Figure 4. The updated model is presented at Figure 6. Knowledge artefacts

² The position of the different capabilities within the model is intended to explain their connection with organisational performance rather than infer a hierarchy of capabilities

were also developed including the diagrams displayed in Figure 5³ and the design propositions presented in Tables 5 and 6.⁴

The models and artifacts that were developed through this research are now in use by practitioners within CCED under the umbrella term ‘*Design for Impact*’. The *Design for Impact* methodology provides a logic for the design of specific customised interventions. It also assists with the development of consensus amongst stakeholders about the organisational purpose of the interventions that are commissioned.

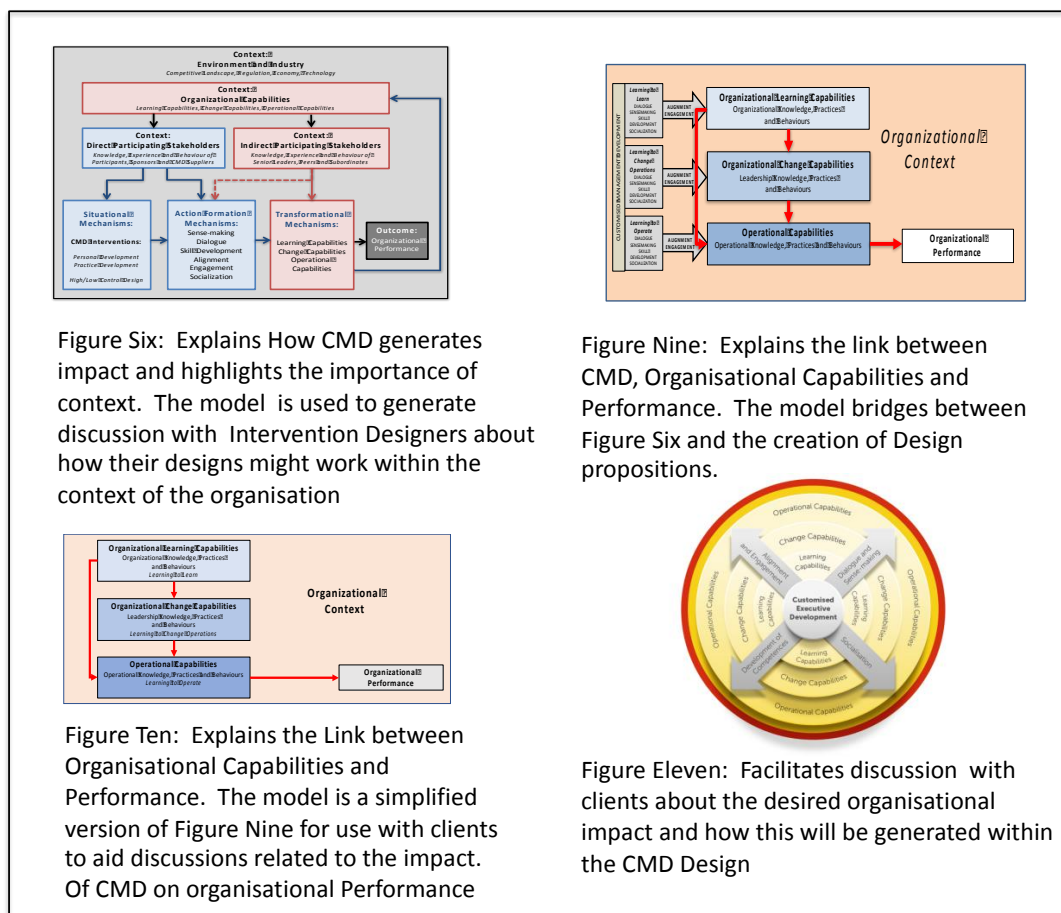


Figure 5: A Portfolio of Impact Diagrams

³ Larger versions of the diagrams are presented at Appendix A

⁴ Larger versions of Tables 5 and 6 are presented at Appendix B to E

Context and Intervention	Organisational Mechanisms	Organisational Focus		
		Learning to Operate	Learning to Change	Learning to Learn
Incumbent Populations: Practice Development	Capabilities	Develop capabilities that address specific operational gaps	Develop the capability to implement transformational change	Develop the capability for Organisational Learning
	Dialogue and Sense-making	Focus dialogue and sense-making activities on the performance of existing systems and processes	Focus dialogue and sense-making on how to change existing systems and processes to meet the change in context	Focus dialogue and sense-making on Organisational innovation and Learning
	Alignment and Engagement	Align participant behaviour with the espoused organisational culture. Engage participants in Operational Improvement Initiatives	Align and engage participant actions with requirements of strategic plans	Develop the participants' ability to continually align and engage their actions with the requirement of the emerging context
	Socialization	Socialise participants to interact teams to bridge relationships horizontally across functions or silos	Socialise participants with leaders across levels to facilitate the vertical integration of strategy	Organise participants into diverse collaborative learning groups that facilitate knowledge creation
Transitioning Populations: Competence Development	Competences	Develop the competences required to perform existing practices and routines associated with the target role	Develop the competences required to perform changing practices and routines associated with the target role	Develop the competences required to drive the use of knowledge and skills in practice
	Dialogue and Sense-making	Focus dialogue and sense-making activities on the requirements of the target role	Focus dialogue and sense-making on how the requirements of the target role are changing	Focus dialogue and sense-making on the importance of Personal Development and Lifelong Learning
	Alignment and Engagement	Align and engage participant behaviours with the requirements of the existing culture within the target community of practice	Align and engage participants' expectations with the strategic intent of senior leaders	Develop the participants' ability to continually align and engage their actions with the requirement of the emerging context
	Socialization	Socialise participants with members of the target community to facilitate entry and provide role models that support the development of behaviours	Socialise participants with senior leaders to develop followership and commitment to change	Provide opportunities for participants to build personal networks that will support their ongoing development and performance within the organisation

Table 5: P3 Design Propositions – What to Do

Context and Intervention	Organisational Mechanisms	Organisational Focus		
		Learning to Operate	Learning to Change	Learning to Learn
Incumbent: Practice Development	Capabilities	Advocating methods that are inconsistent with the desired operational culture	Developing capabilities in only one tier of leadership	Generating an expectation of short-term impact
	Dialogue and Sense-making	Challenging the existing strategy or discussing where change is needed in communities not engaged in the development intervention	Developing divergent thinking between the development population and other populations of leaders	Generating debate and competition rather than dialogue and creativity
	Alignment and Engagement	Generating dissonance with non-participating members of the community of practice	Reducing followership by generating concern about the strategic capability of more senior leaders	Developing new ideas that are but of scope or beyond the capability of the organisation to implement
	Socialization	Generating disruptive coalitions	Excluding non-participants from strategic dialogue	Creating cliques of strongly bonded participants
Transitioning: Competence Development	Competences	Advocating methods that are inconsistent with existing ways of working within the target community	Involving leaders who do not role model the future behaviours required to deliver the strategy	Generating an expectation of short-term impact
	Dialogue and Sense-making	Challenging the existing ways of working within the target population	Excluding the participants and managers from strategic dialogue	Generating debate and competition rather than dialogue and creativity
	Alignment and Engagement	Generating dissonance with the target community	Developing commitment to actions that are inconsistent with the planned strategic actions of line managers	Developing new ideas that are but of scope or beyond the capability of the organization to implement
	Socialization	Disrupting social relationships within the participants existing community of practice	Generating conflict within the participants existing community of practice	Creating exclusive cliques of strongly bonded participants

Table 6: P3 Design Propositions – What to Avoid

1.7. Discussion of Findings

The primary contribution of this research is the configuration of previously unconnected concepts from the literature into an operational model of organisational level impact (Figure 6) that has been field tested within the Centre for Customised Executive Development at Cranfield School of Management.

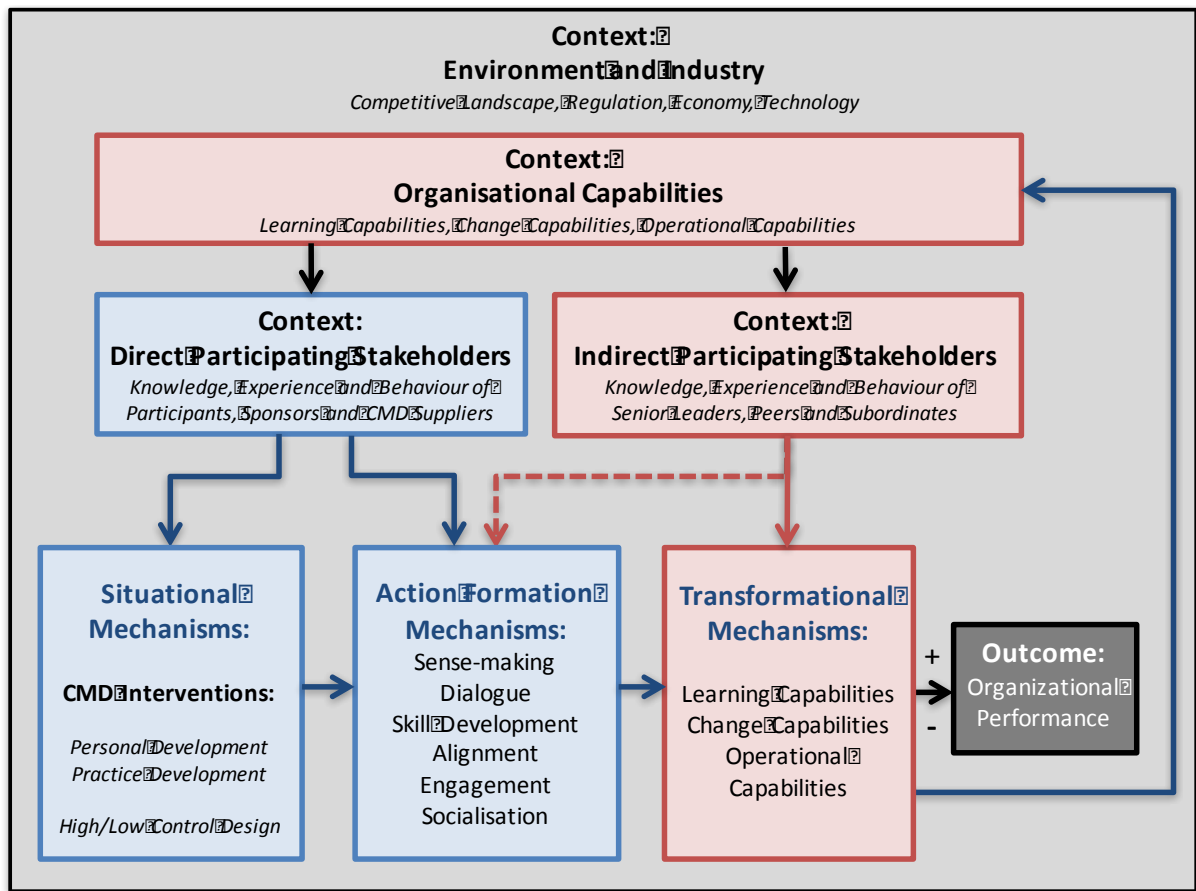


Figure 6: How CMD Generates Organisational Level Impact

The model suggests that CMD is related to organisational performance through six action formation mechanisms that generate change in organisational level capabilities. These changes may be either positively or negatively related to organisational performance depending on factors within the organisation's wider context.

The model differs from other theories of impact that were identified within the CMD literature as it includes the contribution of *indirect* participating stakeholders to the outcomes of CMD. Indirect participating stakeholders are those that participate in the organisational routines that are the focus for change during the CMD intervention, but do not actively take part in the development intervention itself. Indirect participating stakeholders will potentially have an impact on the attitudes, perspectives and behaviours of CMD participants during the intervention. They may also influence the course of change generated through CMD by

contributing additional insights, collaborating, or actively opposing changes to routines within the workplace.

The feedback loop between organisational capabilities as CMD mechanisms and organisational capabilities as CMD contextual factors, highlights the path dependent nature of CMD impact. Where there is a positive change in organisational capabilities in the form of new skills, schemas, language, and behaviours, these may serve to support the learning of future CMD cohorts. Whereas a negative change in organisational capabilities in the form of conflict, the demotivation of direct or indirect participants, and increased cynicism about the time and money spent on development may serve to reduce the outcomes of future cohorts.

The six generative mechanisms identified through this research allow those that are responsible for CMD to connect specific intervention designs with organisational capabilities and ultimately organisational performance. Table 7 suggests how the CMD mechanisms may be manipulated through the design of interventions to deliver outcomes in accordance with different organisational level capabilities.

In the case of *operational capabilities*, the focus is on generating incremental changes that improve the efficiency, quality or standardization of organisational routines. The purpose of CMD is therefore most likely to be associated with organisational compliance, productivity improvements or developing individuals to take on new responsibilities. Learning outcomes related to operational capabilities are most likely to be single loop organisational learning (Argyris, 1999) in so far as the focus is to improve the performance of existing routines rather than to transform the routines. Theoretically, CMD that focuses on operational capabilities may have a more direct relationship with organisational performance as the learning is directly associated with the current functional activities of the organisation (see Figure 4).

In the case of *change capabilities*, the focus is on generating transformational change in accordance with an organisational vision or strategy. The purpose of CMD is either to help the organisation formulate plans for implementing transformational change, or to develop the capability of individuals and groups to work in ways consistent with the organisation's

Developing Organisational Level Capabilities				
Organisational Level Outcomes		Operational Capabilities	Organisational Change Capabilities	Organisational Learning Capabilities
Intervention Type		Learning to Operate	Learning to Change	Learning to Learn
Action Formation Mechanisms	Sense Making	Operational/Management Knowledge and Theory: Develop insight into Best Practice e.g. KAM, Demand Change Management, Finance, HRM, Corporate and Social Responsibility, Crisis Management	Leadership Knowledge and Theory: Develop insight into Best Practice e.g. Distributed, Situational and Transformational Leadership	Organisational Knowledge and Theory: Develop common Organisational Schemas, Language and Breadth of Perspective.
	Dialogue	Operational/Management Practices: Surface and Critique existing operational/management processes and practices	Leadership Practices: Surface and Critique existing organisational leadership processes and practices	Learning Practices: Surface and Critique existing organisational learning processes and practices.
	Individual Level Capabilities	Operational/Management Tools: Learn new techniques e.g. Performance management, Project Management, Courageous Conversations	Strategic/Leadership Tools: Learn new techniques e.g. Strategic Analysis, Change Management, Culture Change	Learning Tools: Learn new techniques e.g. Giving and Receiving Feedback, Coaching and Mentoring, Dialogue, Mindfulness, Action Learning, Design Thinking, Collaborative Learning
	Alignment	Operational/Management Behaviours: Disseminate Organisational Mission, Culture, Values and Behaviours	Leadership Behaviours: Disseminate Strategic Vision, Culture, Values and Leadership Behaviours	Learning Behaviours: Disseminate Learning Context, Culture, Values and Behaviours
	Engagement	Operational Engagement: Engage Participants in Cross/Intra-Functional Problem Setting and Solving	Strategic Engagement: Engage Participants in Strategic Projects, Feedforward and Feedback Strategic Information across Leadership Levels	Learning Engagement: Create the space for learning and reflection, and the development of social capital
	Socialization	Operational Relationships: Connect across silos and functions or within specific communities	Leadership Relationships: Connect across levels of leadership and between silos	Learning Relationships: Develop informal networking and collaborative opportunities

Table 7: The Alignment of CMD with Organisational Level Capabilities

transformational agenda. Learning outcomes related to change capabilities are more likely to be double loop organisational learning in so far as the purpose is to transform organisational routines (Argyris, 1999). Theoretically, CMD that focuses on change capabilities is indirectly linked to organisational performance as it is the resulting changes within operational routines that directly link to organisational performance (Vera, Crossan and Apaydin, 2011).

In the case of Learning Capabilities, the focus is on generating developmental change by improving the capability of the organisation to adapt to continuous changes within its wider context over time. The purpose of CMD is to develop meta-abilities (Buckley and Monks, 2008; Caligiuri and Tarique, 2009; Ladyshevsky, 2007) that drive the use of knowledge and skills in practice, or to develop the organisation's learning culture. Development related to learning capabilities can be categorized as deuterio or triple loop organisational learning (Argyris, 1999) sometimes referred to as *learning to learn*. CMD that focuses on learning capabilities is indirectly linked to organisational performance as learning capabilities must first result in some form of change to operational routines before they can have an impact on organisational performance (Vera, Crossan and Apaydin, 2011). Learning capabilities may have a longer-term impact on organisational performance than the investment in specific operational routines as they allow the organisation to continue to adapt to changes in the environment over time.

The categorisation of CMD between organisational capabilities and the intended participant population is presented in Table 8. The table has been used to develop consensus amongst CMD stakeholders about the intended purpose of specific interventions.

	Learning to Operate	Learning to Change	Learning to Learn
Incumbent Populations	Developing the Operational performance of existing leaders	Developing the capability of existing leaders to implement change	Developing the capability of existing leaders to learn and adapt within rapidly changing contexts
Transitioning Populations	Developing High Potentials for promotion into existing roles	Developing High Potentials for promotional opportunities aligned with the corporate strategy	Developing High Potentials capability to learn and adapt within rapidly changing context

Table 8: The Categorisation of CMD

It is possible that an organisation will have development requirements associated with each of the six needs identified within Table 8, however, depending on the organisation's specific context, some of the requirements may be more strategically important. For example, where an organisation competes through a low-cost business model, the focus for CMD may be to improve efficiencies within existing operational routines. When implementing a new strategy, the focus for CMD may be to develop the ability of existing leaders to implement change. In contexts that are rapidly changing, the focus for CMD may be to increase agility through the development of learning capabilities that allow the organisation to quickly identify and respond to emerging opportunities and threats.

The distinction between *transitioning* populations and *incumbent* populations within Table 8 is intended to reduce the risk of conflict emerging from CMD. *Incumbent* participants are already members of a community of practice and therefore will have experience of performing the organisational routines associated with their position. *Transitioning* participants however will be entering the community of practice for the first time. Although they may have seen routines practiced, they may not yet have first-hand experience of performing the routines themselves. The involvement of transitioning participants in critiquing existing routines may create tensions with the incumbent population, which therefore may have negative consequences for their successful integration into the new community.

1.8. Contributions to the Literature

Prior research into the organisational impact of CMD concludes that nothing works in all contexts. This research contributes to the literature by providing an explanatory model of CMD impact and knowledge artefacts in the form of diagrams and design propositions that explain *what works* and *what doesn't work* within specific contexts.

The model is a non-linear representation of CMD that includes the impact of indirect participants on organisational level outcomes. Previously, non-attending stakeholders have only been discussed within the training transfer literature with regards to their support with the implementation of learning. The importance of indirect participants is extended within this thesis by emphasizing their contribution within the explanatory model. It is proposed

that memories of the previous actions and behaviours of indirect participants are *carried* into the intervention by the direct participants as resources for use during the learning process. It is also proposed that the indirect participants' active involvement in the organisational routines beyond the temporal boundary of the intervention has a generative impact on the outcomes from CMD.

This research challenges the assumption by many practitioner authors that the outcomes of CMD are largely positive at the organisational level. Specific examples are provided where CMD has had unanticipated and/or negative consequences for the participants and the communities within which they work. The research also questions the assumption that those that attend CMD interventions within university business schools are away from their organisational context. This research has demonstrated that the culture and behaviours that exist within the organisation are present regardless of where the intervention is delivered.

Finally, the assumption that approaches that have previously been defined in this research as *low control* are more relevant to contemporary organisations is also challenged. The findings in this research suggest that both *low control* and *high control* interventions have a place within the development portfolio of an organisation. It is the specific context that dictates which approach might be most effective.

1.9. Contribution to Practice

Universities have been criticised for their lack of contribution to the practice of Management and Leadership (Bennis and O'Toole, 2005; Gold et al., 2011; Petriglieri and Petriglieri, 2015; Tsoukas, 2005). These criticisms include the propensity to focus research outputs on describing the status quo rather than advising how things might be (Tsoukas and Mylonopoulos, 2004). The intention of this research was not to describe CMD as it is but to suggest how CMD interventions might be designed to improve their organisational level impact.

The models and frameworks presented in this thesis have resonated with both those that design CMD interventions and those that commission CMD from Cranfield School of

Management (See Appendix I). Their use in practice within CCED is referred to under the umbrella term '*Design for Impact*'. The intention of the *Design for Impact* approach is to explain how the knowledge, skills and relationships that develop through CMD generate changes in organisational level performance. The approach has led to changes in practice that allow impact to be managed throughout the life of an intervention. It has also facilitated knowledge sharing between Programme Directors about what types of intervention work best within specific contexts.

1.10. Limitations and Directions for Future Research

The aim of design research is not to scientifically test theories that exist within a literature, but to test their pragmatic validity. This is achieved through the development of Mode 2 knowledge (Gibbons et al., 1994) that links interventions and outcomes in specific contexts, to arrive at recommendations of how things should be (van Aken and Romme, 2009; Denyer, et al., 2008; Pascal, et al., 2013; Romme and Damen, 2007).

The models and frameworks proposed within this thesis are not presented as proven theories of CMD impact. At this stage in their development they are presented as *plausible* explanations of how CMD generates organisational level impact. The practical validity of the design propositions has been tested with practitioners associated with Cranfield School of Management; the next stage of their development is to test their validity beyond the practitioner and client base of Cranfield.

The mechanisms identified through this research are presented within this thesis as *plausible* explanations of how impact occurs at the organisational level. Further research is likely to reveal additional mechanisms that have not been identified here. There is also scope to examine the impact of CMD against each of the mechanisms to identify further insights into what works and what doesn't work within specific contexts.

The model presented as an output of this research provides a connection with additional literatures that may be relevant to future CMD researchers. Firstly, the suggested relationship with organisational capabilities draws in new insights from the organisational learning literature relating to the value, development and purpose of organisational capabilities.

Secondly, the role of indirect participants opens up the opportunity to consider contributions from the literature relating to communities of practice, culture and politics.

Not all conjectures within this research have endured through to the final conclusion. The early emphasis on the high control/low control perspective reduced as the research progressed to be replaced with a more nuanced understanding of CMD that is discernible through the final model and its knowledge artefacts.

1.11. Reflections on Design Research as a Methodology

The retroductive process employed in this research allowed for the combination of insights from theory and practice to arrive at new interpretations of the CMD process. Due to the iterative nature of design research, only a small amount of the data and lines of inquiry are presented in this final thesis.

The process used throughout the research consisted of four key elements that have come into play at different times during the six years of study. The process is captured in Figure 7.

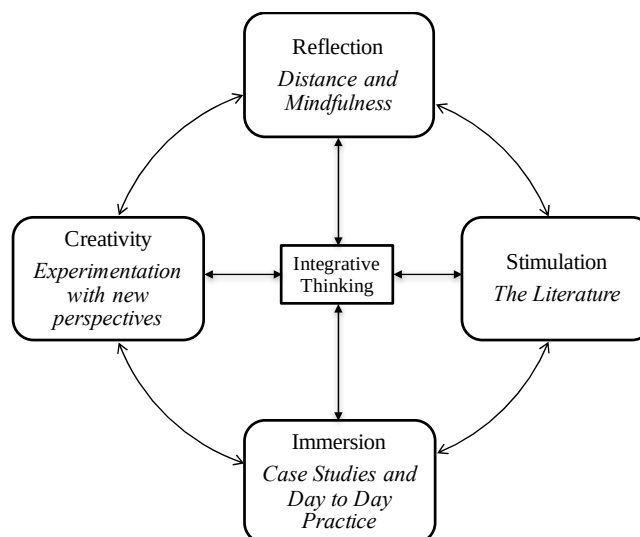


Figure 7: Iterative Thinking

The *Reflection* element of the process relates to noticing what you notice. The initial research question came from a process of reflection which involved standing back from the day-to-day and noticing what puzzled me. During the six years, due to challenges with my health, I have had cause to step back from my studies for extended periods. This forced distance has allowed me to identify new themes that were not easily observable whilst I was immersed in analysing data from interviews and case studies.

The *Stimulation* element of the process relates to the identification of new theories that potentially question or explain observations in the data. Throughout the six years of research I have read extensively outside the key domain of the management development literature. I have also benefitted from working within a university where many chance discussions can stimulate new thinking and lead to new lines of inquiry. What perhaps surprised me the most was how, when reading about research methods, I happened across additional theories that were potentially relevant as explanatory mechanisms of CMD.

The *Immersion* element of the iterative process was about the detail. I primarily used data from the sixty practitioner stories which I coded and recoded in Nvivo. As an active practitioner within the field of CMD, I also had my own experiences to draw upon and became aware of additional stories during my day-to-day practice. In other forms of research my personal experience might be perceived as *bias* that potentially undermined the findings. In Design Research, however, all insights are relevant if they help to uncover new levels of explanation.

The fourth element in the process is *Creativity*. Initially I found the ideas and connections I was noticing to be overwhelming and often confusing. I therefore created diagrams both in Power-point and by white-boarding my ideas with colleagues. Throughout the life of this project I have generated more than 250 slides that were invaluable as a way of reconnecting back to theories, and recalling connections that I had previously made along the way.

Brown (2009, p.85), quoting research by Roger Martin in the *Opposable Mind*, argues that thinkers who exploit opposing ideas to construct new solutions have an advantage over those who consider one model at a time:

“Integrative thinkers know how to widen the scope of issues salient to the problem rather than close them down. They resist the either/or in favour of the both/and, and see non-linear and multi-directional relationships as a source of inspiration not contradiction”.

Without doubt the use of diagrams and images has allowed me to manage what was an ever-increasing range of ideas, that suddenly, almost miraculously, appeared to make sense through the lens of a relatively simple model of impact that has been presented as one of the outputs of this research.

1.12. The Next Sections of the Thesis

In the next sections of this thesis each of the research projects will be presented in more detail.

2. PROJECT ONE: A SYSTEMATIC REVIEW OF THE LITERATURE

2.1. Introduction

The purpose of a systematic review is to map a diverse body of literature in order to assist with future research (Tranfield, et al., 2003). A systematic review differs from a literature review as it provides a more transparent, replicable and systematic way of selecting and synthesizing the existing literature within a domain, thus avoiding the risk of *cherry picking* studies that advocate a particular point of view (Rousseau, Manning and Denyer, 2008).

The aim of this systematic review is to synthesize what is already known about how CMD delivers outcomes at the organisational level in order to propose a model of CMD that can be tested and developed through future empirical research.

Various methodologies are available for synthesizing a literature, however, according to Collins & Denyer (2008), when seeking to understand *Outcomes* (O) it is important to focus on hypotheses about the potential *Mechanisms* (M) or theories through which an *Intervention* (I) seeks to bring about change within specific *Contexts* (C). This is referred to as *CIMO logic*, which is a realist methodology initially proposed by Pawson and Tilley (1997).

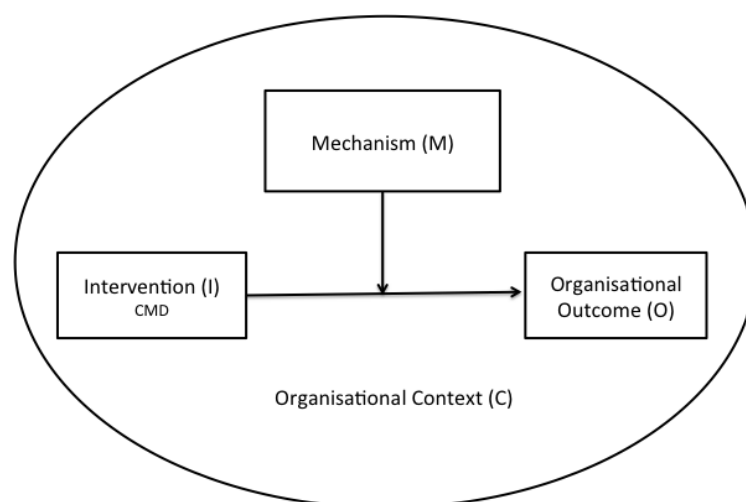


Figure 8: CIMO Logic

CIMO logic differs from positivist methodologies such as meta-analysis that pool outcome evidence to determine efficacy, by providing additional insight into “*when, where, why, for whom and in what respects*” an intervention works (Pawson and Tilley, 1997, p.13).

CIMO logic is appropriate for this synthesis as it will help to explain variation in outcomes at the organisational level and therefore builds on previous syntheses that have concluded that the effects of CMD can vary (Collins and Holton, 2004).

2.1.1. Structure of Project One

Project One (P1) is divided into eight sections. Following the introduction in Section 2.1, Section 2.2 positions the review question within the existing literature. In Section 2.3 the method employed is described in detail in order to provide clarity to the reader with regards to the project’s scope and boundary and to assist other researchers wishing to embark on a similar project. In Section 2.4 there is a descriptive account of the papers that were identified from a key word search of the literature. In Section 2.5 a synthesis of the data from the selected papers is presented using the CIMO framework. In Section 2.6 the results of the synthesis are discussed and a model of CMD is proposed. Section 2.7 highlights the limitations of the project, and finally the next steps in the research process are presented at Section 2.8.

2.2. Position of the Research Question within the wider literature

The purpose of P1 is to examine the literature relating to CMD to identify the implied structures and mechanisms that can be used to build a model of how CMD delivers outcomes at the organisational level. Prior to the systematic review of the CMD literature, a broad search was conducted to identify themes within the literature that might be relevant to the inquiry. A summary of the literature and its relevance to the research question is presented at Appendix F and G.

Throughout the research process connections with the existing literature were maintained by revisiting the topics identified during the broad search to identify their relevance to later observations. The reflexive process is illustrated in Figure 9.

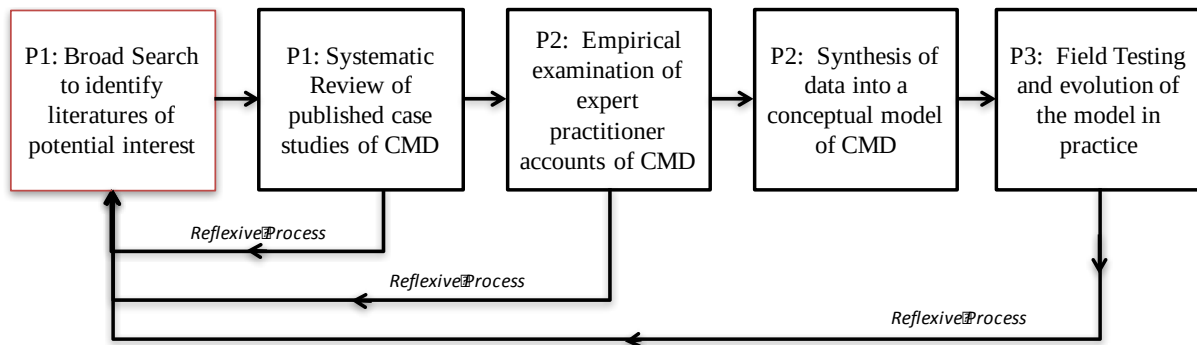


Figure 9: The Research Process

2.2.1. Position of the Research Question within the Target Literature

The CMD literature is a subset of the Management Development literature, which is predominantly a practice based literature that focuses on the development of the individual and collective capability of managers and leaders within specific organisational contexts (Collins & Holton, 2004; Collins & Denyer, 2008).

The Management Development literature is diverse and suffers from a lack of consistency with often ambiguous and conflicting definitions (Baldwin and Padgett, 1994; Lees, 1992). The term management development is used within this research as an inclusive term that includes executive development, leader development, leadership development and practice development.

Based on Mumford and Gold's (2004) representation of Management Development, the literature can be organised into three primary streams. These are illustrated in Figure 10.

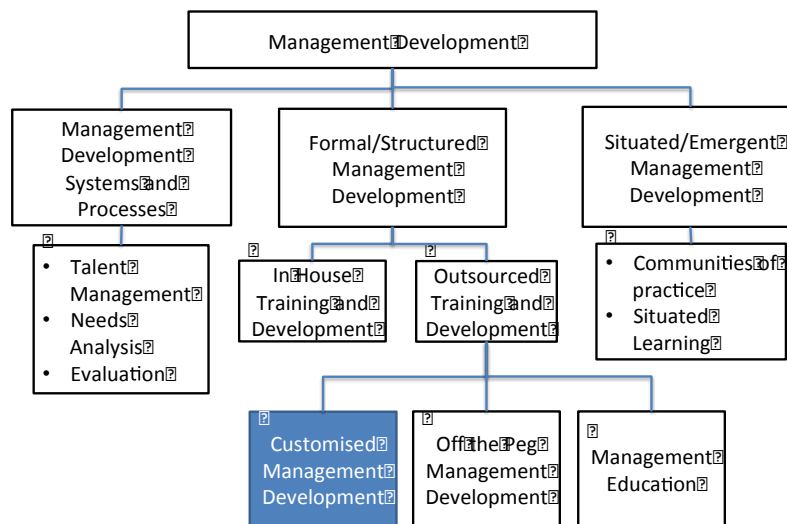


Figure 10: Position of CMD within the literature

The first stream relates to research into the systems, routines and processes of management development such as talent management, needs analysis and training evaluation. The second stream relates to formal development interventions that aim to address deficits in knowledge, skills or attitudes, often identified via organisational competency frameworks or from an analysis of the strategic needs of the firm (Mumford and Gold, 2004). The third stream relates to the situated, naturally occurring development of knowledge, skills and attitudes that take place through practice within the organisation.

The contribution of this research will be to the literature relating to Formal/Structured Management Development that is outsourced yet involves groups of managers from the same organisation.

2.2.2. Previous Syntheses of the Target Literature

In 2005 Cullen and Turnbull published a 25 year review of the management development literature that synthesized previous syntheses by: Wexley and Baldwin (1986), Storey (1989, 1990), Clement (1988) and Baldwin and Padgett (1994). The paper highlighted core issues and trends in management development and provided a framework to help position future

research in the area. Although they were unable to identify a single definition that united studies in the management development field, most definitions had the following common components (Cullen and Turnbull, 2005):

- Management development was often driven by organisational rather than individual needs
- Managers were viewed as resources, and management development was driven by a functional-performance rationale that emphasised the improvement of management effectiveness, and as a result corporate performance

Cullen and Turnbull (2005) divided the literature into three primary fields of inquiry; which are summarised in Table 9:

Field of Inquiry	Outcomes
Why organisations support and invest in management development	<ul style="list-style-type: none"> • Resource based strategies; Tools of ideological control (Lees, 1992) • Organisational change; quality improvement, cost reduction and excellence; attitudinal change and value diffusion; creation of common identity; stretching managerial capabilities (Storey, 1990)
The theories on which management development is based	<ul style="list-style-type: none"> • Human capital and labour market (Macroeconomics and political science) • Organisational contingency (Microeconomics) • Organisational processual (Sociology) • Management learning (Psychology)
How management development happens	<ul style="list-style-type: none"> • Management education • Management training • On the job experiences

Table 9: Fields of Management Development Enquiry

The purpose of this research is to build a model of CMD that explains the variation in outcomes at the organisational level by using CIMO logic, it therefore unites the three categories of research highlighted by Cullen and Turnbull (2005).

2.3. Methodology

When adopting a realist approach to research the first step in the process is to arrive at the structures and mechanisms that are postulated to explain observed regularities. These are then used to create a causal model that can be tested empirically (Blaikie, 2007). The purpose of this systematic review is to complete the first step in this process by identifying the structures and mechanisms that are implied within the existing literature that might explain how CMD delivers outcomes at the organisational level.

To ensure the quality and validity of the review a protocol was developed to guide the process of literature search, selection and synthesis. The review process was overseen by a panel of experts, which consisted of three academics and an information specialist (Table 10).

Name	Title	Role	Purpose
Dr Richard Kwiatkowski	Senior Lecturer in Organisational Psychology	Supervisor	To provide advice and assess the quality and validity of the review.
Professor Cliff Bowman	Professor of Strategic Management	Supervisor	To provide advice and assess the quality and validity of the review.
Professor David Denyer	Professor of Organisational Change	Expert in Systematic Review and Panel Member	To provide advice and assess the quality and validity of the review.
Ms Heather Woodfield	Information Specialist, Kings Norton Library	Literature Search Advisor	To advise on the literature search methodology.

Table 10: Systematic Review Panel

2.3.1. Search Strategy

The first step in the systematic review process was to identify empirical and conceptual papers from the existing literature that might help to answer the research question.

The Research Question: *“How does Customised Management Development generate organisational outcomes?”*

Relevant papers were identified using keywords developed by separating the research question into its key components and identifying through trial and error synonyms commonly found within the literature (see Table 11).

“[Case studies] explain the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies”(Yin, 2009, 1.677).

An additional keyword ‘case study’ was included in the search as case studies are a particularly rich source of data for realist methodologies that attempt to explain how interventions work (Blaikie, 2007; Easterby-Smith et al., 2008; Stake, 2006; Yin, 2009).

Component	Keyword
Management Development	Management development, executive development, leadership development.
Outcome	Outcome*, Impact, effect*, affect*, return*, performance, evaluation
How	Process*, system, method*
Case study	Case study

Table 11: Keywords

Once identified, each keyword was tested for the number of hits generated when combined with another keyword. A proximity operator of three words was used to increase relevance.

Example: ‘management development’ w/3 ‘impact’:

Hits: 85

In the example above both *management development* and *impact* were subsequently added to the list of keywords as the combination resulted in the generation of 85 potentially relevant hits. The component *how* was replaced by the keywords *process**, *system* and *method*. *Customised* was not selected as a keyword as an initial search of the literature revealed that it rarely appeared in the title or abstract of papers:

Example: *customi*ed w/3 "management development"*

Hits: 9

Papers that specifically related to Customised Management Development were identified later in the search using inclusion/exclusion criteria (see Section 3.3 below).

	Search String	Hits ABI	Hits EBSCO
1	process w/3 "management development" OR all method* w/3 "management development" OR system w/3 "management development" OR outcome* w/3 "management development" OR impact w/3 "management development" OR effect* w/3 "management development" OR affect* w/3 "management development" OR return* w/3 "management development" OR performance w/3 "management development" OR evaluation w/3 "management development" OR "case study" w/3 "management development"	533	115
2	process w/3 "leadership development" OR method* w/3 "leadership development" OR system w/3 "leadership development" OR outcome* w/3 "leadership development" OR impact w/3 "leadership development" OR effect* w/3 "leadership development" OR affect* w/3 "leadership development" OR return* w/3 "leadership development" OR performance w/3 "leadership development" OR evaluation w/3 "leadership development" OR "case study" w/3 "leadership development"	123	95
3	process w/3 "executive development" OR method* w/3 "executive development" OR system w/3 "executive development" OR outcome* w/3 "executive development" OR impact w/3 "executive development" OR effect* w/3 "executive development" OR affect* w/3 "executive development" OR return* w/3 "executive development" OR performance w/3 "executive development" OR evaluation w/3 "executive development" OR "case study" w/3 "executive development"	16	17
	Total Scholarly Peer Reviewed Papers	672	267

Table 12: Search Strings

The search strings in Table 12 were derived using the keywords from Table 11 with a 3-word proximity operator. A total of 672 scholarly peer reviewed papers were initially identified from the use of the three search strings in ABI Inform/Complete.

The search strings were amended slightly for use in EBSCO Business Source Complete in accordance with the site's search protocol. The search of EBSCO Business Source Complete produced a total of 267 scholarly peer reviewed papers. This included papers that also appeared in the search of ABI Inform/Complete. Duplicates were removed once the papers had been uploaded to RefWorks.

ABI/Inform Complete was selected as a suitable database as it features journals, dissertations and working papers, and business periodicals from around the world. EBSCO Business Source Complete was selected as it indexes a significant number of scholarly business journals from the last 100 years. Although there is a significant overlap between ABI Inform Complete and EBSCO Business Source Complete, both databases were included in the search as there are a small number of journals that are unique to each. Due to the large number of papers that were identified from the two databases it was not considered necessary to include other databases in the search.

Additional papers were identified and included in the review based on the recommendation of panel members and the identification of potential papers through *snowballing* where papers of interest are identified from the reference list of papers that appear in the initial search.

2.3.2. Inclusion, Exclusion Criteria

The complete search resulted in a preliminary review of 955 papers for relevance using the criteria detailed in Table 13. The use of inclusion criteria reduced the number of papers from 955 to 116 papers. The 116 papers were then subjected to a process of quality appraisal.

Criterion	Inclusion	Exclusion	Rationale
Relevance	Customised Management Development Programmes	Non customised Programmes Non management programmes	The aim of the research is to examine the organisational outcome of management development involving cohorts of managers from the same organisation
	Programmes delivered with the support of an external provider or facilitator	Programmes delivered internally by full time employees of the firm without the support of an external provider or facilitator	The purpose of the research is to gain new insight into the role and practice of external providers such as business schools
	Organisational case studies describing management development interventions	Papers reviewing organisational processes for the development of programmes	The research question is how interventions deliver organisational outcomes
Type of Publication	Scholarly peer reviewed papers	General press articles, working papers, reports	Only scholarly peer reviewed papers were selected to increase the quality of papers in the search

Table 13: Selection Criteria

2.3.1. Quality Appraisal

To ensure consistency a template was developed to assess the quality of papers (See Appendix J and K). Empirical papers were evaluated for descriptive quality using questions developed from Petticrew and Roberts (2006) and conceptual papers were evaluated for their contribution to theory using questions developed from Huff (1999).

A pilot test of the quality template resulted in minor modifications to the scale. Where possible, objective measures were used to assess each paper, for example the number of references and citations. Where objective measures were not practical a more subjective assessment was made by the researcher based on guidance by Petticrew and Roberts (2006) and Huff (1999).

The results of the quality review were recorded in a spreadsheet to allow for a comparative analysis of the papers (See Appendix L and M). The final selection of case studies for synthesis (Appendix N) was based on their narrative quality, as validity is less important when developing a rich picture to establish general principles (Easterby-Smith et al., 2008;

Stake, 2006). The selection of conceptual papers was based on an assessment of the paper's content validity and contribution to the literature.

2.3.2. Data Extraction and Synthesis

A *retroductive* method, aligned with the realist ontology (Blaikie, 2007), was used to extract and synthesise the data from the papers. The *retroductive* method uses a spiral process of discovery rather than linear logic, to arrive at a hypothesized model that can then be tested through empirical research. The logic of discovery combines both inductive and deductive methods to identify structures and mechanisms. The discovery process requires the use of creative imagination and intuition and therefore is most appropriate for the development of hypothetical structures and mechanisms during the early phase of model development (Blaikie, 2007). The iterative process employed for data extraction and synthesis is illustrated at Figure 11:

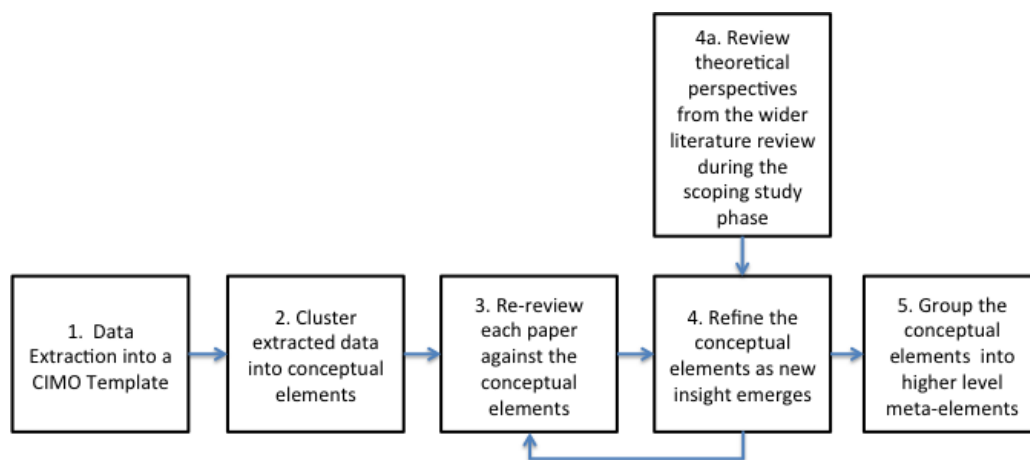


Figure 11: The process of data extraction and synthesis

CIMO data was initially extracted from each paper using a template. Data from each template was then captured in a spreadsheet which allowed for categorisation and comparative analysis. As conceptual elements emerged from patterns in the data, the papers were re-reviewed to check the relevance of each element and to refine the definitions. Higher-level meta-categories were established from the conceptual elements by grouping them together based on a combination of insights from theoretical perspectives that emerged during the broad search of the literature and clusters that appeared specifically within the literature (See Appendix O). The example in Table 14 illustrates the clustering of conceptual

elements in the form of intervention outputs to arrive at the implied *Mechanism* component of CIMO.

Mechanism (Meta-Categories)	Intervention Outputs (Conceptual Elements)
Knowledge: the active use of knowledge and skills in practice	<ul style="list-style-type: none"> • Procedural Knowledge • Declarative Knowledge • Skills • Competencies
Learning: as an adaptive capability	<ul style="list-style-type: none"> • Motivation for continued personal development • Motivation to support the development of others • Meta-Abilities
Social Capital: as an enabler for the exchange of organisational resources	<ul style="list-style-type: none"> • Change in Relationships • Change in Networks • Change in levels of Trust

Table 14: Illustration of the development of mechanisms

2.4. Descriptive Account of the Literature

The following descriptive account of the literature is based on the 116 papers that were initially screened for quality. Figure 12 illustrates the number of papers published each year. The majority of papers were published during the last ten years.

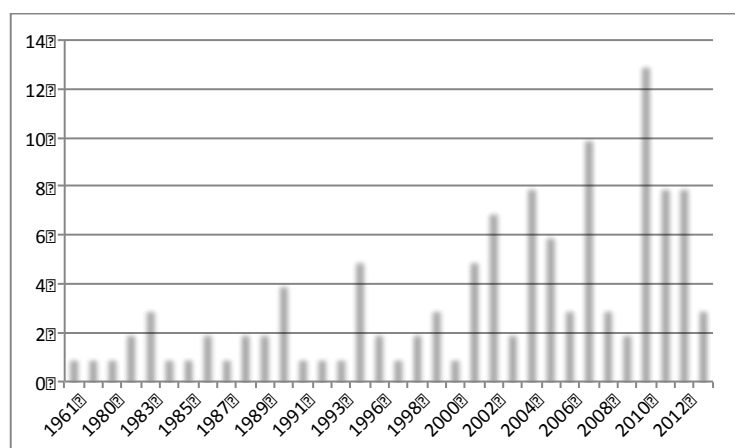


Figure 12: Distribution of papers by date

The purpose of the papers identified from the literature search is illustrated in Figure 13.

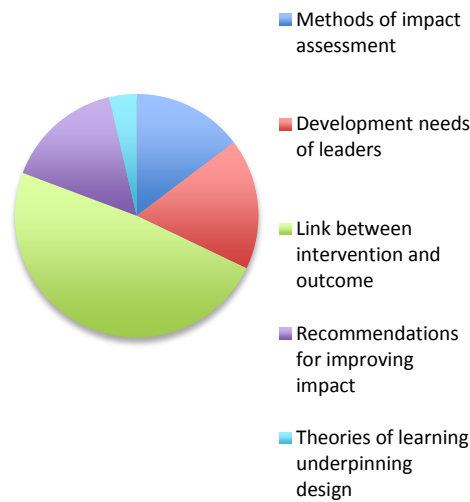


Figure 13: Distribution of papers by purpose

Roughly a quarter of the papers identified were conceptual papers that either drew their inspiration from the author's prior knowledge or from a search of the literature. The remaining papers were illustrative examples of management development that were either written to emphasise a conceptual point or involved empirical research into the process and outcomes of CMD (Figure 14).

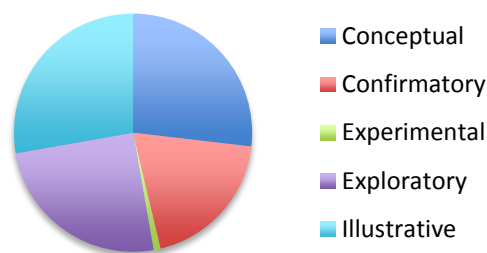


Figure 14: Distribution of papers by type

Less than half of the papers provided quantitative data (Figure 15). The most frequently used quantitative measures were data collected from staff opinion surveys and 360-degree feedback reports. Only a small number of papers provided quantitative data to support

organisational performance outcomes such as evidence of operational efficiency or increased sales.

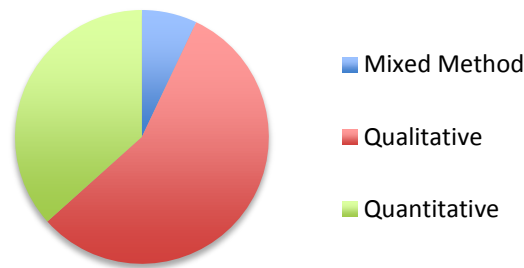


Figure 15: Distribution of papers by method

Of the qualitative papers, various techniques were used to collect, analyse and present data. The analytical papers utilised techniques such as structured interviews and discourse analysis, whereas the illustrative case studies presented quotations to demonstrate key points.

The level of analysis within the papers was split almost equally between a focus on organisational outcomes and a focus on individual outcomes (Figure 16).

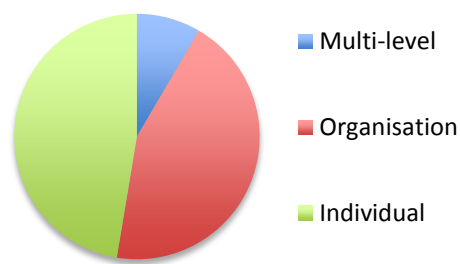


Figure 16: Distribution of papers by level of analysis

Those papers that focused on the individual level predominantly focused on changes in the leadership or management performance of participants and the impact this had on the performance and behaviour of other employees within the organisation over time.

Those papers that focused on the organisational level inferred that the participants were agents who attended the CMD intervention to learn on behalf of the organisation through

knowledge sharing and reflective activities. This learning was then believed to influence sporadic or transformative changes to the organisation's strategy, structure or processes.

The overall descriptive quality of the case studies was lower than anticipated prior to the review with many consisting of anecdotal accounts of interventions by practitioners rather than empirical research employing methodologies consistent with the advice of experts in case study research such as Yin (2009) and Stake (2006).

Sixty-six percent of the papers were found to contain an adequate or above (3 or above on the scale at Appendix J) description of the intervention. This was the highest scoring question on the quality template (Appendix L). Typically, the papers would describe the intervention's method and propose a theory of how learning occurs. The most frequently quoted resource required to support interventions was the amount of time required for development. Only one paper by Avolio et al (2010) presented the cost of the intervention with the intention of calculating the return on investment.

Sixty-three percent of the papers provided an adequate or above (3 or above on the scale) description of the organisational context in which the programme was delivered. In many cases information on context included a description of the organisation, the trading or operational environment, and the specific challenges that the organisation was wishing to address by investing in the development intervention. The organisational context was not discussed with regards to its impact on the efficacy on the intervention.

Only thirty-two percent of the papers contained adequate descriptive data about the participants. In many cases, descriptive data was limited to the participants' level of seniority. Surprisingly little attention was paid to the participants' experience and prior knowledge as an input to the development process. This finding suggests that many of the authors view participants as relatively passive in the process of development. This view is contrary to theoretical perspectives of adult learning such as andragogy (Knowles, et al., 1998) and theories of social learning (Bandura, 1977, 1986) that suggest that participant involvement and experience are essential to learning.

Only twenty-four percent of the papers described negative outcomes from the intervention and only seventeen percent of the papers referred to participants who failed to complete the intervention or refused to provide evidence of impact. In cases where dropouts were mentioned, the loss of participation was commonly treated as disruptive to the data rather than as a source of potentially important information about efficacy.

The positive bias observed within the literature may be because the literature is predominantly a practitioner literature where in many cases the authors were directly involved in the delivery of the intervention for paying clients. This is a major weakness within the literature with the overtly positive perspective of CMD potentially holding back the development of new insights into efficacy that can be gained through the analysis of interventions where the outcomes are either unanticipated, or judged to have had a negative impact on the individuals and/or organisations in which they practice.

Only fourteen percent of the papers provided adequate descriptions of the tutors, their teaching style and experience. Tutor descriptions were most frequently presented as a short biography where the tutor was also the author of the paper. Only one of the case studies, Gibb (2004), suggested that negative outcomes from the intervention were linked to the capability of the tutor. The lack of focus on tutor and tutor characteristics may be linked to the author's dual role as observer and practitioner. Further analysis of CMD by independent observers may result in new insights into the impact of tutors and tutor characteristics in specific contextual settings.

Overall, findings from the quality review revealed a disproportionate focus on change at the individual level from a pedagogical perspective. There were also infrequent or limited references to the impact of contextual factors on the efficacy of outcomes. This finding is consistent with other syntheses of the literature (Blume et al., 2010).

2.5. Findings

Findings from the analysis of the literature are presented using the CIMO framework. The case studies that were included in the synthesis are summarized in a table held at Appendix N.

2.5.1. Contextual Factors

“A mass of different contextual constraints lurks in wait for every programme and the interrelationships, institutions and structures in which it is embedded all shape its fortune” (Pawson, 2006, p. 24).

For the purpose of analysis the process of CMD was broken down into three distinct phases *Design, Delivery* and *Application*. The design phase involves the identification of needs and commissioning of an intervention by sponsors. The delivery phase involves the engagement of participants in development activities. The application phase involves the use in practice of what has been learnt by participants.

Three categories of contextual factor emerged from the analysis of the literature. The first related to the multiple stakeholder groups of CMD including those who sponsor, deliver, and participate in interventions. The second related to the communities of practice that participants were drawn from and returned to, and the third related to the sponsoring organisation. A synthesis of the contextual factors identified within the literature split between the three phases of CMD is presented in Table 15:

CONTEXTUAL FACTORS						
CMD Phase	Stakeholders				Community of Practice	Organisation
		Sponsor	Provider	Participant		
	Design	Motive, Assessment of needs	Pedagogical approach	Role requirement, Understanding of purpose	Sub-culture	Environment, Strategy, Culture
	Delivery	Involvement, Role Model	Capability, Role	Ability, Personality, Motivation		
	Application	Support		Personality, Motivation, Opportunity	Support, Role models	Culture, Existing Routines

Table 15: Contextual factors relevant to CMD: Source: Synthesis of CMD Literature

Three categories of stakeholder emerged from the analysis *programme sponsors, providers of CMD*, and the *participants* who take part in CMD.

2.5.1.1. Senior Managers

In practice, there are usually multiple programme sponsors including senior management, human capital professionals, and the managers of participants. The literature tends to focus on the role of senior managers as sponsors of the intervention who initiate the investment and establish the parameters for development (Berger, 1989; Cullens & Waters, 2012; Espey & Batchelor, 1987; Lees, 1992; Mumford & Gold, 2004).

The sponsor's accurate assessment of organisational needs and motives for investing in CMD will have an impact on the overall efficacy of the intervention (Brown, 2003). The CMD literature was found to have a functional performance bias with sixty-six percent of the papers focusing on outcomes associated with the organisation's operations. Lees (1992) argues that it is often assumed that the motive for investing in CMD is performance, but that a further nine motives exist that often are not formally stated. These motives are presented in Table 16.

Rationale	Description
Functional Performance	To improve managerial functioning and corporate performance
Agricultural	To develop the capability of future managers
Functional-Defensive	Just in case new thinking is needed some time in the future
Socialisation	To engage participants with the corporate ethos and culture
Political Reinforcement	To align participants with senior managers views of how organisational performance is to be achieved
Organisational Inheritance	As a rite of passage or promise of future potential
Environmental Legitimacy	To comply with the expectations of external stakeholders that the organization is legitimate as it invests in its people
Compensation	As a way of rewarding participants for their ongoing contribution to the company
Psychic Defence	To ensure that managers are ahead in their thinking of those they are trying to manage and lead
Ceremonial	To legitimize or celebrate the social progress of managers through the organisation

Table 16: Sponsor Motives for Investing in CMD - Source: Lees (1992)

The existence of multiple and potentially conflicting sponsor motives may have an impact on perceptions of the intervention's efficacy, particularly if motives and assumptions remain unstated and therefore are not available for reconciliation across the stakeholder group. This

issue was not addressed within the CMD literature, which in most cases assumed a singular motive that was not questioned by the authors of the papers.

The ongoing involvement of senior managers beyond the commissioning phase role modeling behaviours, demonstrating their commitment to learning, and supporting application efforts, is stated to have a positive impact on participant motivation and ultimately an intervention's efficacy (Ardts, van der Velde, & Maurer, 2010; Berger, 1989; Brown & May, 2012; Cullens & Waters, 2012; Simmonds & Tsui, 2010; Thach, 2002).

2.5.1.2. The Provider

The competence of the provider and their approach may also impact the efficacy of an intervention (Buckley and Monks, 2008; Gibb, 2004). Joo (2005) discusses the attributes associated with coaches such as *integrity, confidence, experience* and *academic background*, which he argues inform the provider's choice of development approach and the effectiveness of the intervention. Such attributes may also apply to providers of other types of intervention, but as this was not discussed within the CMD literature it would need to be established through future research.

2.5.1.3. The Participants

The *fit* of the development intervention with the requirements of the participant's individual role (Boaden, 2006; Jackson, et al., 2003), their *understanding of the purpose* of the intervention (Ardts, et al., 2010) and the impact of their *personality, ability, learning style, perceptions, psychological state* and *motivations* were discussed within the literature (Baldwin and Ford, 1988; Baldwin and Padgett, 1994; Bernthal, et al., 2001; Black and Earnest, 2009; Blume et al., 2010; Collins and Holton, 2004; Hotho and Dowling, 2010; Ladyshevsky, 2007; McCarthy and Garavan, 2007; Schein, 1961).

Boaden (2006) and Jackson et al., (2003) make a distinction between the roles and responsibilities of managers, who are defined to be more *transactional* with responsibility for planning, organising and controlling resources to achieve orderly, predictable outcomes, and those whose role it is to be more *transformational* with responsibility for establishing future vision and leading change (see Table 17). Jackson et al (2003) argue that the efficacy of the

intervention will be dependent on its alignment with the specific needs and role expectations of participants.

	Transformational attributes	Transactional attributes
Approach	Innovative (creates opportunity, imagines new areas to explore)	Balance of operations
Focus	On vision, values, expectations and context	On control, production and results
Uses	Influence (power)	Control
Values	Co-operation, unity, equality, justice and fairness in addition to efficiency and effectiveness	Co-ordination, efficiency and effectiveness
Communication	Indirectly and directly, giving overlapping and ambiguous assignment	Directly, giving clear direction, solitary assignment
Main tasks	Defines and communicates goals, motivates	Implements goals, referees, coaches
Thinking time frame	Futuristic (tomorrow and the day after)	Current (yesterday's output and today's problems)
Thinking context	Global	Local
Main direction	Renewal	Maintenance

Table 17: Distinction Between Transformational and Transactional Leadership (Jackson, Farndale and Kakabadse, 2003).

The participant's ability and personality were also believed to shape reactions to an intervention such as the level of cynicism (McCarthy and Garavan, 2007) and the extent to which they attempt to change their personal behaviour, or believe that what happens in practice is beyond their control (Berg and Karlsen, 2012; Hotho and Dowling, 2010; Kawalek, 2006; Maurer and Palmer, 1999).

The impact of participant characteristics has been a focus for research within the training transfer literature. Individual level factors that have a relationship with outcomes at the organisational level were identified from a meta-analytic review of the training transfer literature conducted by Blume et al. (2010), who noted that many of the findings were inconclusive due to inconsistency across studies in the use of measures, conflicting outcomes and differences in the nature of skills being developed. Whilst being mindful of these limitations, the factors identified in their review are presented in Table 18:

Personality Factors	Other Personal Factors
Cognitive Ability Conscientiousness Neuroticism Pre-training self-efficacy Motivation Learning Goal Orientation Big Five Personality Dimensions	Age Education Gender Experience

Table 18: Participant Characteristics - Source: Blume et al., (2010)

2.5.1.4. The Community of Practice

The participant's community of practice was highlighted as a contextual factor most commonly associated with the implementation of learning post intervention. The impact of both positive and negative peer pressure and levels of support from the participant's direct supervisor were often regarded as contributing factors to the transfer of learning (Baldwin and Ford, 1988; Blume et al., 2010; Schein, 1961; Maurer and Palmer, 1999). The extent to which participants felt that they could be honest and open when feeding back what they had learnt to the senior managers in their community of practice (Thorne and Wright, 2005), divergence in priorities, and variations in ways of working emphasized during the intervention with local ways of operating, were also highlighted as barriers to learning transfer and a cause of organisational conflict. This often resulted in participants choosing to leave the organisation post training (Boaden, 2006; Burke and Collins, 2005; Glastra and Meerman, 2012; Keating, et al., 2001; Simmonds and Tsui, 2010).

2.5.1.5. The Organisation

At the organisational level factors identified were considered to influence both the design of the intervention and its efficacy. These factors included the fit with the organisation's strategy, the fit of the strategy with the organisation's environment (Antonacopoulou, 2001; Brown, 2003, 2005; Brown, 2007) and the fit of the intervention with the organisation's culture and method of operating (Buckley and Monks, 2008).

Galli and Stewens (2012) and Brown (2003) both stress the importance of aligning CMD with the organisation's strategy. This was argued to be particularly important where the

purpose of an intervention is to address organisational level rather than individual level development needs. In cases where there is a fit between the development intervention and the organisation's strategy, it was argued that outcomes would be dependent on the quality of the strategy (Antonacopoulou, 2001; Brown, 2003, 2005, 2007; Brown, 2007).

Brown (2003), Buckley and Monks (2008), Antonopoulos (2001) and Jackson et al (2003) all argue that the climate in which the organisation operates and the extent to which it is relatively dynamic or static should have a bearing on the design and focus of CMD interventions. They propose that in organisational environments that are relatively stable there is often a focus on high levels of efficiency, achieved through the standardisation of process and quality of execution. In such environments, it may be desirable to exert a greater level of control over behaviour. This may be achieved through the development of procedural knowledge that represents a series of cognitive steps that guide actions, resulting in the development of routinized behaviour (Burke and Collins, 2005).

In dynamic or complex environments, the standardisation of management competency and behaviours may be less effective, as it is not possible to predict the specific behaviours that will be required. In such cases Buckley and Monks (2008) argue that the focus for development should shift to higher-level meta-abilities that drive the use of knowledge and skills in practice.

Table 19 provides an overview of the Meta-Abilities that were found in the literature. The meta-abilities in the table are developmental in their nature and related to the ability to learn and adapt over time at both the organisational and individual level.

Reference	Meta-Abilities
Ladyshevsky (2007)	<ul style="list-style-type: none"> • Alternative Perspectives: The ability to identify and accept alternative perspectives • Knowledge Expansion: the ability to take in new knowledge • Self-Awareness: The understanding of one's own perspectives and bias • Cognitive Conflict: The ability to positively engage in debate and discussion to achieve a higher level of understanding • Shared Perspectives: The ability to put aside individual experience to accept a shared perspective

Buckley and Monks (2008)	<ul style="list-style-type: none"> • Cognitive Skills • Self-Knowledge • Emotional Resilience • Personal Drive • Creativity • Mental Agility • Balanced Learning Habits and Skills • Self-Directed Proactivity • Critical Reflection
Caligiuri and Tarique (2009)	<ul style="list-style-type: none"> • Cross Cultural Knowledge

Table 19: Meta-Abilities

In organisational cultures that are collaborative and encourage learning, CMD was believed to facilitate the development of social networks, personal growth, organisational learning outcomes, problem solving, and innovation (Brown & May, 2012; Buckley & Monks, 2008; Cullens & Waters, 2012; Espedal, 2004; Espey & Batchelor, 1987; Gibb, 2004; Hordern, 2012; Overmeer, 1997).

In cultures that are authority-oriented, CMD was viewed as an instrument of *organisational control* (Finch-Lees et al., 2005), the aim of which was to standardise management behaviours, and align capabilities with prescribed organisational practices (Buckley and Monks, 2008; Espedal, 2004; Finch-Lees, et al., 2005; Kawalek, 2006).

Glastra and Meerman (2012) and Simmonds and Tsui (2010) both argue that the misalignment of an intervention with an organisation's culture can result in conflict, particularly where learning is not implementable or is considered disruptive to current practice. The existence of multiple sub-cultures within the same organisation increases the risk of misalignment and therefore the risk of conflict arising (Boaden, 2006).

2.5.2. Intervention

“Interventions are always based on a hypothesis that postulates ‘If we deliver a programme in this way... then it will bring about some improved outcome’. Such conjectures are grounded on assumptions about what gives rise to poor performance,

inappropriate behaviour and so on, and then move to speculate how changes may be made to these patterns.” (Pawson, 2006: p26)

The CMD interventions discussed in the literature were designed to address a mix of seven key deficiencies (Table 20):

Deficiency	Description
Attitude	Values, beliefs, emotions, motivation and tolerance
Skill	Specific expertise and abilities
Competency	An aggregate of skills and behaviours that are required to perform a task or function
Procedural Knowledge	Knowledge of how to perform an activity
Declarative Knowledge	Network of facts that make up the working memory and understanding
Meta-cognitive	The mental processes that control the development and use of knowledge
Meta-capability	Higher order enabling capabilities that drive the use of knowledge and skills in practice

Table 20: Summary of Management Deficiencies Discussed in the Literature

The literature suggested that deficiencies are addressed by initiating learning at the individual, group and organisational levels. Four theories of how learning occurs within the intervention were identified (Table 21):

Learning Theory	Description
Technical Pedagogy	The transmission of fact and the application of concepts and theories at an abstract level
Andragogy (Knowles, Holton and Swanson, 1998)	Learning that draws on life experiences as a learning resource
Experiential Learning (Kolb and Kolb, 2005)	Concrete experiences and reflection that lead to conclusions that are then put into practice through new experiences
Social Learning (Bandura, 1986)	Co-reflective practice to arrive at shared meaning and identity
	Mimicry: The observation of others behaviours in a particular context, committing them to memory in order to emulate them in similar contexts

Table 21: Learning Theories

Day (2001) distinguishes between two different types of CMD intervention, *leader development* that focusses on change at the individual level, and *leadership development* that focuses on change at the group level. The difference in focus between leader and leadership interventions is presented in Table 22.

	Development Target	
<i>Comparison Dimensions</i>	Leader	Leadership
Capital Type	Human	Social
Leadership Model	Individual <ul style="list-style-type: none"> • Personal Power • Knowledge • Trustworthiness 	Relational <ul style="list-style-type: none"> • Commitments • Mutual Respect • Trust
Competence Base	Intrapersonal	Interpersonal
Skills	Self Awareness <ul style="list-style-type: none"> • Emotional awareness • Self confidence • Accurate self image Self Regulation <ul style="list-style-type: none"> • Self control • Trustworthiness • Personal responsibility • Adaptability Self Motivation <ul style="list-style-type: none"> • Initiative • Commitment • Optimism 	Social Awareness <ul style="list-style-type: none"> • Empathy • Service orientation • Political awareness Social skills <ul style="list-style-type: none"> • Building bonds • Team orientation • Change catalyst • Conflict management

Table 22: Day's (2001) Distinction between Leader and Leadership Development

2.5.2.1. High and Low Control Interventions

The interventions described within the literature could be categorised according to the assumed level of control the tutor had on learning outputs (Tables 24 and 25). The categorization was made according to an analysis of the underlying assumptions made by the author, rather than the methods that were employed within the intervention. The high control/low control categorisation emerged from a synthesis of perspectives from Blume et al (2010), Buckley and Monks (2008), Hotho and Dowling (2010), Fulmer (1997) and Sigaloff et al (2007). These are presented in Table 23. Blume (2010) argues that the distinction between intervention types may be significant with regards to the mediating impact of contextual factors such as work environment and personal attributes including participant motivation and cognitive ability.

Author	Focus	High Control	Low Control
Blume (2010)	Skills	Closed Skills: Where use in practice is prescribed as part of the development intervention	Open Skills: Where there is choice about how and what to apply in practice
Buckley and Monks (2008)	Development Style	<ul style="list-style-type: none"> • Authority oriented climate, individual competition • Linear Newtonian philosophy, seek the right answer • Teacher/manager as expert • Defined tasks or subject structure • Hierarchical, formal, rigid role and rules • Unidirectional power, inequality • Individual effort and appraisal • Low risk consistency 	<ul style="list-style-type: none"> • Collaborative mutually open systems • No one right answer • Teacher/manager as collaborator, fellow sense maker • Experience as resource, adaptation • Informal mutual diagnosis and evaluation • Group-oriented development and review • Multi-directional power, equity of input • Support for innovation and risk
Hotho and Dowling (2009)	Making sense of learning events	The Self: Corporate Learner: Delivered to Programme: Fixed Identity: The programme develops the individuals' competencies/knowledge Context: Org context can be a barrier to learning after the event	The Self: Co-constructed through sense making Learner: Makes sense of Programme: The learner makes sense of the event in the context of individual and org features Identity: The programme is evaluated by the learner in relation to his/her sense of identity Context: Org context shapes how learners make sense of the learning event
Fulmer (1997)	Paradigms of Leadership Development	Participant: Listener Design: Event Purpose: Knowledge Period: Past Players: Specialists Presentations: Style Place: University	Participant: Learner Design: Ongoing process Purpose: Action Period: Future Players: Partners Presentations: Process/Outcome Place: Anywhere
Sigaloff et al., (2007)	Intervention	Input-type: Top down control and instruction	Closure-type: Internal coherence from connectedness

Table 23: High Control verses Low Control Perspectives. Source: Synthesis of CMD Literature

2.5.2.1.1. High Control Perspectives

Table 24 lists the papers that align with the high control perspective of CMD. The *high control* perspective, described by Hotho and Dowling (2010) and Fulmer (1997) as the *traditional view* is based on a linear representation of management learning.

With the high control perspective, CMD is often designed to reduce a gap between perceived organisational needs on the one hand and management capabilities on the other.

Knowledgeable experts are commissioned to address the perceived gap through the instruction of managers, which is believed to instigate individual level learning that will have an immediate impact on behaviour in practice.

Reference	Corporate Context	Intervention	Anticipated Outcome	Study Purpose
Abrell, et al (2011)	Drug Development	Transformational Leadership Skills	Leadership Behaviour	Evaluation of development programme
Avolio et al (2010)	Various	Talent Development	ROI	How to calculate ROI
Bailey & Fletcher (2002)	Automobile Recovery Service	Multi-Rater Feedback	Management Competence	MRF as diagnostic tool/measure of change
Baron et al (2011)	Manufacturing Company	Coaching	Leadership Competence	Working Alliance and Self-efficacy Outcomes
Berg & Karlsen (2011)	Multinational	Training/Coaching Leadership Toolbox	Management Performance	Evaluation of training and coaching
Berthnal et al (2001)	Glass and Paint Manufacturer	Assessment for development	Personal performance	Factors associated with training transfer
Boaden (2006)	NHS	MSHRM Leadership	Professionalisation of HRM	Evaluation of development programme
Bramley (1999)	Various	Change management Styles	Organisational Performance	Evaluation of learning
Brodie (1983)	Diversified Industrial Company	Build critical mass of trained managers	Networking/Conflict	Evaluating Predictability of MD
Brown & May (2012)	Large Manufacturing Company	Transformational Leadership Skills	Productivity/Job Satisfaction	Efficacy of transformational Leadership Development
Burnett & James (1993)	British Telecom	Women Leaders Career Development	Behavioural change	Body/mind work as an approach to MD
Burke & Collins (2005)	Various	Conflict handling skills	Individual Skills	Optimising development effects
Currie (1995)	Large Service Company	Competency based development	Focus on assessment not learning	Critique of competence approach to MD
Dexter (2007)	Derby City Council	Leading Manager Development	Management/teamwork/networks	Organisational impact of leadership development
Espey & Batchelor (1987)	United Distillers Group	Customised MBA	Individual Career Development	Case study to describe an approach to MD
Finch & Lees et al (2005)	Multinational Consumer Goods	Competency based development	Carrier of organisational ideologies	Critique of competence approach to MD
Gentry & Martineau (2010)	Public Schools	Educational Leadership Development	Vision, Teamwork and Performance	Evaluation of change over time via linear modeling
Glastra & Meerman (2012)	Dutch Tax Office	Career Development for minority groups	Conflict of expectations	Insight into the realization of diversity goals
Hamlin & Stewart (1990)	School Head Teachers	Competency based development		Identification of universal competencies
Jackson et al (2003)	Various	Senior Managers and Top Team	Alignment with corporate strategy	How MD meets the needs of top teams and boards
Ladyshewsky (2007)	Public Sector Agency	Middle Level Management Development	Individual Skills	Evaluation of methods for learning transfer
Maurer & Palmer (1999)	Telcommunication Company	Supervisory Multi-Rater Feedback	Individual Skills	Theory of planned behaviour/intentions to improve
McCarthy & Garavan (2007)	Financial Services Company	Multi-Rater Feedback	Individual Skills	Impact of cynicism/procedural fairness factors
Seifert & Yuki (2010)	Regional Grocery Chain Store	Multi-Rater Feedback	Individual Skills	Factors that make CMD more effective
Thach (2002)	Global Telecommunications	360 and coaching	Leadership Effectiveness	Impact of executive coaching and multi-rater feedback

Table 24: High Control Case Studies. Source: Synthesis of CMD Literature

There is an implied assumption with the high control perspective that outcomes at the organisational level will align directly with the original needs identified by the programme sponsor.

The objective of high control CMD is often to achieve homogeneity of approach, perfection and quality outcomes (Buckley and Monks, 2008). The decision about what is to be learnt, how, by whom and when is predominantly in the hands of those who sponsor, design and deliver CMD (Hotho and Dowling, 2010).

The role of the tutor in such interventions can be described as an instructor or ‘*sage on stage*’ (Elias and Merriam, 2005) who is there to either *supplement* the participant’s knowledge or *change* their behaviour in some way (Sigaloff et al., 2007; Buckley and Monks, 2008). The assumption that underpins the high control approach is that knowledge is scientific, universal, known, generic, and programmed, and can be transferred to participants via pedagogical inputs that lead to outputs in the form of learning and application (Buckley and Monks, 2008; Fulmer, 1997).

The high control approach is consistent with a perspective of learning that predominates in both the training transfer literature, that examines the relationship between learning that takes place in a development setting and behaviour in practice (Blume et al., 2010), and linear models of training evaluation such as Kirkpatrick (1996) which connect learning with participant reactions to the intervention, behaviour in practice, and ultimately organisational outcomes.

The theories of learning that underpin the high control approach are pedagogical and related to cognitive and instructional theory.

2.5.2.1.2. Low Control Perspectives

The case studies that are consistent with the Low Control perspective of CMD are listed in Table 25. The low control approach to CMD described by Hotho and Dowling (2010) as the ‘*emergent view*’ is based on a non-linear representation of management learning. As with the high control approach, the need for development is triggered by the perception of programme

sponsors, however the requirement for development is usually associated with higher-level organisational goals such as learning, problem solving and innovation.

Low control interventions are designed to facilitate the creation of new context-specific knowledge and behaviours. This occurs through personal reflection and the interaction of participants as they engage in collective sense-making both during the programme (Hotho and Dowling, 2010), and through their continued reflection, interaction and knowledge sharing once the intervention concludes.

With the low control approach, knowledgeable experts are commissioned to assist with the creation of a learning environment that encourages co-reflection, the co-creation of organisational specific knowledge, and the development of collaborative behaviours that persist beyond the boundaries of the specific intervention. Outcomes at the organisational level are anticipated to be developmental and impact the organisation's informal structure and capability to learn and innovate over time.

With the low control approach to CMD the objective of the intervention is often to engage the participant in experiential learning, reflection and problem solving that leads to innovation and change (Black and Earnest, 2009; Ladyshevsky, 2007). The approach is learner centric and empowering with many of the decisions about what is to be learnt, how, and when, shared between the tutor who acts as a facilitator of learning or *guide*, and the participants, who take a more central role in the intervention (Sigaloff et al., 2007; Buckley and Monks, 2008).

The assumption that underpins the low control perspective is that knowledge constantly evolves and is dispersed across communities who learn from their actions over time. The approach to learning is *andragogical* and stresses the participant's life experience as an important input to the learning process (Knowles, Holton and Swanson, 1998). The low control approach is consistent with the ontological perspective that predominates in the organisational learning literature that examines the way organisations learn and adapt over time. It draws on theories of social learning (Bandura, 1977, 1986) and experiential approaches to learning and development (Kolb and Kolb, 2005; Long and Jinks, 1982).

Reference	Corporate Context	Intervention	Outcome	Study Purpose
Anderson (2010)	IT Services	High Performing Teams	Team Leadership	Discursive Shift as a measurement of change
Ardts et al. (2010)	Various	Management Development	Individual Career	Factors that make CMD more effective
Berger (1985)	Diesel Engine	Modernise Technology	Collaboration, Improved processes	Improving the effectiveness of MD
Bilhuber et al. (2011)	Financial Services MBF	Cross Business Collaboration	Growth Synergies	How to build social capital with MD
Black & Earnest (2009)	W.K. Kellogg Foundation	Leadership Development	Professionalised Leadership	How to evaluate post programme outcomes
Buckley & Monks (2007)	Edge of Chaos Organisations	HRM Development	Change in Strategic focus	Illustration of alignment of MD with environment
Caligiuri & Trzaskie (2009)	Diversified Chemical Company	Development of Global Leaders	Global Leadership Effectiveness	Effectiveness of MD: high contact/cross cultural
Carden & Callaghan (2007)	Environment/Mgmt Consulting	Talent Management	Role Identity	Impact on organisational identity
Cherniss et al. (2010)	Various	ISO process designed training for EQ	Improvements in EQ	Process designed training as a new approach to MD
Cullens & Waters (2012)	Hays PLC (Consulting)	Development of Org and Brand Strategy	Various Organisational Improvements	MD as a tool for building expertise and knowledge
Gibb (2004)	University	Heads of Department Diversity Training	Inconclusive	Investigate the use of Arts based training
Hordern (2012)	Local Authority Directorate	Dissemination of tacit knowledge	Inconclusive	Horizontal discourse and knowledge creation
Hotho & Dowling (2010)	Public Sector Agencies	EQ, Systems Approach, Innovation	Performance and Conflict	Participative perspective of leadership development
Kamoche (2000)	Transnational Company	Mini MBA	Transmission of culture	Links MD with culture, identify and control
Kawalek (2006)	GW Power Utilities	Organisational Change/blended learning	Problem Solving Skills and Change	Illustration of a reflexive pedagogical approach
Keating et al. (2001)	Hospital Management Group	Develop Systems Problem Solving Skills	Identification of underlying issues	Illustration of a systemic analysis approach to MD
Militello & Benham (2010)	W.K. Kellogg Foundation	Leadership Development	Community Level Outcomes	Q-methodology as a form of evaluation
Seppanen-Jarvela (2005)	Public Sector Professional Org	Management Competency and Commitment	Develop the Community of Practice	Promotion of MD through evaluation
Sigaloff et al. (2007)	Dutch Social Insurance Bank	Top Management Group 'Kitchen Table'	Cooperation and Effectiveness	Illustration of a collective approach to MD
Watkins (2011)	Global Health Care	Leadership of Change	Collaboration, Strategy, Change	Evaluation using Theory of Change Approach

Table 25: Low Control Case Studies. Source: Synthesis of CMD Literature

2.5.2.1. Development Methods

Four primary methods of development were discussed in the literature. These were Teaching, Multi-rater Feedback Questionnaires (360), Action Learning, and Coaching. In many cases the CMD intervention would consist of a blend of methods. Each of the methods identified were employed in both *high control* and *low control* forms of CMD, however, the use and purpose of each method was found to differ. These differences are presented in Table 26.

Methods	High Control Contexts	Low Control Contexts
Teaching	The tutor is there as an instructor and subject matter expert who controls what is learnt by providing instruction to students who are recipients of new knowledge	The tutor facilitates learning by encouraging dialogue and reflection amongst participants who are active in the process of learning
Multi-rater Feedback Questionnaires (360)	The tool describes required behaviours, and provides those who control learning with an opportunity to evaluate change at the individual level	The tool encourages self-awareness, reflection and dialogue amongst practitioners within the community of practice
Action Learning/Problem Solving	The purpose is to ‘simulate’ organisational problem solving using organisational data which provides an opportunity for participants to practice new skills, and sponsors the opportunity to evaluate what has been learnt	The purpose is to engage participants as a resource to solve organisational problems by providing a focus and time for collaborative learning and organisational problem solving
Coaching/Mentoring	The coach/mentor passes on their experience and exercises control over the development agenda	The coach/mentor facilitates learning by encouraging the participant to reflect on their experiences

Table 26: *Methods of CMD. Source: Synthesis of CMD Literature*

2.5.3. Mechanisms

Mechanisms are theoretical links between interventions and outcomes that explain why outcomes occur in specific contexts. As the purpose of this review is to identify how CMD delivers organisational outcomes, the mechanisms of interest explain the interconnection between changes that have taken place at the individual level, and outcomes at the organisational level.

Mechanism	Intervention Outputs
Knowledge: the active use of knowledge and skills in practice	<ul style="list-style-type: none"> • Procedural Knowledge • Declarative Knowledge • Skills • Competencies
Learning: as an adaptive capability	<ul style="list-style-type: none"> • Motivation for Continued Personal Development • Motivation to support the development of others • Meta-Abilities
Social Capital: as an enabler for the exchange of organisational resources	<ul style="list-style-type: none"> • Change in Relationships • Change in Networks • Change in levels of Trust

Table 27: Mechanisms. Source: Synthesis of CMD Literature

Three mechanisms: *Knowledge*, *Learning* and *Social Capital*, were identified from the analysis of the literature (Table 27). The mechanisms emerged from a synthesis of the outputs from the interventions and the author of the papers assumption about the impact these might have in practice.

Knowledge, skills and competencies were the most frequently cited output of interventions within the case study literature with seventy-three percent of the case studies either assuming or providing evidence of the use in practice of what had been learnt. The mechanism that joins what has been learnt in the form of knowledge with outcomes at the organisational level is the active use of knowledge and skills in practice. This is commonly referred to in the literature as ‘training transfer’ or ‘learning transfer’.

Blume et al., (2010) make a distinction between *closed skills* where their use in practice is prescribed as part of the intervention and *open skills* where their use is left to the discretion of the individual. Blume et al.’s, (2010) meta-analysis of the literature concludes with the suggestion that organisational outcomes will be dependent on how knowledge and skills are used in practice.

Twenty-two percent of the case studies referred to changes in either the motivation to learn or the ability to learn as an output of CMD. The development of learning ability was associated with the development of meta-abilities and behaviours that facilitate

continuous learning and growth in accordance with the evolving needs of the organisation. These meta-abilities include competencies such as cognitive skills, self-knowledge, emotional resilience, personal drive, creativity, mental agility, balanced learning habits and skills, self-directed proactivity, critical reflection and a willingness to be open to change (Buckley and Monks, 2008). Changes at the individual level were associated with higher levels of improvisation, innovation and the translation of organisational experiences to support the evolution of strategy and organisational decision-making.

“Leadership development practices become a source of competitive advantage if they are aligned and combined in such a way that they create synergistic effects” (Galli and Müller-Stewens, 2012: P178)

Thirty-three percent of the case studies related to the development of relationships and networks as an outcome of CMD. The development of such relationships is often referred to as ‘social capital’ which can be defined as the ‘*the quality between people*’ that enable the development of synergies and efficiencies through collaboration and the sharing of resources (Galli and Müller-Stewens, 2012).

Bartol and Zhang (2007) identify three organisational outcomes from the development of social capital. The first relates to the effective completion of tasks through the exchange of resources, the second relates to the development of careers by gaining access to mentors and sponsors, and the third relates to personal accomplishments achieved through friendships and personal support networks.

2.5.4. Outcomes

There were four outcomes that were identified from the literature: Changes to the organisation’s operations, changes to the organisation’s culture, changes to the organisation’s structure and changes to the political power of specific groups.

2.5.4.1. Operations

The most frequently cited outcome of CMD was a change in operations, defined as the way the organisation transforms inputs into outputs. Fifty-five percent of the case studies provided evidence of a change in this area.

“Managers were seen as important agents who, based on learning, knowledge and visions, could develop or change rules, programs and relations related to their ongoing situated actions” (Espedal, 2004)

CMD was found to impact operations by changing the transactional capability of managers through the development of their knowledge and skills, which in turn had an impact on productivity. Change was also seen to occur through the development of management’s transformational capability by developing their ability to sense-make and innovate resulting in developmental changes to operations and the implementation of new ways of working.

2.5.4.2. Culture

The term *culture* is used to describe ‘a particular way of life among a people or community’ (Hatch and Cunliffe 2013: p177). This commonly consists of shared beliefs, assumptions, understandings, norms, values and knowledge. Change in culture takes place through organisational learning where ways of behaving diffuse throughout an organisation or community of practice via mimicry, social learning and engagement with organisational routines. Culture change was the second most frequently cited outcome of CMD with forty percent of the case studies providing evidence of changes associated with the organisation’s culture. CMD was found to impact culture by reinforcing and aligning participants with current or desired ways of thinking and behaving, and through the development of new ways of thinking and behaving that diffuse to others within the organisation.

2.5.4.3. Changes within the Organisational Structure

CMD was found to have an impact on an organisation’s formal structure by creating opportunities for participants to advance within the organisation’s hierarchy. This was achieved through the development of extended personal networks that provide personal support and generate opportunities for career progression, and through the development of the requisite knowledge and skills for advancement.

2.5.4.4. Power and Control

Although not a central topic for discussion in the majority of case studies with the exception of Finch-Lees (2005), Boaden (2006), Watkins and Marsick (1993) and Carden and Callaghan (2007), there is evidence that CMD has the potential to alter or reinforce sources of power and control that exist within the organisation by changing the relative power of stakeholder groups (Boaden, 2006; Watkins and Marsick, 1993) and shaping the identity of participants as *loyalists* (Carden and Callahan, 2007) resulting in the formation of coalitions that might work together to lobby for change within the organisation.

2.6. Critique of the Literature

The systematic review included case studies that were often written by the stakeholders of the interventions that were described. In many cases, there exists an implicit assumption that CMD is universally positive for the participants, their practicing communities and the organisations in which they work. There was very little reference to conflict or other negative consequences that might emerge when CMD activates change within the organisation's practice context. This overtly positive bias within the literature may be holding back the development of new insights into the efficacy of CMD at the organisational level. Further insights might be gained through an analysis of outcomes that are either unanticipated or judged to have had a negative impact on the individuals and/or the organisations in which they practice.

The case studies of CMD often assume that the various stakeholders of CMD including senior managers, human capital professionals, participants, tutors and line managers, all prescribe to the same rationale for engaging in CMD and share a similar logic of how it will impact the organisation. This may not always be the case. This issue was not explored within the literature, which often assumes a unitary rather than pluralistic perspective. This may be an interesting avenue for future inquiry.

The CMD literature suffers from a disproportionate focus on short-term, individual level change *within* interventions, rather than on theories of change *from* interventions within the organisation's practice context. The impact of factors that account for

variability in outcomes at the organisational level such as culture, strategy, environment and the impact of various stakeholder groups all require further research.

The authors who describe CMD interventions in the case study literature were found to pay little attention to the participants themselves, particularly with regards to individual differences amongst cohort members and their prior knowledge and experience as an input to the learning process. This is somewhat surprising and may suggest that subconsciously authors continue to view participants as relatively passive in the learning process, in contrast with participative theories of learning such as andragogy and social learning theory.

Finally, it was noted that relatively little information was provided within the literature about tutors and their personal characteristics and behaviours. This may be because practitioner-authors dominate the literature, this limits their ability to objectively assess the impact they have on CMD outcomes. More independent observation of CMD may reveal new insights that the practitioner literature fails to identify.

2.7. Discussion

Two routes to organisational impact were identified from the literature. These are illustrated in Figure 17.

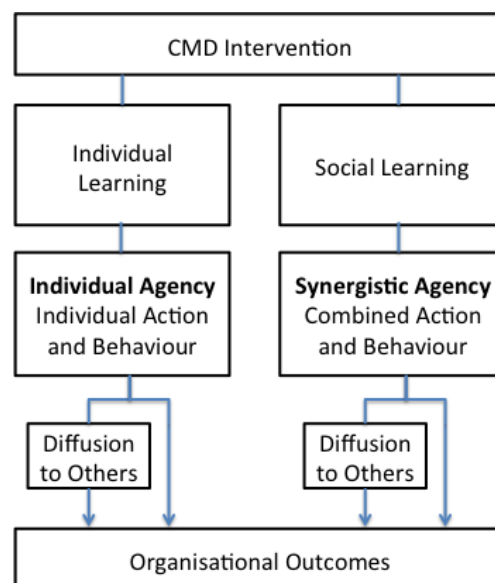


Figure 17: Route to Organisational Outcomes

Individual Agency relates to the impact of a change in actions by the participant as a consequence of learning generated by a CMD intervention.

The change may be to align their behaviour with ways of working prescribed during the intervention; to engage with different priorities for action; or in some cases to actively disengage with the organisation if there is found to be an irreconcilable conflict in identity, priorities, or understanding between the participant and the organisation.

The resulting change in action and behaviour by the participant within the community of practice may impact others who either act in accordance with the change in actions or mimic the new behaviours exhibited by the participant.

Synergistic Agency relates to the collective actions and behaviours of the cohort of participants that occurs from changes in social capital and group learning. The impact of synergistic agency has the potential to diffuse throughout the organisation (Avolio et al., 2010: p636). Synergistic outcomes potentially include:

- **Collaborative behaviours** such as the sharing of resources and knowledge
- **Growth synergies** associated with the combination of complementary products or services to differentiate the organisation's offering (Billhuber Galli and Müller-Stewens, 2012),
- **Distributed involvement** in strategy development and organisational decision making
- **Organisational Learning** through the ongoing exchange and combination of multiple organisational perspectives.

Two types of CMD intervention were identified from the CMD literature. These have been defined earlier as *high control* and *low control* interventions. Table 28 presents the findings related to high control and low control interventions using CIMO logic.

CIMO	Factors	High Control	Low Control/Emergent
Context Organisation	Organisational Environment	Stable	Dynamic
	Community of Practice	Routine	Knowledge Intensive; Project; Entrepreneurial
	Culture/Structure	Bureaucratic	Participative
	Strategy	Highly Defined	Emergent
Context Participants	Role	Junior - Middle Management; Low level of discretionary action	Senior Leadership; High level of discretionary action
	Experience	Low	High
	Characteristics	Receptive	Participative
Learning Intervention	Specified Needs	Procedural Knowledge, Declarative Knowledge, Affective, Skill, Competence	Meta-Cognitive; Meta-Competence; Affective
	Learning Theories	Behavioural, Cognitive,	Active Inquiry, Social Cognitive; Situated Learning, Social Cultural
	Tutors	Focus on control of what is to be learnt	Focus on the facilitation of learning
Organisational Mechanism	Knowledge, Skills, Learning Capability and Social Capital	Management Agency; Strategic Alignment	Leadership Agency; Strategic Learning, Engagement
Outcomes	Learning	Individual Learning	Organisational Learning
	Focus	Transactional Performance	Transformational Change
	Technology	Productivity	Innovation
	Culture	Compliance	Evolution and change
	Formal Structure	Succession	Succession and Influence
	Informal Structure	Unity of sentiment and harmony	Coalitions for change, resource exchange, and support
	Timing	Episodic, Developmental	Developmental, Transformational

Table 28: Two Paradigms of CMD

With high control interventions, the focus is on creating a unity of sentiment and homogeneity of skill by addressing gaps in knowledge, skill or attitude at the individual level. With the low control intervention, the focus is on increasing organisational flexibility and adaptability by creating an environment that is conducive to learning through the development of social capital and the participants' individual and collective sense-making capability.

The modality of the high control approach serves to reinforce the organisation's existing strategy by requiring participants to align their behaviour with the expectations of the sponsors. Efficacy in terms of organisational performance is

therefore dependent upon the quality of the organisation's strategy, the accurate identification of management deficits at the practice level, and the passive acceptance of instruction by participants.

The modality of the low control approach serves to develop the organisation's strategy, culture and ways of operating by empowering participants to learn together on behalf of the organisation. The efficacy of the approach in terms of organisational performance may be dependent upon the capability and experience of the participants, their commitment to act upon insights that arise during the intervention, and the need and appetite for change amongst stakeholder groups that were not directly involved in the CMD intervention. The approach may be most appropriate for participants who have a greater opportunity for discretionary action within their role such as senior managers, or within cultures that already encourage a high level of participation in organisational decision-making.

The two different approaches to CMD depicted by the *low control/high control* dichotomy are often conceptualised in the CMD literature as being from different eras, with the low control approach being described as more contemporary (Buckley and Monks, 2008; Fulmer, 1997; Hotho and Dowling, 2010). The findings from this review suggest that both approaches have merit and potential drawbacks, and that it is the fit of the CMD approach with the organisation's strategy, culture, task and environment that may have the greatest impact on its perceived efficacy, which in many cases is highly subjective and associated with the lens through which the stakeholder observes the intervention and its outcomes.

2.7.1. Proposition of a Model of CMD

The aim of this systematic review is to synthesize what is already known about how CMD delivers outcomes at the organisational level in order to propose a model of CMD that can be used in practice.

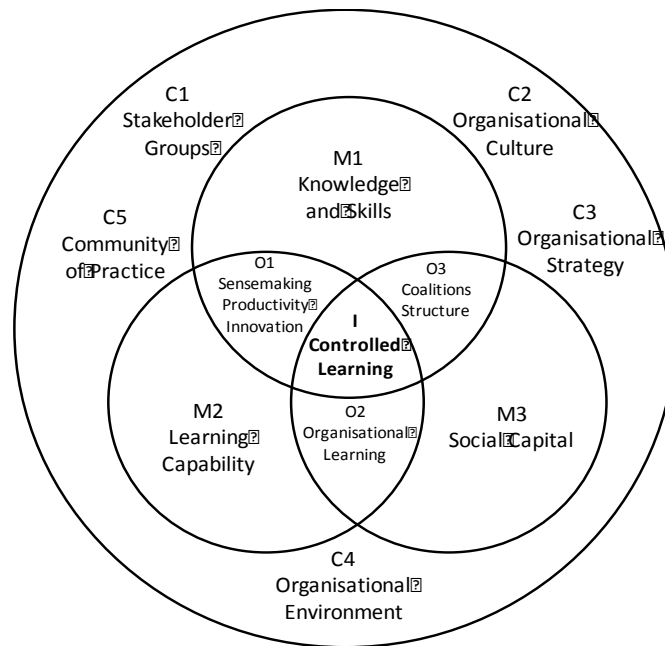


Figure 18: Model of CIMO Factors

Figure 18 provides an overview of the contextual factors, mechanisms and outcomes that were found within the literature. In the centre of the diagram is the CMD intervention which is illustrated as a form of controlled learning either *high control* or *low control*. Learning is controlled through the initial selection of participants, learning design, agenda, and actions of tutors and facilitators.

The outcomes of the intervention link to organisational outcomes via three proposed mechanisms:

- M1: The active use of knowledge and skills in practice
- M2: Learning as an adaptive capability
- M3: Social Capital as an enabler for the exchange of organisational resources

Three categories of organisational outcome were identified within the literature. These potentially link to specific mechanisms as illustrated by the overlapping areas within Figure 17. The outcomes identified are:

- O1: Changes to operations in the form of short-term productivity improvements, and future innovation through continued learning and the application of new knowledge
- O2: Organisational Learning through the development of learning capabilities and the sharing of knowledge through social networks
- O3: Changes to formal and informal organisational structures through the identification and development of talent and the formation of coalitions

The organisational outcomes from the intervention are mediated by five categories of contextual factor:

- C1: Stakeholder groups including senior sponsors, human capital practitioners, the participants and their immediate colleagues within their community of practice
- C2: The organisational culture which includes knowledge that is embedded in existing routines and paradigms of thought
- C3: The organisation's strategy
- C4: The organisational environment and the extent to which it is relatively stable or subject to rapid change
- C5: The community of practice and the extent to which it represents a sub-culture within the organisation, and the extent to which its needs are aligned with the objectives of the development intervention

The potential relationship between the factors is illustrated in Figure 19 as an operational model of how CMD generates organisational outcomes.

The model illustrates the path dependent nature of CMD where outcomes at the organisational level impact organisational contextual factors that potentially impact future learning from investments in CMD. The model differentiates between stocks as organisational resources that are potentially available for use, and the actual use of stocks as mechanisms generating outcomes within the organisational context.

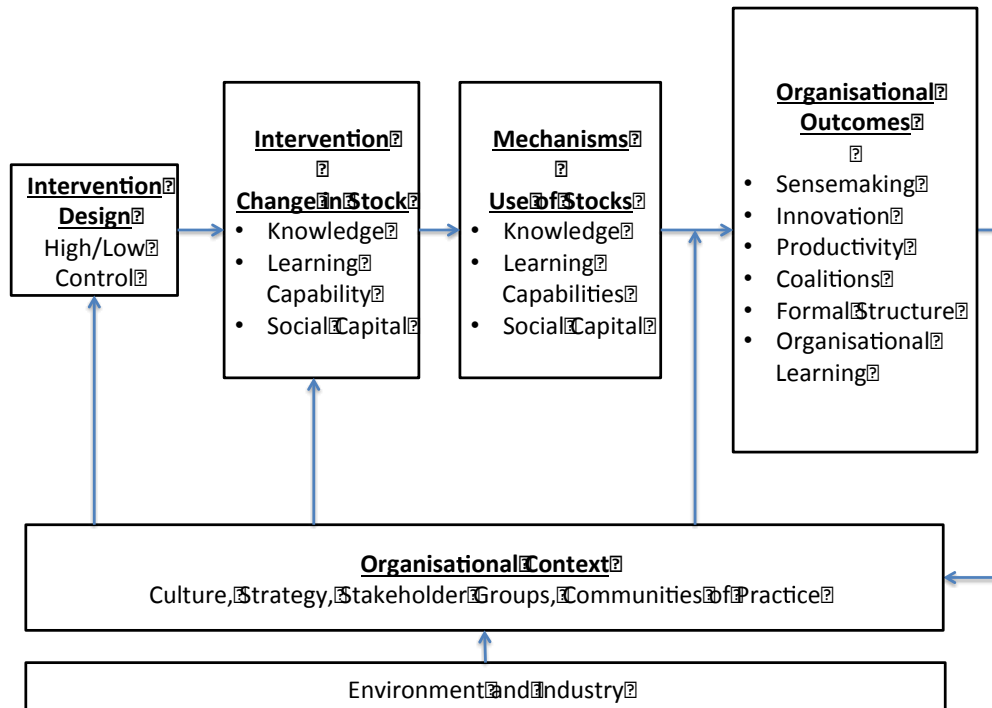


Figure 19: Operational Model of CMD

2.8. Research Limitations

When working with a diverse literature it is impractical to present everything that appears within the literature within one document. There is therefore a significant amount of rich data that is available within the case studies that does not appear in this synthesis. The application of alternative *lenses* during the synthesis highlighted a variety of different outcomes, some of which, although interesting do not appear in this final document as they do not directly align with the research question. Others wishing to synthesise the same literature may interpret the data in a different way and therefore arrive at alternative conclusions.

The data used in this synthesis is predominantly based on the perceptions of stakeholders in single case studies. In many of the studies both the input and output data appear to be gathered at a single point in time. For example, participant perceptions of the importance of senior managers role modeling behaviour is established post intervention at the same time as information relating to the intervention's efficacy. This is considered by some to be a serious failing within the

case study literature with evidence that same-source and same measurement-context (SS/SMC) bias consistently inflates relationships between contextual factors and outcomes (Blume et al., 2010). Although it is not advisable to generalise the outcomes from single source case studies to other settings, and the data within this review may be impacted by SS/SMC bias, it is acceptable to generalise hypotheses from patterns across case studies and their theories as a basis for future research (Blaikie, 2007).

In recognition of the approach taken in this review and its limitations, the outcomes are proposed tentatively as a plausible explanation of CMD impact that requires further validation.

2.9. Next Steps

The literature review revealed very little data related to the unanticipated or potentially negative outcomes of CMD. The next step will be to develop the model further by interviewing practitioners within the researcher's community of practice. It is hoped that the interviews will reveal additional insights into the unanticipated and potentially negative outcomes of CMD, and shed further light on the emerging perspectives that have arisen from this systematic review of the literature.

3. PROJECT TWO: PRACTITIONER INTERVIEWS

3.1. Introduction

Traditionally within the management development literature the question of impact has been addressed through research that aims to prove the link between a given intervention and its outcomes by employing deductive methods related to the positivist ontological perspective. Unsurprisingly, findings from syntheses of the literature (Baldwin and Ford, 1988; Baldwin and Padgett, 1994; Blume et al., 2010) conclude that the outcome of management development interventions will vary according to contextual factors that have an impact on the intervention's efficacy.

Although many authors are somewhat silent about exactly how impact occurs at the organisational level, the systematic review of the literature that preceded this project revealed the common assumption that impact relates to the activation in practice of new knowledge, skills and personal networks that develop during the intervention. It is often assumed that these align the participants' behaviour with the requirements of the organisation.

Although many who write within the management development literature readily recognise the social complexity of the system within which management development intervenes, surprisingly, research methods either focus on the measurement of impact assuming a simple closed system, or alternatively relate observations to the positive performance aspects of a single specific case.

This research builds on previous research into CMD by synthesizing what is known using a realist method that involves the identification of *social mechanisms* and *contextual factors* that account for variations in *intervention outcomes*.

3.1.1. Structure of Project Two

Project Two is divided into eight sections. Following the introduction in Section 3.1, Section 3.2 positions the Project within the wider research process and provides an explanation of the approach taken. In Section 3.3 the methodology is presented in detail. In Section 3.4 the findings from practitioner interviews are presented using CIMO Logic (Pawson, 2006). In Section 3.5 these findings are combined with

findings from P1 in an operational model of CMD. In Section 3.6 the model is used to explain the impact of six accounts of CMD interventions delivered by Cranfield School of Management. In Section 3.7 the findings and their contribution to the literature are discussed. The Project concludes at Section 3.8 with an explanation of the next steps in the research process.

3.2. The Epistemological Perspective

The epistemological approach employed by realists contribute to the development of middle ground theories that are positioned between the universal laws of the positivist perspective and the specific descriptions found in case studies. Realist research builds on the work of positivist researchers as it provides additional insight into the workings of the system.

The realist ontological perspective views the organisation as a semi-open system where there are both event regularities brought about through routines and structures, and unanticipated outcomes as a result of factors such as *social interaction*, *learning*, *power* and *political manoeuvring* (Rees and Gatenby, 2014).

When viewed through the realist lens, CMD intervenes in the system to either reproduce or transform the structures and routines that already exist (Rees and Gatenby, 2014). The aim of research is therefore to identify the *social mechanisms* that provide a plausible explanation for changes to the structures and routines that are attributable to the specific interventions.

There are four core principles that characterise research into social mechanisms (Hedstrom and Swedberg, 1998a, pp.24–25):

- **Action:** Explanations are based on actions which have causes and consequences in the organisation. This means that it is actors not variables that do the acting
- **Precision:** Theories are middle range and therefore are tailored to a limited range of phenomena rather than universal
- **Abstraction:** Effective theorising requires the prompt elimination of irrelevant factors and a sharp focus on the central issue

- **Reduction:** The purpose is to open-up ‘black boxes’ and narrow the gap between inputs and outputs

3.2.1. Position of the Project within the Research Process

The connection between this project and the previous project is illustrated at Figure 20.

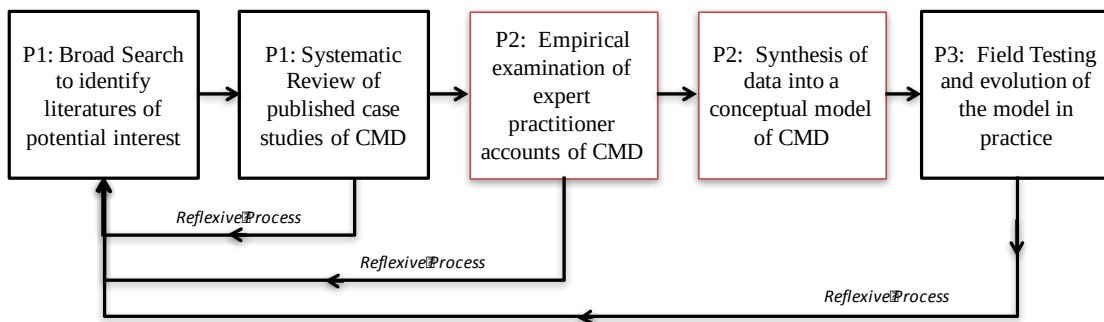


Figure 20: Overview of Research Process

The first stage of the research process involved a broad search of the literature to identify potential theories that might help explain CMD impact at the organisational level.

The second stage of the research involved the systematic review of 995 peer reviewed CMD papers that were screened for quality and relevance. This resulted in the identification of 66 theoretical papers and 49 published case studies of CMD. These 115 papers were analysed and synthesised using a ‘CIMO’ method (Pawson and Tilley, 1997) the aim of which was to identify the social mechanisms and contextual factors that account for variations between interventions and outcomes (see Figure 20).

The synthesis revealed the common assumption amongst the authors that the organisational level impact of CMD is generated by the activation of newly developed individual, group and organisational level knowledge, skills and relationships that strengthened or transformed the existing structures and routines within the organisation.

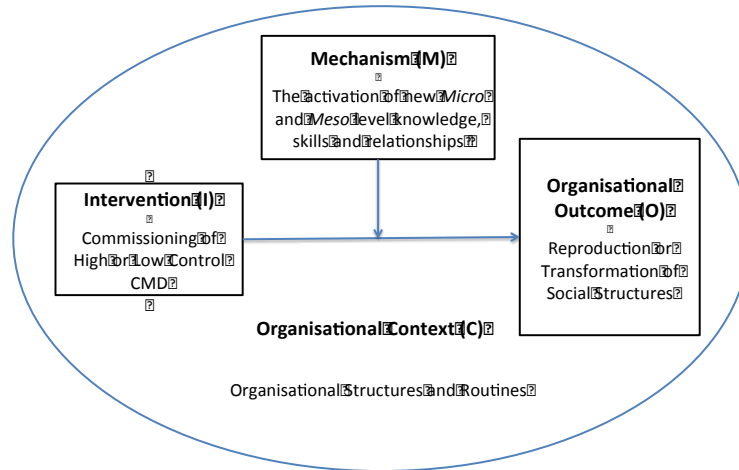


Figure 21: A CIMO Synthesis of the CMD Literature from P1

The purpose of this paper is to build on the outcomes of P1 by analysing expert practitioner accounts of specific CMD interventions delivered by Cranfield School of Management. The findings from which are presented in an operational model of CMD.

3.3. Methodology

A comparative case method approach to theory building (Collier, 1993) has been used in this research to identify both cross-cutting patterns and information about the performance of specific interventions in specific contexts (Kessler and Bach, 2014).

The focal unit of interest is the organisation. In order to explain impact at the organisational level multiple levels of analysis have been used (Dansereau, Yammarino and Kohles, 1999) including observations at the participant, cohort, practice and organisational levels.

As the description of each case is from the perspective of a single source (the Programme Director), there is often an assumed homogeneity in their observations, for example, they often referred to ‘*the participants*’ or ‘*the cohort*’. Whilst this potentially reduces the reliability of their accounts, this has been accepted as the intention is to identify cross cutting patterns from the data rather than proof of impact.

3.3.1. Data Collection

In a recent survey, Cranfield School of Management was ranked as one of the top global providers of Customised Management Development (Source: FT Rankings Survey, 2017). The School's Centre for Customised Executive Development (CCED) delivers approximately 150 programmes to 40 corporate clients each year.

The Programme Directors employed by CCED have visibility of the CMD process from initial diagnosis of needs, through to the design, delivery and evaluation of specific interventions. They therefore possess potentially valuable insights into how organisational impact occurs. Data was collected from the Programme Directors in a series of one to one interviews. The purpose of the interviews was to gain their insights into how CMD works by gathering data about the *context*, *mechanisms* and *outcomes* related to specific interventions delivered by Cranfield School of Management.

The Programme Director interviews were structured using a questionnaire that was developed drawing on the output of the literature review that preceded this paper. An explanation of the rationale for each question is provided at Appendix P.

A table of the interviews conducted is held at Appendix Q. In total eleven interviews were completed. Each interview lasted approximately an hour.

At the beginning of each interview the Programme Director was provided with an explanation of the purpose of the interview and issued with a paper copy of the questionnaire to help focus their thinking. They were then asked to select a client case and explain how the intervention worked and to describe any unanticipated or negative outcomes from the intervention.

All interviews were recorded and notes were taken during the interview. Supplementary questions and summarising techniques were used to develop a more complete picture of the specific interventions described.

3.3.2. Data Analysis

All eleven interviews were completed and transcribed prior to coding to help familiarise the researcher with the data.

Initially, each transcript was coded in Nvivo to identify key themes. These key themes were then checked by re-coding each transcript according to the question, and running queries to group the data together using CIMO logic (Pawson and Tilley, 1997):

- **Context** - Information about the contextual factors that had an impact on the outcomes of the intervention
- **Intervention** - Information about the intervention purpose, structure, methods and duration
- **Mechanisms** - Causal explanations of how the intervention impacted the organisation
- **Outcomes** - The anticipated or observed impact the intervention had on individuals, groups and their organisations

As the purpose of coding was to identify cross cutting patterns between the cases, the transcripts were coded multiple times using different theories. The final coding was selected as it was both a good fit with the data and plausible.

3.3.3. Data Synthesis

Once all interviews had been coded, insights from the interviews were combined with insights from P1 to create a model of how Customised Management Development generates organisational impact.

3.4. Findings

In this section, the results of the analysis of transcripts are presented using CIMO logic.

3.4.1. Context

There were three main contextual factors that were highlighted by the Programme Directors as they provided examples of specific interventions. These were:

- Fit
- Leadership
- Learning Capability

Fit relates to the extent to which the focus of the intervention aligns with aspects of the organisation's wider context such as the strategy, existing practices, trading context, culture and structure. The quotations below provide an illustration of some of the data coded to Fit. The Source letter indicates a specific intervention and respondent (see Appendix Q). Where one respondent provided two examples of interventions the second example is represented by a number 2 after the source letter.

Source A: *“So, what the challenge is, is when the [participants] come back to their regional job roles they are not interfacing, their communities are in a local regional mind set so that can cause a tension, a disappointment that ‘no-one in my region understands’.”*

Source B: *“There is still a way to go because their measures drive people down an individual siloed approach”*

Source E: *“what we were doing was part of their conferences, part of their strategy and conversations, it really was a holistic intervention that touched all of the aspects of that organisation, and grew and changed”*

Source H: *“The model of leadership is that the exec decides, Therefore, even as a leader of a business unit your hands are tied to a point, so it is really hard to say what will happen when [what they learn] rubs up against the culture.”*

Source H: *“As soon as the theory hits the culture then I start to worry, would they ever do that? or would all of that get usurped at the beck and call of the chairman? so it never gets done because development gets relegated to the last thing on the agenda, so its where the theory of really good development hits the reality of the culture”*

Fit was categorised as both an enabling force (one that supports the generation of impact), and a resisting force (one that hinders the generation of impact). The components identified from the Programme Director interviews that were coded to Fit are listed in Table 29.

Category	Components	Enabling Forces	Resisting Forces
Fit	Alignment of the intervention with the organisation's strategy and strategic process	x	
	Alignment of the intervention with operational processes: e.g. PDR, talent, Key Account Management etc.	x	
	Alignment of the intervention with the organisation's existing culture	x	
	Alignment of the intervention with a wider OD need or 'burning platform' for change	x	
	Alignment of the intervention with role related challenges	x	
	Alignment of the intervention with strategic projects	x	
	The availability of opportunities for promotion	x	
	Inconsistency in priorities between the organisation and the operational units		x
	Inconsistency in culture between the organisation and the operational units		x
	Lack of alignment of process' between functions, geographies or hierarchical levels		x

Table 29: Context Components – Fit

Leadership relates to the behaviour of leaders within the organisational context and the extent that the participants believe that specific leaders either support or directly oppose the changes facilitated by the intervention. Leadership was categorised as both an enabling and resisting force. Where leaders were positively engaged with the intervention this was believed to have a positive impact on the engagement of participants. Where individual leaders were either cynical about the intervention or did not behave in accordance with the desired change this was believed to have a negative impact on the intervention. Illustrative quotations from the Programme Director interviews are shown below:

Source B: *“He really expects them to take on personal challenges, that’s also part of the programme, at the end of the programme he will come and round it off and give*

them a chat about his experience or what he is expecting them to do following the programme.”

Source D: *“This fifty are prepared to move and to do things differently, but they are saying, ‘What are the Board prepared to do?’ so it has created a tension which will play out next week, massively”*

Source E: *“He was very clear, he never wavered and took the team with him and his vision for that organisation was entirely interlinked with these behaviours. It really was an enactment of leadership”*

Source E: *“When we are trying to change or anyone is being asked to change you look at the leaders and watch their behaviour and if they don’t change you are not going to.”*

Source E: *“Senior managers were completely and utterly integrated with us, we co-designed it with them, it was really amazing, we constantly had these conversations and discussions with them, we were learning, they were learning”*

Source I: *“The amount of control in the hierarchy was surprising, particularly within the HR function but also within the other functions, the lack of coordination, cooperation and so on between the functions”*

Source E: *“it was particularly difficult between [two of the leaders], and the one who actually ended up leaving the company was game playing all the time, so it was hard for us because although most were ‘well we’re not sure about this but we’ll give it a try’, the other guy made it very difficult, because with all of his chiefdoms he definitely wasn’t supporting the initiative”*

The components identified from the Programme Director interviews coded to Leadership are listed in Table 30.

Category	Components	Enabling Forces	Resisting Forces
Leadership	Leaders as sponsors	x	
	Leaders as mentors	x	
	Leaders as role models	x	
	Leaders as tutors / subject matter experts	x	
	Leaders taking responsibility for the programme and the programme agenda	x	
	Leaders setting expectations for intervention outcomes and/or participant behaviours	x	
	Sponsorship for the intervention at the most senior level	x	
	Leaders not supportive of the programme agenda		x
	Leader behaviour which is not consistent with the programme agenda		x
	Leaders not willing to support the embedding of learning from the intervention e.g. by resisting change or by refusing to empower the participants to implement change		x
	Leaders feeling threatened by changes in behaviour amongst the programme participants		x
	Lack of belief in the organisational strategy that underpins the intervention		x
	Lack of transparency about the strategy or priorities		x
	Lack of opportunities for the participants to engage with decision makers		x
	Organisational politics or leadership power struggles associated with the intervention agenda		x
	Lack of respect or trust between the participants or between the participants and sponsors		x

Table 30: Context Components – Leadership

Learning Capability refers to the extent to which the organisation and its culture are capable or willing to support learning. Learning capabilities were described as both enabling and resisting forces. Illustrative quotations from the Programme Director interviews relating to Learning Capabilities are shown below:

Source D: *“these guys they plan, do, they don’t review; and these guys are the best fire fighters in the world. So, if they can’t see the impact or the relevance of what they are doing then they close off quite quickly. In terms of a learning style, whilst there are reflectors in there, you’ve got a lot of pragmatist-activists, so that is where the risk was”*

Source H: *“Development gets relegated to the last thing on the agenda, so its where the theory of really good development hits the reality of the culture”*

Source I: *“It was amazing the reluctance at the board level to support each other, and learn from each other, and talk about what was going on”*

Learning Capabilities were reported to be both enabling and resisting forces. The components identified from the Programme Director interviews coded to Learning Capability are listed in Table 31.

Category	Components	Enabling Forces	Resisting Forces
Learning Capability	Line Managers' sponsorship of participants onto the programme	x	
	Line Managers' involvement in the learning process	x	
	The requirement to feedback progress to senior leaders	x	
	Resources to support the embedding of learning e.g. coaches, learning diaries etc.	x	
	Leadership commitment to formally embed learning back into the organisation's systems and processes	x	
	Organisational communication of intervention outcomes	x	
	Inability to take in knowledge which conflicts with the dominant logic of the organisation		x
	Lack of learning capability amongst the leadership population (e.g. defensive, non-reflective practices)		x
	Low prioritisation for learning within the organisation's culture		x
	Lack of process for embedding learning back into the organisation		x
	Short term utilitarian approach to learning		x
	Lack of clarity about the intervention's objectives		x
	An organisational context that is not accustomed to change		x
	Lack of resources to capitalise on programme outcomes		x
	Bureaucracy or process led behaviours		x
	Line Manager's lack of capability or willingness to support learning		x
	The participants' learning capability		x
	Participant guilt about being away from the business		x
	Lack of power to implement change by programme participants		x
	Intolerance of diverse behaviours		x

Table 31: Context Components – Learning Capability

3.4.2. Intervention

There were three primary categories of intervention described by the Programme Directors, these are listed in Table 32.

Intervention Type	Description
High Potential Development	The bringing together of individuals, to develop the capabilities and social networks they will need in future roles
Practice Development	The bringing together of individuals from within a community of practice to develop their collective capability to implement improvements to the current systems, processes and practices
Organisational Development	The bringing together of individuals from across the organisation to develop their capability to implement organisational level change

Table 32: Intervention Components

On occasions, the focus of the intervention was seen to change during the delivery phase. This was due to senior leadership inputs highlighting different priorities to those that had been set during the design of the intervention; the emergence of new priorities generated by participant discussion and sense-making activities during the intervention; and due to changes within the organisation's wider context leading to a redesign part way through the delivery phase.

3.4.3. Mechanisms

Six generative mechanisms were identified from the explanations that were provided by the Programme Directors of how CMD generated organisational level outcomes. These were:

- Dialogue
- Sense-making
- Alignment
- Engagement
- Skill Development
- Socialisation

Dialogue relates to the intervention's capacity to facilitate new topics of conversation and to bring new people into discussions across the organisation. Illustrative quotations provided by the Programme Directors are shown below.

Source A: *“We develop a more confident and knowledgeable group of leaders who can enter into the business dialogue to enable decision making and the development and actualisation of strategy.”*

Source B: *“They engaged others in conversation whether it be customers, others in the supply chain, or their own internal colleagues etc. they did communicate a lot. That’s where the programme got its traction and momentum from.”*

Source C: *“There would be an Exec Sponsor in attendance and he or she would hear what everybody was saying and then engage in that discussion and ask some probing questions”*

Source E: *“What we noticed at the conferences was that people felt they could talk and ask questions anywhere. They would raise quite difficult questions because of the way we had been working with people to have confidence and trust that their voice could be heard.”*

Source G: *“It’s a combination of the mind-shift and that people gain a lot of confidence, and they start to communicate much more widely and connect and therefore influence and be heard”*

The components coded to Dialogue are listed in Table 33.

Category	Components
Dialogue	Conversations with non-participants on return to the workplace
	Developing confidence that their voices will be heard
	Engagement of the participants in debate
	Action Learning Groups
	Presentation of learning
	Opportunities to generate discussion with senior managers
	Develop the ability to ask different types of question
	Develop the capability to have conversations that go against the grain
	Develop the confidence to enter into dialogue
	Develop the capability to listen at different levels
	Continued participant dialogue post intervention
	Develop the capability to have much broader conversations

Table 33: Mechanism Components –Dialogue

Sense-making relates to the intervention’s capacity to help the participants make sense of the organisation, its wider context, and their roles within it. Illustrative quotations and the components coded to sense-making are shown below.

Source C: *“They presented their key leadership challenges and people would question them, not to get answers but to come to a better understanding of the issues”*

Source D: *“They go in with a watching brief not as a consultant or problem solver, but just to absorb ‘what’s going on here? what would I do?’ and therefore ‘what does that mean for my practice?’ it allows them to understand another part of the business and what value they create, and it allows the person being observed to reflect upon ‘what do I do in terms of adding value on a day to day basis?’”*

Source G: *“I think that they walk out, we have proven, with a completely different mindset in how they view their role and what the organisation needs from them, and that comes from being able to think differently, and also just looking at it from a different angle rather than a linear process driven angle.”*

Source G2: *“They have the opportunity to consider things, step off the hamster wheel so to speak, and to share their experiences that are very different, and to understand their role”*

The components identified from the Programme Director interviews coded to Sense-Making are listed in Table 34.

Category	Components
Sense-making	Exploration of different businesses, markets, roles and competitor products
	Understanding how the organisation works as a whole
	Understand differences across the organisation
	Experience, reflection and co-reflection
	Questioning to deepen understanding
	Developing an appreciation of the importance of reflection
	Group problem solving
	Working together on the business during the intervention

Table 34: Mechanism Components – Sense Making

Alignment relates to the intervention's capacity to align the participants and their capabilities with the organisation and its objectives. Illustrative quotations from the Programme Director interviews are shown below.

Source A: *“The purpose of the programme is to professionalize the organisation, they are very good at some things, but it's about consistency and creating a more professional organisation, they have been very successful but in a more parochial way, they need to become more global really”*

Source G: *“The projects are directly linked to the strategic objectives of the commercial council members”*

Source G: *“adding more of a collaborative spirit across functions, you know rather than the adversarial, particularly between the procurement legal and business development functions, to actually sit as the glue and manage that collective process”*

Source I: *“It was about lifting your eyes above whatever function you were in and understanding the business as a whole, and manage alignment to make sure what you are doing in your function fits with what the organisation is trying to do”*

The components identified from the Programme Director interviews coded to Alignment are listed in Table 35.

Category	Components
Alignment	Projects that provide a horizontal connection across the functions
	Projects that provide a vertical connection with the strategy
	The development of synergies between functions
	Alignment between functions and the organisation
	The development new procedures that become embedded throughout the organisation
	The development of a shared understanding
	The development of collaborative behaviours
	The development of virtual teams across the globe
	The identification and alignment of participants with succession plans

Table 35: Mechanism Components - Alignment

Engagement relates to the intervention's capacity to motivate and empower participants to act on behalf of the organisation and its objectives. Illustrative quotations from the Programme Director interviews are shown below.

Source D: *"These are the people that translate corporate strategy into business unit strategy and then create the atmosphere for people to deliver against that, so they are in that boundary spanning layer, they have to translate and create the environment and I think they were not good at both. The translation, probably not given enough space to do that or the understanding of how to do it, and then having the leadership characteristics that then corralled and bought their people with them. I don't think there was any appreciation that they were accountable for it there was lots of finger pointing upwards "if only they...", but they have come around to the realisation if they don't do it no one will."*

Source D: *"They have taken ownership for driving and delivering the strategy"*

Source F: *"The Board's aspiration is for them to feel more comfortable and confident, not looking to the board for answers all the time but going to them with solutions and to take a more active role in the organisational strategy, buy into it"*

Source I: *"To give them confidence to say look you can do this, so although they had this engineering confidence, they had been beaten up for years for not earning money, so that confidence, step out of what you are doing, step out of managing those processes and have a go at this leadership"*

Source I: *"The second level down started banging the door of the level above them saying: 'what are we doing about this and this?'"*

The components identified from the Programme Director interviews coded to Engagement are listed in Table 36.

Category	Components
Engagement	Having the opportunity to look up and out
	Developing new ideas for use within the organisation
	The engagement of participants in strategic projects
	The engagement of non-participating employees in the participants' projects
	The development of confidence and self-efficacy
	Increased loyalty
	Engaging individuals and functions with the organisation's objectives
	Changes in participant agency
	Linking the learning process with strategic planning
	The engagement of senior managers with participants
	Changes in the psychological contract

Table 36: Mechanism Components – Engagement

Skills Development relates to the intervention's capacity to improve the participant's performance of routine tasks. Illustrative quotations coded to skills development are shown below.

Source A: *“A more confident and knowledgeable group of leaders who can enter into the business dialogue to enable decision making and the development and actualisation of strategy.”*

Source B: *“what we have built in this time is a bit more commercial acumen”*

Source G: *“The commercial function is fairing much better when some of the delegates get involved in what they call the bid reviews.”*

Source G2: *“it was an up-skilling piece around this layer of managers or leaders”*

Source I: *“Acquaint them with some aspects of management that they may not have experienced up until that point, it can be about finance, supply chain...”*

The components identified from the Programme Director interviews coded to Skills Development are listed in Table 37.

Category	Components
Skills Development	Up-skilling participants so that they can take on new responsibilities
	The development of consistent leadership capabilities
	Improve the capability to have much broader conversations
	Development of strategic capabilities

Table 37: Mechanism Components – Skills Development

Socialisation relates to the intervention’s capacity to familiarise participants with the expected behaviours of specific communities and develop new collaborative relationships and networks across the organisation. Illustrative quotations and the components coded to socialisation are shown below.

Source C: *“It is also used to network these people because they have delegates, typically a max of 30 each year, from all their geographic territories and across all of their functions within the division”*

Source G: *“it is less adversarial internally; more energy is spent getting to a good outcome for the customer”*

Source G2: *“They collaborate across franchises on the projects and find out what the different franchises do and also what the different people from different functions, what they do”*

Source H: *“They have brought people onto the programme deliberately from different countries, functions... They develop a network which is incredibly useful... They feel more confident that they have people to go to internally in their network, and they know who to go to, typically they might be transferred, a UK person at some point would go to India, the fact that they already have got people they know is a huge help.”*

The components identified from the Programme Director interviews coded to Socialisation are listed in Table 38.

Category	Components
Socialisation	Collaboration with peers from across the organisation
	The development of networks across the organisation
	The development of virtual teams across the globe
	The development of collaborative behaviours
	The development of peer relationships
	The projects necessitate that they connect across the organisation
	The development of stakeholder maps and plans to extend relationships

Table 38: Mechanism Components – Socialisation

3.4.4. Outcomes

The outcomes of CMD were coded according to intervention type. Intervention type was based on the description of the purpose of the intervention provided by the programme director. It was noted that the programme directors commonly used different terms to describe the same type of intervention. For example, the terms ‘talent’ and ‘high potential’ were often used interchangeably:

- High Potential Development
- Organisations Development
- Practice Development

The results below are based on an analysis of the response to questions about intended, observed and unanticipated outcomes at the participant, community of practice and organisational levels.

3.4.4.1. High Potential Development Outcomes

The most common outcome for high potential development interventions was participant transition across roles, divisions or territories. Other outcomes included changes in employee retention levels, changes to social capital, changes to practices within current roles and organisational learning from the participants’ project work.

In many cases the programme directors’ knowledge of outcomes was due to their continued involvement with the client organisation over many years. In some cases, their knowledge was as a consequence of a formal evaluation of the programme. As the purpose of the research was to identify cross cutting patterns that appeared within their stories, no distinction has been made between the potential validity of the Programme Directors’ knowledge of outcomes.

In two of the cases high potential development was seen to have a negative impact on the availability of talent for promotion, one due to the failure of the organisation to provide opportunities for advancement resulting in the participant taking up an alternative position outside the company, and the second due to the participant deciding that in hindsight he would prefer not to take on the demands of a more senior leadership role.

Illustrative quotations and a table containing components relating to the outcome of High Potential Development interventions are shown below:

Source B: *“it also enables the senior managers particularly [the CEO] to get to know a lot more people in the business. He knows many of them, but when they are in different parts like [...] for example, he might not have such a good view of them. I've never got the impression that it's evaluating people it's more about understanding the resource they have in the business”*

Source C: *“It is seen as a way of identifying and preparing some high potential employees, to get them ready for or prepared to consider the next step”*

Source F: *‘their hope is to feed the pipeline of talent’*

Source G: *“They have a higher level of bench strength really in the function, and they are beginning to track where people are going and quite a high percentage have been promoted, a couple of people twice, and also a very high percentage are taking on wider roles when there is an opportunity to step up and contribute more cross functionally.”*

The components identified from the Programme Director interviews coded to High Potential Development Outcomes are listed in Table 39.

Category	Components
Participant Transition	Increased talent pool
	Visibility of talent pool capabilities
	Identification of specific individuals
	Promotion of individuals
	Broadening of individual roles
	Movement of talent across divisions
Social Capital	Personal support networks across functions, territories and divisions
Practice Development	Changes to operational practices due to participant projects
	Changes to operational practice in the participant's current role
Organisational Learning	The identification of new opportunities aligned with the organisation's strategy
	Sharing new thinking with the Board

Table 39: Outcome Components – High Potential Development

3.4.4.2. Practice Development Outcomes

The most common outcome from Practice Development Interventions was changes to operational and leadership practices. In many cases the generation of organisational level impact was connected by the Programme Directors to the completion of group projects. Not all group projects resulted in change however, as in some cases a lack of investment or resources meant that the outcomes progressed no further than the presentation of ideas.

In some cases, change at the participant level was believed to have had a negative impact on practice. This occurred where new insights were rejected by those within the practice community who had not directly taken part in the intervention. Illustrative quotations relating to the outcome of Practice Development Interventions are shown below:

Source A: *“A more confident and knowledgeable group of leaders who can enter into the business dialogue to enable decision making and the development and actualisation of strategy.”*

Source A: *“When the [participants] come back to their regional job roles they are not interfacing, their communities are in a local regional mind-set, so that can cause a tension, a disappointment that no-one in my region understands”*

Source B: “[Sponsors] really see that they can use the opportunity to send 25 people to Cranfield for 8 days and get them to work in cross business groups to come up with ideas that they will take forward.”

Source G: “The commercial function is fairing much better when some of the delegates get involved in what they call the bid reviews.”

The components identified from the Programme Director interviews coded to Practice Development Outcomes are listed in Table 40.

Category	Components
Capabilities	The transfer of new skills into the practice community
	The embedding of new tools and frameworks into practice
	Improvement in decision making and the actualisation of strategy
	Increased visibility and/or confidence in the capabilities of the participants
Project Outcomes	The development of new ideas and insight
	The development of new practices and ways of working
Social Capital	Increased levels of inter and intra group collaboration
	The use of new networks and relationships
Engagement	Increases in confidence and self-efficacy
	Tension and disappointment that ideas are not implemented in practice

Table 40: Outcome Components – Practice Development

3.4.4.3. Organisational Development Outcomes

The most common outcome from Organisational Development was perceived changes in the organisation’s ability to implement its strategy. This was believed to be due to changes in the alignment of participant actions with the strategic agenda, and from their engagement in strategic conversations.

Illustrative quotations from the Programme Director interviews relating to the outcome of Organisational Development Interventions are shown below:

Source D: “[Change was witnessed] in terms of behavioural difference, differences in processes and systems and the way people were working”

Source E: “[The CEO] says without it they would not have survived [the changes in their environment] and it is absolutely essential to the way they work now and the way they are successful is that they have this culture of collaborative learning and shared leadership.”

The components identified from the Programme Director interviews coded to Organisational Development Outcomes are listed in Table 41.

<u>Category</u>	<u>Components</u>
Culture Change	Change in the collective behaviour of leaders
	Changes in organisational practices
	Changes in beliefs and values
Employee Engagement	Changes in employee satisfaction
	Changes in levels of involvement across populations
Organisational Learning	Changes in organisational knowledge
	Change in strategic sense-making
Human Capital Planning	Change in knowledge about the company’s human capital
	Changes to the way leaders are measured and evaluated

Table 41: Outcome Components – Organisational Development

Once coded, the insights from the Programme Director interviews were synthesized with insights from the systematic review (P1) to form an operational model of impact. The model is presented within the next section.

3.5. Data Synthesis

In this section, insights from P2 are combined with insights from P1 in an operational model of CMD impact.

3.5.1. An Operational Model of CMD

The model at Figure 23 presents CMD as a change process. The model draws inspiration from Pawson’s concept of an impact chain (2013, p.20).

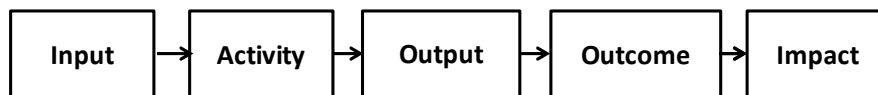


Figure 22: Pawson's Impact Chain

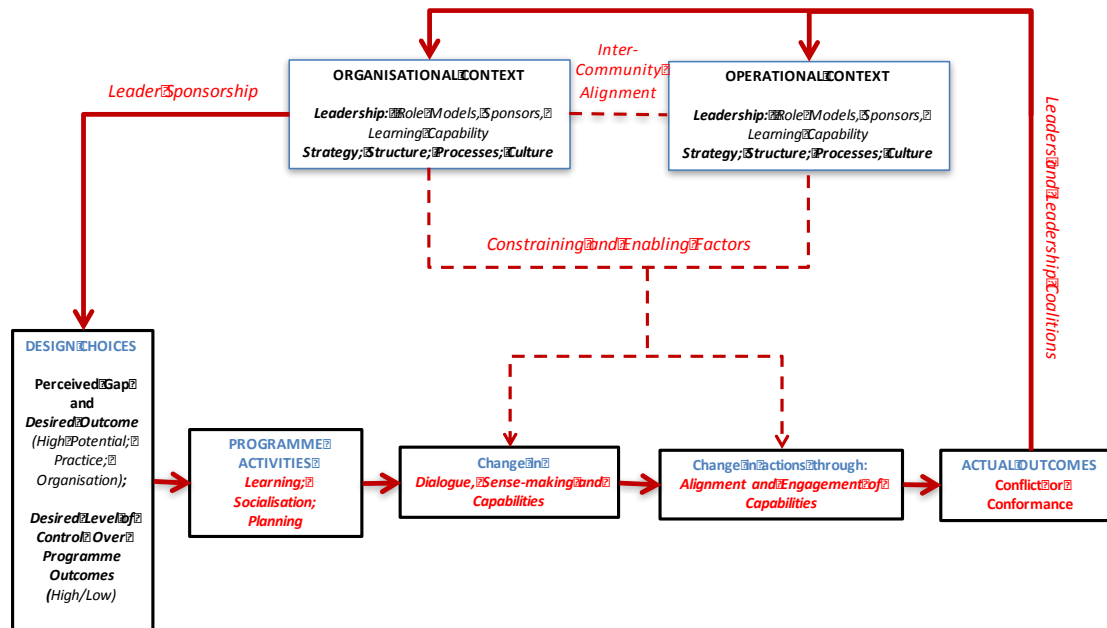


Figure 23: CMD Model of Organisational Level Impact

The two blue boxes at the top of the diagram represent potentially separate contexts within the organisation. The *organisational context* is associated with activities related to governance of the organisation. The *operational context* is associated with activities related to the organisation's operational functioning. The dotted line between the two contexts represents the level of alignment between the governance and operational elements of the organisation including cultural and strategic alignment.

The process flow of the diagram is anti-clockwise and starts with a sponsor commissioning a development intervention in accordance with a perceived development requirement. The development requirement is categorised between three primary development needs (Table 42):

- **High Potential:** The development of individuals in preparation for their future promotion to a new role
- **Practice Development:** The development of capabilities, systems and processes associated with a specific function or community of leaders
- **Organisational Development:** The alignment and engagement of leadership capabilities, processes and practices across the organisation, usually in accordance with the implementation of a new strategy or in response to a perceived organisational threat

The sponsor's requirement can be further divided between a High Control and Low Control development design.

- **High Control:** Aims to align participants with a prescribed way of working within the organisation by developing specific capabilities
- **Low Control:** Aims to engage participants with exploratory learning on behalf of the organisation, or about the organisation and the requirements of their role

	High Potential	Practice Development	Organisational Development
High Control	Develop participants' competence to perform specific roles within a specific cultural context	Develop the participants' capability to perform specific routines within a specific cultural context	Develop the participant's capability to implement change in accordance with a prescribed strategy
Low Control	Facilitate the exploration of different career paths within the organisation	Facilitate problem setting and solving at the practice level	Facilitate the implementation of organisational change through problem setting and solving at the organisational level

Table 42: Categorisation of Interventions

The purpose of the intervention will inform the selection of activities and how the intervention generates change. Six potential mechanisms explain change at the individual and group level.

- **Sense-making:** the intervention's capacity to help participants make sense of the organisation, its context and their role within it
- **Dialogue:** the intervention's capacity to facilitate new topics of conversation and to bring new people into discussions across the organisation
- **Skills Development:** the intervention's capacity to generate new skills at the individual level
- **Socialisation:** the intervention's capacity to familiarise participants with the social norms of a practice community, and develop new relationships and networks across the organisation
- **Alignment:** the intervention's capacity to align the participants and their capabilities with the organisation and its objectives
- **Engagement:** the intervention's capacity to motivate and empower participants to act on behalf of the organisation and its objectives

Appendix H aligns the six mechanisms with the constructs identified from the systematic review during P1.

The performance of the mechanisms will be dependent on constraining and enabling factors within the organisation's context which will dictate whether the intervention results in individual and group level learning that conforms or conflicts with existing organisational level routines.

Where learning conflicts with the existing organisational routines the participant group may form a coalition for change within the organisation. If successful, this may lead to organisational level change. In some contexts, this may not be possible as the participants do not have the capacity, resources or capabilities to implement change at either the operational or organisational levels.

In contexts where the participants are unable to implement changes in accordance with their learning there may be negative organisational outcomes such as the reduced engagement of the participant population.

3.6. Intervention Examples

The following examples of interventions are presented through the lens of the model. The examples are summaries of the interventions described by the Programme Directors, with the exception of B which is a description of an intervention directed by the researcher.

	High Potential	Practice Development	Organisational Development
Specific Outcomes <i>High Control</i>	A	C	E
Emergent Outcomes <i>Low Control</i>	B	D	F

Table 43: Table of Illustrative cases

3.6.1. High Potential Interventions

The following two examples describe interventions that involve the development of High Potential employees.

3.6.1.1. Illustration A: High Control High Potential

The organisation is a family owned manufacturer of heavy duty industrial vehicles. The son of the original founder is the Chairman and his son in turn is also employed in the business as a senior leader and member of the Executive Team.

The organisation operates through a collectivist culture (Swierstra and Rip, 2007) where loyalty to the organisation and family are of fundamental importance. Although other leaders take an active role in the business, their authority is limited by the requirement to align with the direction set by the family members.

The senior sponsor of the programme is the HR Director. Leaders throughout the organisation have an extremely active role in the programme's on-going design and delivery including the hosting of modules within their regions.

The purpose of the intervention is to transform excellent technical managers from across the globe into great leaders who are capable of leading business units and functioning within the constraints of the extremely strong culture. The programme is one of a suite of programmes that develop leadership capability from first line managers, all the way through to board level appointments. Participation in the programme is prestigious and there is an expectation that the participants will be promoted during or shortly after taking part.

It is the responsibility of the organisation's existing senior leadership team to ensure that the programme aligns with the specific needs of the organisation and its culture. Throughout the programme the participants visit the various manufacturing locations and target markets. Each visit is hosted by the local executive team, who fully engage with the participants, lead inputs, and arrange networking dinners that help the participants make sense of the organisation and its ways of operating. The organisation's Chief Executive attends the final module of the programme, which is positioned as a *rite of passage*. During the final module, the participants are expected to present what they have learnt to the Chief Executive.

The programme prepares the participants for leadership roles within the specific context of the organisation and its culture. It socialises people with the existing leadership who transmit the requirements from one generation of leaders to the next. The objective is to generate loyalty to the brand and a commitment by individuals to lead in a way that is consistent with the expectations of the family members, wherever in the world they are sent.

3.6.1.2. Illustration B: Low Control High Potential

The organisation is an employee owned engineering and management consultancy. Traditionally 'talent' within the organisation had been defined as those who had the potential to become future leaders.

In 2006, the organisation's ambitious growth plans were challenged by its ability to recruit and retain professionally qualified staff in an increasingly competitive talent market. The Group Managing Director decided to broaden the definition of talent to include all professional staff. The objective was to increase employee engagement and retention.

The intervention was designed to align the personal skills and interests of professionally qualified employees with career opportunities across the organisation's professional divisions. The Group Managing Director opened each programme with the statement, *'use the programme to discover who you are and what you enjoy, then find someone to pay you to do it'*.

Initially the approach met with some resistance from within the operational silos of the organisation, where concerns were raised that succession plans would be disrupted as employees would be 'poached' by other business units. A second intervention was therefore designed to persuade the managers of the benefits of the new talent approach and to develop the skills they required to support the participants as 'internal coaches'.

During the first eighteen months of the talent intervention, the participants developed self-insight, extended their personal networks, and explored different career opportunities across the organisation. Skills development focused on developing the participants' ability to plan their own career, develop their support network across the organisation, and engage in work based learning. During the second eighteen months, the participants pursued an individual career development plan that aligned with their personal preferences and vision. Each participant was supported by an 'internal coach' selected from the line managers' development intervention.

An evaluation of the programme revealed employee retention rates were significantly higher for the participant population than for non-participating populations.

In most cases, despite the line managers' initial concerns, participants mainly opted to pursue careers within their existing business unit. In one case a participant convinced the organisation to invest in the creation of a new service that aligned with his personal vision.

3.6.1.3. High Potential Case Comparison

Illustration A is categorised as High Control as the intention is to change the participants' behaviour so that it aligns with the specific requirements of the target role. The leaders who

support the programme do so to socialise the participants with the culture and the specific expectations of the organisation.

Illustration B is categorised as Low Control as the intention is to engage the participants' interest in career opportunities that fit with their personal interest and requirements. It is therefore the participants rather than the organisation that is in control of the outcomes of the intervention. The leaders who support the programme do so to familiarise the participants with the breadth of opportunities that exist within the organisation and where appropriate connect the participants with others who might help them fulfil their personal ambitions.

3.6.2. Practice Development Interventions

The following two illustrations describe Practice Development interventions.

3.6.2.1. Illustration C: High Control Practice Development

The organisation is a manufacturer of luxury cars. In 2008, the organisation was purchased by a company with a very 'hands off' management style compared to the previous parent who had handled strategy and set production targets for the Management Board. For the first time the organisation's leadership had to think strategically and manage change for themselves.

The existing leadership culture within the organisation was very traditional, top down, command and control, with an engineering mind-set. Decisions about the business and its people were typically pushed up the management chain and decisions about product design were taken for aesthetic rather than commercial reasons. Problems were typically covered up rather than solved and deadlines and performance targets were routinely missed.

The decision to invest in CMD was taken by the new parent who wished to develop the organisation's leadership capability so that the existing leaders could step up and take responsibility for the strategic direction of the business. The commissioning of the intervention was delegated to the organisation's Management Board, who took a very hands-off approach to the design and delivery of the programme, relying heavily on the expertise of the selected provider.

The intervention was commissioned for the Top 500 leaders excluding the Board of Directors. Typically, the participants were plant managers and functional heads, steeped in the organisation's culture and traditions, demoralized by the constant change in ownership, but still very confident in the quality of their product and their engineering capability.

The intervention focused on developing business and leadership skills, including finance, strategy and leadership. Story-telling techniques were used to help the participants envision two potential futures for the organisation, one failing and one succeeding. The participants also visited target geographical markets to develop their understanding of customers and competitors.

The participants, encouraged by the opportunity that had been provided by the new owners, responded positively to the intervention. As their confidence and capability grew they started to question ways of working within the organisation and put pressure on the Management Board to implement changes.

The Board had little involvement with the development of their subordinates and chose to participate in only one intervention. This intervention revealed a Management Board that was very much divided and unwilling to work together, and closed to feedback.

As pressure for change increased from below, one member of the Board took the decision to terminate the programme as he argued that it was not aligned with the organisation's culture and was therefore creating disruption.

3.6.2.2. Illustration D: Low Control Practice Development

The organisation was a relatively young multi-national insurance company that was going through rapid growth. There had recently been changes in reporting lines at the very top of the business to cope with growth, however, the board was undecided whether the organisation should operate as a global or multi-national business.

The Chief Executive commissioned the management development intervention to develop the capability of middle managers and ensure that they had the skills and capabilities necessary to keep pace with future growth. The intervention was designed to develop self-insight, insight into others, and insight into the business.

Each cohort consisted of a mix of participants from all global locations and functions. During the programme the participants visited different geographic locations to see how the operational model differed at a local level. The participants engaged in strategic dialogue with the board, and engaged in strategic project work to help develop their collaboration, virtual team-working and strategy implementation skills.

The intervention resulted in a more confident and knowledgeable group of managers who demonstrated that when provided with an opportunity to work out of role they could behave differently. They demonstrated a commitment to learning and the potential to take on more responsibility as the organisation grew. In return, the board developed their confidence in the capability of the participants and their readiness to meet the organisation's future needs.

Although the participants developed their ability to think more globally and learn from their colleagues, they did not have the opportunity to collaborate and take a global perspective within the existing multi-national structure. This created a tension between the participants and their colleagues from within the region who did not understand or have an interest in what the participants had learnt. This limited the positive impact of the intervention and led to disruption at the local level.

The case highlights the potential conflict between an organisation's longer term strategic agenda and the potentially shorter-term performance objectives within the practice community, a tension that will be borne directly by the participants if not supported by those who initiated the change at the individual level.

3.6.2.3. Practice Development Case Comparison

Illustrations C and D have been categorised as Practice Development as they both focus on the development of skills, behaviours and routines to be performed by an existing community of practicing leaders.

Illustration C is categorised as High Control as development was focused on the participants' ability to perform new specific tasks associated with the change in ownership. The expectation of the sponsors was that the participants would learn skills that would allow them to contribute to strategic and production planning activities.

Illustration D is categorised as Low Control as development was focused on developing the participants' ability to learn and keep pace with change, rather than perform specific tasks associated with their role.

In both cases the interventions developed conflict within the organisation due to the generation of change amongst the participant population that did not align with the routines practiced within the existing operational community. Both cases highlight the risk of creating misalignment within the organisation by generating change within a partial community of leaders.

3.6.3. Organisational Development Interventions

The following two illustrations describe organisational development interventions.

3.6.3.1. Illustration E: High Control Organisational Development

Today the organisation is one of the largest and most successful social housing associations in the South East of England. In 2008, the organisation's culture was patriarchal with top down leadership exercising a command and control style.

The financial recession of 2007 and changes in government funding had a serious impact on the business model requiring the organisation to diversify and generate new commercial sources of funding through the development and sale of private housing.

The new Chief Executive commissioned the intervention to help shift the leadership and organisational culture to one of *collaborative learning* and *shared leadership*.

The CMD intervention was for all levels of leadership from first line team leaders to the Executive Board. The design of the intervention was emergent, where through working together and assessing the on-going impact of each cohort, tutors and sponsors learnt together and made regular changes to improve the performance of the intervention.

Each cohort consisted of a diagonal cross section of leaders, who would initially attend a three-day workshop to develop capabilities such as active listening, skilful questioning and mindfulness. On completion of the workshop the participants would work in learning sets on projects that were linked to the organisation's strategy. Each learning set received support from a senior organisational sponsor and Cranfield coach.

As successive cohorts completed the programme, organisational learning was captured in a new set of organisational values and a competency framework that described the behaviours that were consistent with the new culture. Group learning was also shared throughout the company by posters and books that captured the learning journey and outputs from each learning set. The programme ran for eight years in total, and included every leader within the organisation.

During the intervention's first year challenges occurred due to conflict amongst the organisation's Board members. One Board member was particularly resistant to the strategy and actively worked against it, forming alliances with others who also opposed it.

Despite opposition, the new desired culture was constantly reinforced through the behaviour of the Chief Executive and his allies who role modelled the new behaviours and actively implemented new systems and processes that aligned with the required change.

Over time behaviours changed as people at all levels within the organisation developed the trust that they could enter into dialogue with the Board members and senior leaders, ask difficult questions, and contribute to the future of the organisation.

The organisation has survived and grown in a challenging financial environment by renewing its strategy and changing its culture to one of learning and shared leadership. With a newfound financial stability, the organisation has managed to acquire many of its competitors who were unable to change to meet the new dynamics of the social housing market.

3.6.3.2. Illustration F: Low Control Organisational Development

The organisation is a contractor to the major oil operators, essentially a sub-sea plumber with responsibility for the infrastructure around oilrigs. The organisation has an ‘expert’ culture that is underpinned by an engineering mind-set that is very process driven and linear, rather than agile and capable of dealing with ambiguity.

Due to a reduction in oil prices and a resultant slow-down in investment in the offshore industry, the organisation experienced a dramatic drop in its order book. This led to a major restructuring with changes to reporting lines, which in turn had an impact on levels of trust between employees and the Senior Leadership Team, which was highlighted in the employee survey.

The Chief Executive commissioned CMD to drive change amongst the Top 50 Senior Leaders with responsibility for translating the corporate strategy into business unit strategy. The intervention was designed to improve leadership performance by helping the heads of function step up and take responsibility for the leadership agenda and work collectively across the globe.

The intervention was designed around the concept of ‘*The Reflective Practitioner*’ with the intention of creating transformational change at the individual level by slowing them down and giving them space to be present and reflective. During the intervention, the participants were required to examine leadership through different lenses and practice new skills associated with collaborative dialogue, listening at four levels, personal reflection and co-reflection.

The style of the intervention was very different to previous interventions sponsored by the company as it required the participants to develop their own shared understanding of the leadership requirement in the organisation, rather than directly communicated requirements identified by the sponsors.

The intervention has helped the participants form a close personal bond and change their view of what being a leader means in terms of setting the climate and atmosphere, spanning boundaries, seeing the bigger picture and taking a systemic view of how they collectively fit together.

The participants go on the transitional journey together, sharing their experiences and developing the trust required for personal disclosure. Towards the end of the intervention the participants work collectively on a ‘wicked problem’ that requires leadership rather than management skills.

Change has been witnessed at both the individual and group level. The participants have been described as ‘*being more inquisitive and reflective*’, and the quality of conversations has changed. There is a commonality across the group and they appear to be more energised and engaged with the organisation’s strategy.

The leadership approach promoted by the intervention conflicts with the organisation’s existing method of operation, which is more linear and process driven. The behaviours prioritised by the intervention also conflict with the leadership behaviours demonstrated by some of the Executive Committee. This has created a tension between the Executive Committee and their direct reports who complain that they have been asked to step into the leadership space and own it, however, they are still subject to micro-management by the Executive Committee members whose behaviour has not changed.

3.6.3.3. Organisational Development Comparison

Although the learning style of illustration E is explorative, the capability requirement and desired behavioural change were specifically defined by the Chief Executive in accordance

with the organisation's strategy. The case is therefore categorised as 'High Control Organisational Development'.

Illustration F is categorised as 'Low Control Organisational Development' as the participants themselves identified the leadership routines and behaviours that were most suited to their specific context.

The cases illustrate the potential development of conflict between leaders, particularly where interventions are linked to the organisation's strategic agenda.

With illustration E, the commitment of the Chief Executive to the specific changes generated by the programme resulted in organisational wide change. Although not all leaders supported the change agenda, the conflict was addressed directly by the Chief Executive rather than the participants themselves. This was believed to have a positive impact on the participants' engagement.

With illustration F, the Chief Executive sponsored the intervention, however, the changes generated by the intervention were owned by the participants. The conflict that emerged between the participants' change in behaviour and existing organisational routines was not addressed by the Chief Executive. This was believed to have a negative impact on the participants' engagement.

3.7. Discussion

There are two major outcomes from this research. The first relates to the identification of six inter-related mechanisms that explain organisational level change. The second relates to the proposal of a model that explains the nature and extent of organisational level impact.

The re-categorisation of CMD according to the desired change has the potential to provide focus for the design of interventions and guidance to those who are involved in the delivery.

In the case of High Potential Development, the focus for dialogue and sense making is on professional roles and career paths. The senior managers who support the intervention are

there to support participant learning and to communicate organisational requirements both through dialogue and by role modelling desired behaviours. High Potential development also supports human capital planning by providing intervention sponsors with an opportunity to assess the capability of individuals and groups against organisational requirements.

In the case of Practice Development, the focus for dialogue and sense making is on the organisation's operations. Senior managers who support the intervention are there to communicate the requirements of specific functions and layers of leadership, again through dialogue and role modelling the desired behaviours. They also have an additional role of assisting project groups bring about change within their practice community by sponsoring projects and supporting the ratification of ideas through the organisation's hierarchy. Without senior management support, learning may not progress beyond the presentation of ideas at a capstone event.

In the case of Organisational Development, the CMD intervention is aligned with other change processes within the organisation. The focus for dialogue and sense making is on the organisation, its strategy, culture and structure. The senior managers who sponsor and support the intervention are there to lead change and learn with the participants as new knowledge emerges through dialogue and sense making activities.

It was evident from the Programme Director interviews that the behaviours and actions of senior management had significant impact on the intervention and whether change occurred through learning and change at the individual, practice or organisational levels. In some cases, interventions that were originally commissioned as High Potential Development, transitioned to become Practice Development or Organisational Development Interventions. This was often due to the focus for dialogue and the actions of senior managers who supported the intervention.

Although the transitioning of interventions appears to increase the perceived value of CMD, it also poses a risk as the participants may gain access to decision makers in the absence of other stakeholders from within their practice community. This may result in conflict, the formation of disaffected coalitions, and resentment from non-participants.

By creating a clear distinction between the three types of intervention the provider and organisation can reach consensus about the type of change that the programme should deliver. This allows for the early identification of impact measures and the communication of roles and expectations to all stakeholders who have a part to play in the success of the intervention. It can also help with the selection of participants and the formation of cohorts that include the relevant stakeholders in dialogue and sense-making activities. This reduces the risk of conflict arising within the organisation's operational context.

The prototype model of impact that has emerged from this research has the potential to inform both the practice of CMD and future research into organisational level impact.

The common logic of the current CMD literature revealed during P1 was found to focus primarily on how change is generated at the individual level. The prototype model proposed in this paper links individual level change with change at the group and organisational levels.

The practical validity of the model will be assessed during the next and final stage of this research which will involve field testing the model in practice at Cranfield School of Management.

3.7.1. Contribution to the Literature

This paper represents an early attempt to *open up the black box* that links CMD with outcomes at the organisational level through the proposition of a theory of explanation. The theory has been developed through the synthesis of findings from a systematic review of the literature, with specific accounts of CMD provided by Programme Directors at Cranfield School of Management.

The CMD literature traditionally accounts for impact through a linear process of individual learning followed by transfer to the practice context. The perspective often assumes that the participants learn in a context that is separate to the culture and politics of the organisation, only returning to the organisation's context when an attempt is made to transfer learning to practice.

The output of this research represents a subtle but important change in perspective that focuses on the interplay between the intervention and context *prior to, during and after* the intervention concludes.

The model of CMD proposed in this paper narrows the gap between CMD interventions and organisational level outcomes. In doing so it helps to bridge the gap between those that seek to ‘prove’ the efficacy of CMD through the identification of universal laws using positivist methods, and those that focus on the particular, by providing detailed accounts of specific interventions within specific contexts.

This research has resulted in the identification of organisational level mechanisms beyond the individual level mechanisms evident within the CMD case study literature. Organisational level mechanisms focus on the systemic impact of CMD. They illustrate how potentially as one organisational group (the participants) change their configuration and engagement, this has an impact at the interface between the participant group and other groups within the organisational context. The outcome of which can have both a positive and negative impact on organisational performance outcomes.

3.7.2. Research Limitations

The development of models requires an aggregation of the detail that is available within a data set. When aggregating data, we leave behind specific data that the researcher believes to be less relevant. In this sense the proposition of a model is a distortion of the reality it is intending to describe (Hedstrom and Swedberg, 1998a).

The output of this research is based on a synthesis of the accounts of expert practitioners who draw their observations from patterns of behaviour that they have witnessed across interventions they have directed within specific organisational contexts. The accounts they give homogenise the unit of analysis from specific individuals to ‘*participants*’, from specific groups to ‘*cohorts*’, and from specific practice communities to ‘*organisations*’. There is therefore an aggregation in the data they provide that distorts the reality of the events they intend to describe. Due to the nature of this distortion, the value of this research cannot be in

the reliability of the specific descriptions, but in the utility of the model that emerges from the patterns in the aggregated data. This will be tested during the final stage of this research.

3.8. Next Steps

The next step in this research process is to field test the prototype model in practice within the Centre for Customised Executive Development at Canfield School of Management.

4. PROJECT THREE: FIELD TESTING

4.1. Introduction

This is the third project in a series of projects that seeks to develop a practical explanation of how Customised Management Development (CMD) generates organisational outcomes, including changes in the performance of the existing organisational system and transformational changes to the organisational system.

The project is the final stage in a *Design Research* process (Pascal, Thomas and Romme, 2013) where the pragmatic validity of a prototype model, that had previously been developed through empirical research, was *field tested* with clients, faculty and CMD Programme Directors at Cranfield School of Management.

4.1.1. Structure of Project Three

Project Three is divided into seven sections. Following the introduction in Section 4.1, Section 4.2 positions the Project within the wider research process and provides an explanation of the approach taken. In Section 4.3 the Operational Model of CMD that was field tested through this research is introduced. In Section 4.4 an overview of field testing is presented. In Section 4.5 an updated Operational Model of CMD is described in detail. In Section 4.6 the practitioner artefacts that were developed from the model are introduced. Finally, the Project concludes at Section 4.7 with a positioning of the project's contribution to both the literature and practice.

4.2. Position of the Project within the Research Process

The design research process that informs this study is represented in Figure 24. The boxes represent the key activities in the research process, the findings from which are captured as discrete research projects (P1, P2 and P3). The arrows represent the process of reflection and synthesis that occurred between each research project where the researcher returned to the literature and earlier findings to identify new connections.

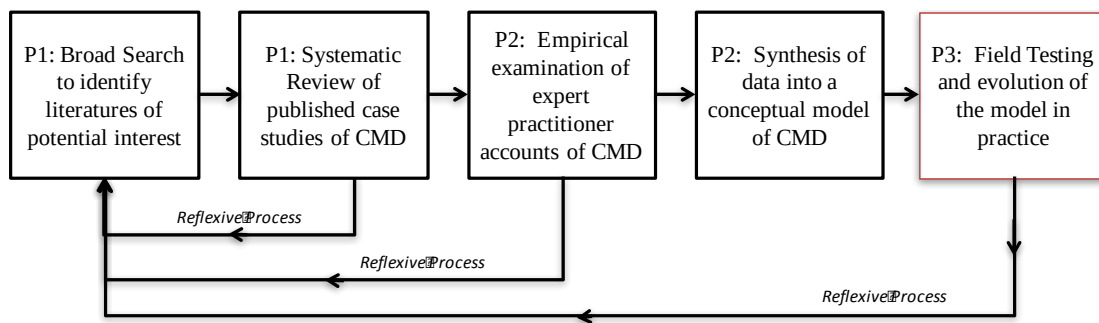


Figure 24: The Research Process

This retroductive process (Blaikie, 2007), which sits at the very heart of a design research method, has two primary benefits. Firstly, it develops a deeper level of insight brought about through noticing additional or alternative explanations that may not have been considered when immersed in the individual projects, and secondly it maintains the link between theoretical perspectives and empirical practice based observations.

4.3. The Operational Model

The *Operational Model of CMD Impact* (Figure 25) was developed from a synthesis of insights that were gathered from a systematic review of the CMD literature during P1 and from interviews with Programme Directors at Cranfield School of Management during P2.

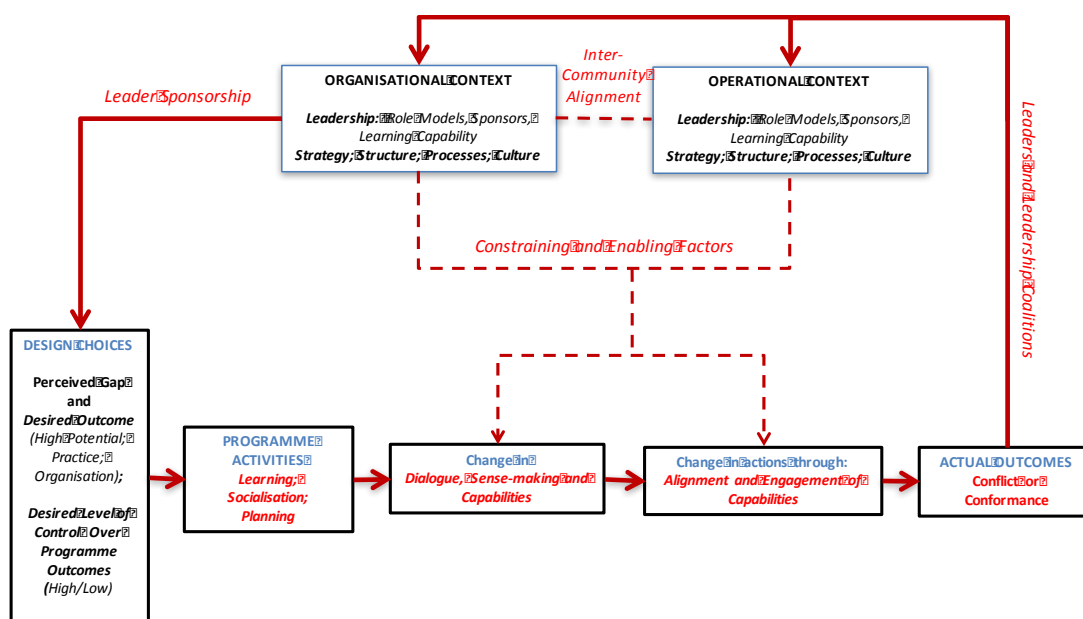


Figure 25: P2 Output – Operational Model of CMD Impact

The model consists of *action formation mechanisms* (Hedstrom and Swedberg, 1998b) that were identified during the P2 interviews.

- **Sense-making:** the intervention's capacity to help participants make sense of the organisation, its context and their role within it
- **Dialogue:** the intervention's capacity to facilitate new topics of conversation and to bring new people into discussions across the organisation
- **Skills Development:** the intervention's capacity to generate new skills at the individual level
- **Socialisation:** the intervention's capacity to familiarise participants with the social norms of a practice community, and develop new relationships and networks across the organisation
- **Alignment:** the intervention's capacity to align the participants and their capabilities with the organisation and its objectives
- **Engagement:** the intervention's capacity to motivate and empower participants to act on behalf of the organisation and its objectives

The action formation mechanisms are micro level mechanisms that explain how the participants assimilate the impact of the CMD intervention. The model suggests that change at the participant level may not necessarily have positive consequences at the organisational level. This could be in part due to constraining factors that exist within the organisation's wider context.

4.4. Overview of Field Testing

The practical validity of the prototype model was assessed over a six-month period through field testing with clients, Programme Directors and faculty associated with the Centre for Customised Executive Development at Cranfield School of Management (CCED). A field diary recorded where and how the model was tested in practice and what was learnt (see Appendix S).

The first stage of field testing involved the formal introduction of the prototype model to the eleven Programme Directors within CCED through a series of one to one interviews.

4.4.1. Programme Director Interviews

The interviews consisted of three distinct phases. During the first phase the Programme Director was asked to explain how organisational impact occurs from CMD and what factors account for variations in outcome. Once the Programme Director had provided their own explanation of how impact occurs, the researcher revealed the model and provided an explanation of its various components. At the end of the explanation the Programme Director was asked to recommend improvements to the model and identify how it might be used in practice within CCED.

The interviews with the Programme Directors were transcribed and analysed using Nvivo. Specific quotations from the interviews are presented at Appendix I as *evidence of practical validity*. Further insight into the constraining and enabling forces that influenced the efficacy of CMD interventions were captured as a list of *Barriers and Enablers* and are presented at Appendix T.

The Programme Directors' initial suggestions for how insight from the research might be used in practice fell into three categories:

- To assist with programme design
- To assist with stakeholder engagement
- To assist with the sales and marketing of customised programmes

The most frequently suggested use of the model was to develop CCED's methodology for the design of CMD interventions, including:

- To identify barriers and enablers that might have an impact on the intervention's efficacy
- To provide a structure for knowledge sharing and innovation across the community of Programme Directors
- To manage the lifecycle of specific interventions

The Programme Director interviews revealed that the prototype model broadened discussions about organisational impact but did not provide recommendations for improving the impact of interventions. It was also noted that the model itself was not immediately accessible to the Programme Directors without significant explanation by the researcher.

Insight from the interviews informed changes to the model and the development of additional knowledge artefacts that provided guidance of *what to do* and *what to avoid* within specific contexts. The decision was also taken to utilise practitioner rather than academic language for future versions of the model and knowledge artefacts to ensure they were accessible by the practitioner community.

4.4.2. Field Testing with Clients

An updated version of the operational model and the list of barriers and enablers were used to inform a discussion with a client during the commissioning phase of a new programme. Although the discussion resulted in pre-emptive actions being taken to manage impact, further meetings with the client revealed that when faced with the revised model and list of barriers and enablers she experienced anxiety about the challenges of investing in CMD. Similarly, feedback was received from a second client source that the model demonstrated an in-depth knowledge of CMD but generated discussions that opened-up rather than narrowed down options for design.

4.4.3. The Development of Knowledge Artefacts

In response to the feedback received during field testing, additional diagrams were developed (Appendix A). The various diagrams were designed to focus on specific elements of the CMD process, therefore facilitating different conversations with practitioners including Programme Directors, Clients and Faculty (see Figure 26).

The diagrams consist of three categories of transformational mechanism that were identified through a process of *inference to the best explanation* by fitting the data gathered during P1, P2 and P3 with theories from the literature.

A good fit was found with Winter's (2003) categorisation of Organisational Capabilities. To make the categorisation more accessible to practitioners Winter's terminology *Zero level*, *Level One* and *Level Two* Capabilities were replaced with the terms *Operational Capabilities* (Zero Level Capabilities), *Change Capabilities* (Level One Capabilities) and *Learning Capabilities* (Level Two Capabilities).

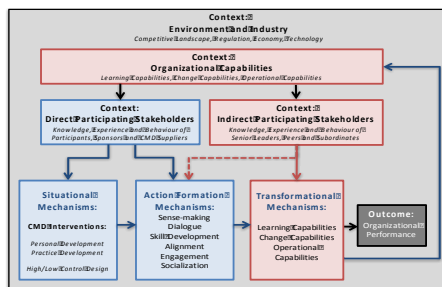


Figure Six: Explains How CMD generates impact and highlights the importance of context. The model is used to generate discussion with Intervention Designers about how their designs might work within the context of the organisation

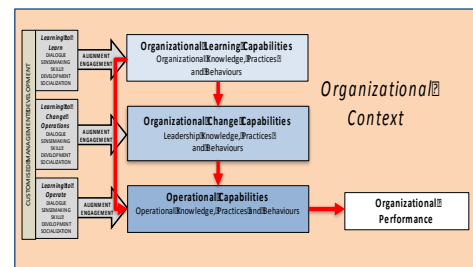


Figure Nine: Explains the link between CMD, Organisational Capabilities and Performance. The model bridges between Figure Six and the creation of Design propositions.

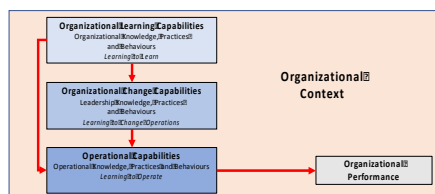


Figure Ten: Explains the Link between Organisational Capabilities and Performance. The model is a simplified version of Figure Nine for use with clients to aid discussions related to the impact. Of CMD on organisational Performance



Figure Eleven: Facilitates discussion with clients about the desired organisational impact and how this will be generated within the CMD Design

Figure 26: Evolution and Uses of CMD Model

The relationship between the three levels of capability and organisational performance as a CMD outcome drew on insight from Vera et al.'s (2011) integrative framework of an organisation's learning system (Figure 27).

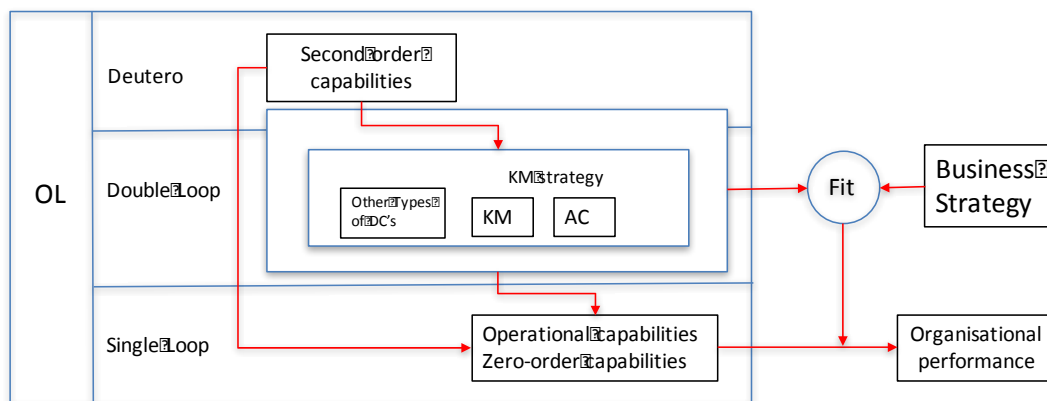


Figure 27: Vera et al. (2011) Integrative framework of an organisation's learning system

This was identified as a good fit, as firstly it differentiates between three different types of learning (Argyris, 1999) and therefore provides a more nuanced perspective of learning that the *high control/low control* dichotomy:

- **Single Loop Learning** – improves the performance of existing routines
- **Double Loop Learning** - changes the routines based on a new conceptualisation of requirements
- **Deutero Learning** – improves the organisation's ability to learn

Secondly, the framework proposes a relationship between organisational level capabilities and organisational performance, thus offering a plausible explanation of the link between CMD and performance through the impact CMD has on organisational capabilities.

4.4.4. Final Stages of Field Testing

New versions of the operational model were introduced to the Programme Directors and faculty at Cranfield.

During one to one meetings the Programme Directors were asked to align their existing programme portfolios with the different capability categories (Appendix U).

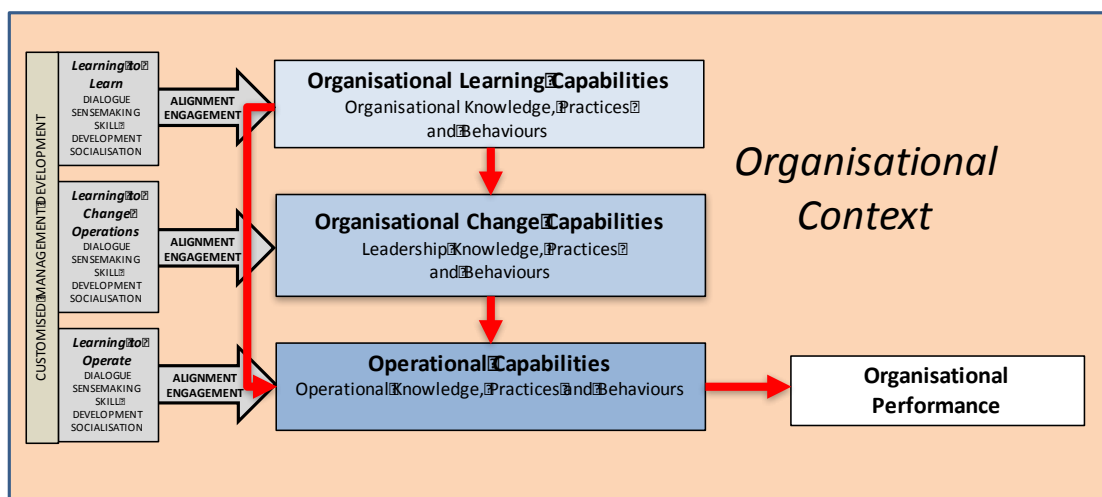


Figure 28: CMD Organisational Level Outcomes

It was noted that the Programme Directors required little support with the categorisation once introduced to the model at Figure 28 and provided with the categorisation matrix at Table 44.

Participant Context		Organisational Outcome Focus		
Transitioning Competence Development	In Post-Practice Development	Operational Capabilities	Change Capabilities	Learning Capabilities
C-1 to C	C			
C-2 to C-1	C-1			
C-3 to C-2	C-2			
C-4 to C-3	C-3			
?	Other			

Table 44: Portfolio Categorisation Matrix

Once a good fit between the capability categories and programmes was established, a set of design propositions were developed (Appendices B to E) drawing on both the insights that had emerged from P1, P2 and P3, and from a review of CCED programme artefacts such as competence frameworks, programme brochures and other programme correspondence that described the development requirements of participant populations within specific organisational contexts.

The knowledge artefacts were field tested by the researcher with three different clients to help build understanding and consensus about their context and requirements.

In one case the client changed their view about the purpose of the programme having been introduced to the diagrams at Appendix A. In another case the diagrams helped the client identify a need to change their requirement during the commissioning of a programme due to a change in their organisational context. In the third case a programme design was changed in response to a last-minute change in the participant population.

In all three cases the knowledge artefacts facilitated a rapid redesign and explanation of how the intervention mapped to the specific nuances of their context.

4.5. Introduction to the Operational Model of CMD

A primary contribution of this research is the model at Figure 29. The Model explains how CMD generates organisational level impact. The model suggests that individual and group changes become embedded within the organisation through the performance of organisational routines, described as ‘capabilities’, that are causally linked with organisational performance.

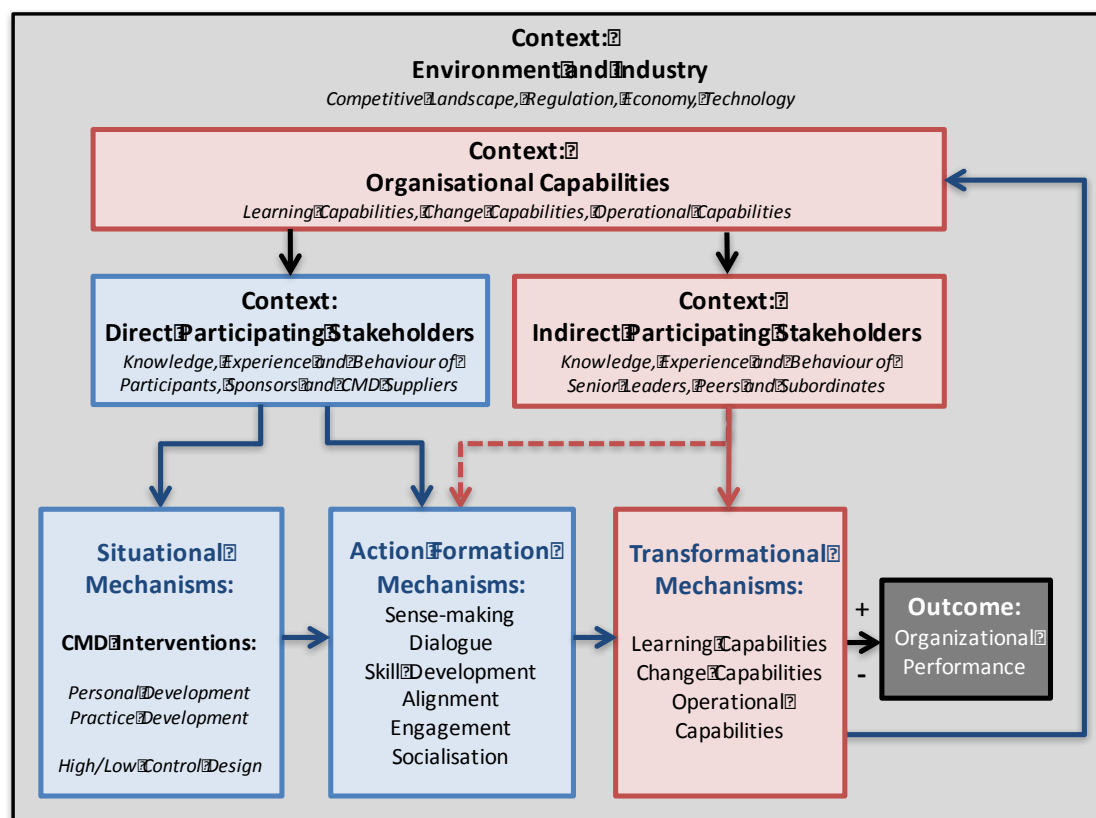


Figure 29: How CMD Generates Organisational Impact

The model depicts CMD as a process. Thus, it should be interpreted as fluid rather than static, taking place within an organisational context that is continually reconfigured by learning and action that occurs through the performance of routines beyond the boundaries of the CMD intervention.

4.5.1. A Typology of Mechanisms

The classification of mechanisms within the model is based on a typology of social mechanisms (Figure 30) suggested by Hedstrom and Swedberg (1998b). The purpose of the typology is to provide an explanation of organisational level change by:

“showing how macro states at one point in time influence the behaviour of actors, and how these actions generate new macro states at a later time” (Hedstrom and Swedberg, 1998b, p.21).

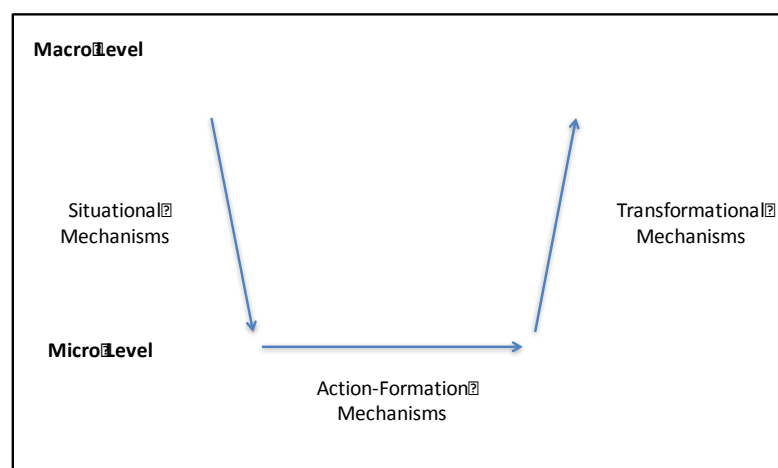


Figure 30: A typology of social mechanisms. Source Hedstrom and Swedberg (1988, p22)

Situational Mechanisms explain how organisational level events impact the individual, for example CMD may impact the individual’s personal development.

Action Formation Mechanisms explain how the participants assimilate the impact of the event, for example through interactions with senior leaders, participants’ may broaden their understanding of the organisation and their role within it.

Transformational Mechanisms explain how the actions of those impacted by the event generate organisational level outcomes through their actions and interactions, for example the participants' may behave more collaboratively when returning to their normal workplace.

4.5.2. Situational Mechanisms

The model (Figure 29) differentiates between two different types of Situational Mechanism *Personal Development* and *Practice Development*:

Personal Development: Focuses on the collective development of individual participants with the aim of changing their personal capability to perform specific organisational tasks.

Practice Development: Focuses on the organisation's specific context, systems and processes with the aim of developing collective routines (Carroll, Levy and Richmond, 2008; Day, 2001; Denyer and Turnbull James, 2015).

With interventions that focus on *personal development*, organisational capabilities are changed through the cumulative agency of the individual participants. With development that focuses on *practice development*, organisational capabilities are changed through the implementation of new routines and processes due to learning by the direct participants during the CMD intervention.

There are two different styles of CMD intervention that were identified in P1. The first can be defined as *high control* interventions. High control CMD is more prescriptive in nature where what is to be learnt and how it is to be used in practice is defined by an expert tutor. Learning in *low control* CMD interventions is more emergent in nature where the tutor acts as a learning facilitator or guide and what is learnt is a product of the combined experiences of the participant group.

4.5.3. Action Formation Mechanisms

The six action formation mechanisms in the model were identified during P2 and explain how change occurs at the individual and group level during the CMD intervention. An alignment of constructs from P1 with the six Action Formation Mechanisms is shown at Appendix H. The six mechanisms are not presented as an exhaustive list as it is highly likely that others exist.

Sense-Making: CMD interventions provide participants with an opportunity to step back from their day to day activities and reflect on their actions and the actions of others. Reflective activities often use theoretical lenses and frameworks that are introduced by tutors. The aim of sense-making activities is to stimulate variation and generate new ideas of how to tackle work-based problems. Group sense-making activities involve a social interpretation process that helps to reduce disparity between the individual cognitive maps held by the participants (Vera, et al., 2011). This allows the group to reach a shared understanding of organisational problems.

Dialogue: Participant interactions generated by CMD interventions promote the synthesis of individual level knowledge to the group level (Hordern, 2012). Through the articulation of individual experiences, ideas become explicit and lessons learnt can be shared across community boundaries. The participants may also develop a common language and schemas that allow them to share their experiences more readily beyond the boundaries of the intervention.

Skill Development: CMD may provide participants with an opportunity to develop new skills and techniques associated with their role and responsibilities. Learning may be due to the guidance of tutors or from engaging with colleagues and mimicking their behaviour. Mimicry facilitates the implicit sharing of tacit knowledge through action whilst the participants engage in CMD activities (Minzberg, et al., 1998).

Alignment: CMD provides the organisation with an opportunity to align the behaviours, skills and actions of participants with specific organisational artefacts such as competence

frameworks and strategic plans, or with the specific agenda of individual sponsoring stakeholders who attend the intervention. Alignment may occur through action planning, the development of social awareness and a shared identity, or through the development of a more nuanced understanding of the organisation's requirement.

Engagement: CMD may change the participants' motivation to act in new ways. Changes in engagement may be due to affective change including changes in commitment and self-efficacy that increase personal initiative (Garvin, 1993), or as a consequence of project work or action planning during the CMD intervention.

Socialisation: The socialisation of participants within a CMD context may generate new bonds and networks that facilitate future co-operation beyond the intervention. The CMD context may also provide an opportunity for participants to become familiar with the social norms and etiquette of specific organisational groups which may help to break down organisational silos, and potentially facilitate the participant's future entry into a new community of practice.

Within any specific intervention there may be some, or all six of the action formation mechanisms happening, however their impact may differ depending on the design of the intervention. There is also likely to be interaction effects between the mechanisms, this however is beyond the scope of the present study

4.5.4. Transformational Mechanisms

The activation of individual and group level learning within the organisational context may be through the performance of organisational routines often referred to as organisational capabilities (Cepeda and Vera, 2007; Vera, et al., 2011; Winter, 2003). These routines will either reinforce the learning from CMD or render it impractical within the current context.

The benefit of linking CMD with capabilities is that it encourages us to look beyond the episodic time-bound changes of CMD to see how learning outputs continue to be reconfigured through action beyond the temporal boundary of the CMD intervention.

Winter (2003) identifies three levels of organisational capability that represent processes and routines that are rooted in knowledge. Capabilities constantly change due to learning that occurs every time a routine is performed (Cepeda and Vera, 2007).

Operational Capabilities are associated with single loop organisational learning which maintains business as usual through the correction of errors that are detected within current routines (Argyris, 1999). Learning at this level is associated with the day-to-day basic operations of the organisation with the intention of improving the organisation's capability to perform routine activities such as sales, manufacturing or research and development.

Operational Capabilities are enhanced by CMD through the systemic alignment and engagement of participants with problem setting and solving activities associated with improving the performance of existing practice, and through the development of individual capabilities to perform existing routines. CMD may also have an impact on operational capabilities by facilitating the development of social capital that encourages cooperation and coordination across communities, and the sharing of resources.

Organisational Change Capabilities are associated with double loop organisational learning (Argyris, 2005) that leads to the exploitation of new knowledge through transformational change. Learning related to change capabilities is often associated with the strategic activities of the organisation. Change capabilities have an indirect impact on performance as it is the resulting configuration of operational resources and routines that generates organisational performance, rather than the change routines per se (Vera, Crossan and Apaydin, 2011).

Change capabilities are enhanced by CMD through the development of individual level leader capabilities, the development of cohesive leadership practices across communities, and through the alignment and engagement of participants and their communities with the implementation of strategic change.

Organisational Learning Capabilities are associated with deuterio learning (Vera, Crossan and Apaydin, 2011) that develops the organisation's learning system and practices. Learning at this level is associated with the organisation's ability to sense and assimilate information from the environment relating to both opportunities and threats. As with change capabilities, learning capabilities do not directly impact performance, it is the resultant change in operational routines generated by learning that affects performance.

Learning capabilities may be enhanced by CMD through the development of a common language and schemas that assist with collective sense making. The development of relationships that facilitate knowledge sharing and dialogue beyond the intervention will also have an impact on the organisation's learning capability.

Although CMD might generate a cumulative change in participant perception, this may not manifest as a change in operational routines or behaviours, as the change in perception may serve to reinforce the existing routines, rather than bring them into question. This may be a positive outcome in more stable markets, however it may lead to rigidity that has a negative impact on performance in turbulent markets (Argyris, 1999).

Vera et al. (2011) suggest that the three organisational capabilities are interrelated and causally linked to organisational performance, which they define as the organisation's success or failure to achieve its objectives.

The relationship between capabilities and organisational performance can be both negative and positive. On the negative side an organisation's capabilities may become so embedded that they persist even when there is a change in context that reduces their effectiveness. On the positive side an organisation's capabilities may generate efficiencies or innovation that results in higher performance.

4.5.5. Contextual Factors

The model at Figure 29 differs from the impact process that predominates within the management development literature as it suggests that the organisation's context is of fundamental importance to the learning design, how learning occurs during the intervention,

and how learning becomes integrated into the organisation's routines beyond the temporal boundaries of the intervention.

The organisational impact of any CMD intervention will be dependent on factors that exist within the organisation's wider context (see Appendix T). These factors will inform the way that participants assimilate learning from the intervention; whether new learning manifests as a change in organisational capability; and whether any resulting change in organisational capability has a positive or negative impact on the organisation's performance.

Environmental factors: The grey box in Figure 29 represents the wider context of the organisation including how turbulent the environment is. The relationship between organisational capabilities and organisational performance as an outcome is moderated by the congruence of capabilities with the wider organisational context (Vera, et al., 2011). In turbulent environments, it can be argued that the focus of CMD would be on deuterio learning and developing the organisation's ability to reconfigure its operational routines. In more stable environments the focus might be to deliver operational efficiencies by correcting errors in operational routines.

The grey box emphasises the need for CMD to be designed in accordance with the specific needs and constraints of the organisation's unique context. If the purpose of CMD is not aligned, then CMD may achieve the specified objectives set by commissioning stakeholders, yet still have a negative impact on the organisation's performance.

Existing Organisational Capabilities: The organisation's existing capabilities will have an impact on what and how the participants learn during the CMD intervention. The participant's experience with organisational routines may also serve as a resource that is used within the learning process to assimilate new knowledge.

Behaviours and routines from the workplace may manifest within the learning environment through the participants and the senior managers who sponsor the intervention. For example, where an organisation's routines promote responsiveness, scheduled learning activities such as participation in an action learning group might be disrupted at short notice.

Direct Participants: There are at least two categories of direct participant who attend CMD interventions. The first are *incumbent* participants who attend to receive development related to their current position and responsibilities. The second are *transitioning* participants who attend to receive development in preparation for their transfer to a new role within their organisation.

Those requiring development related to their current role potentially have the capacity, authority and experience to make changes to the processes and routines in which their community engages. They are therefore suited to CMD designs that involve a *practice development* component that potentially involves a *low control* CMD design where the tutor acts as a facilitator or guide to support exploratory learning.

Participants who are preparing for transition into a new role or community may not yet have the authority, experience or contact with the new context to engage in *practice development*. The priority for transitioning participants may therefore be *personal development* that is aimed at understanding the practices and routines of the target community, and developing the competences and relationships which will aid their future transition. Potentially, those who lack the practical experience of operating within a particular role may require *high control* CMD designs where the tutor acts as an expert who instructs the participants in the use of tools and techniques that will aid their performance of specific role related tasks.

Indirect Participants: Indirect participants are those within the wider organisational community that will influence or be influenced by CMD outcomes, however appear to take no active part within the intervention itself.

Potentially, indirect participant stakeholders will have an influence on CMD action formation mechanisms where their behaviours and routines are *carried* into the intervention by the direct participants who may mimic their behaviours and/or assimilate their experiences through consideration of their reactions, shared experiences and common schemas.

In the model, the impact of indirect participants actions and behaviours that take place outside the boundaries of the CMD intervention are denoted by a solid red line that links with the transformational mechanism box.

CMD changes the course of change for the direct participants by subjecting them to the influence of external knowledge provided by tutors, other participants and senior stakeholders. It can be argued that access to external knowledge broadens options and therefore increases flexibility, whereas exposure to internal knowledge embeds routines and increases stability (Bierly and Chakrabarti, 1996; Wong, 2004). There may therefore be a tension between the learning by direct participants who have been subject to external knowledge and the indirect participants who have been subject to internal practice-based knowledge only.

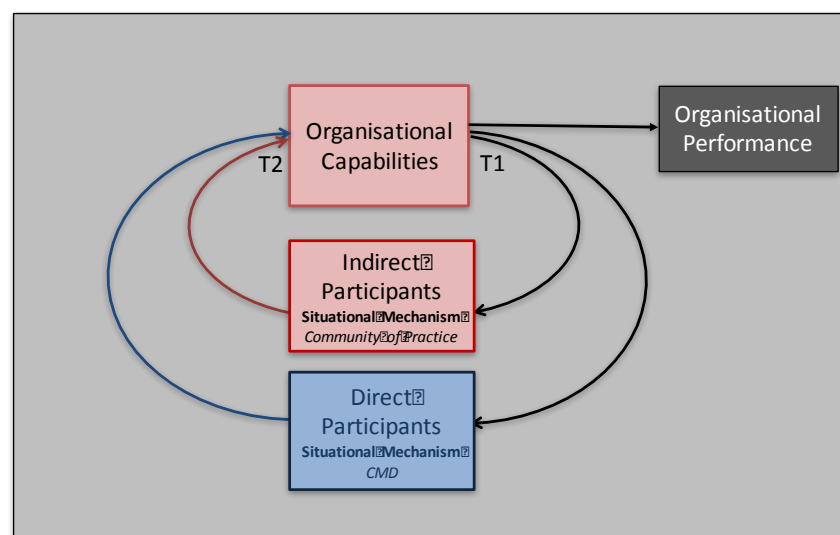


Figure 31: Learning Trajectories

This tension is illustrated in Figure 31. At T1 the direct participants and indirect participants share a common understanding of the organisation that has been developed through shared experiences within the community of practice. At T2, due to different learning trajectories, the indirect and direct participants possess potentially competing knowledge.

The tension between competing knowledge will manifest in the organisation's capabilities, in some contexts generating further learning and innovation, or in others reducing the alignment and/or engagement of members within the community of practice.

CMD may also have an inadvertently negative impact on the engagement of indirect participants who may feel excluded from strategic discussions, or in some contexts marginalised by their unintentional categorisation as 'non-talent'.

4.5.6. The Negative Outcomes of CMD

It can be argued that an overarching aim of CMD investment is organisational performance. Figure 32 illustrates the connection between *CMD Action Formation Mechanisms*, *Organisational Capabilities* and *Organisational Performance*.

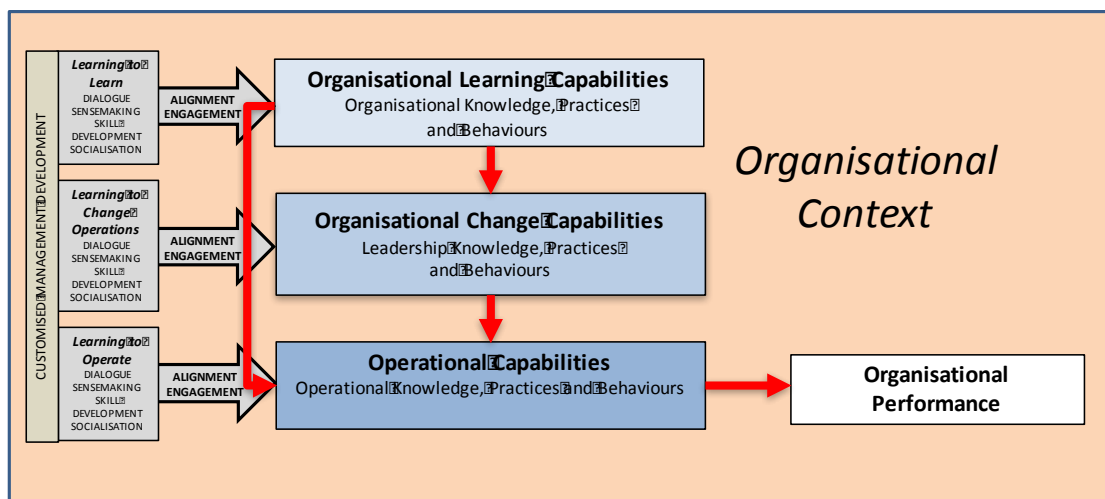


Figure 32: CMD Organisational Level Outcomes

One of the contributions of this research is to demonstrate that not all outcomes from CMD activity will be positive at the organisational level. Only learning that is effective and relevant to the organisation's specific context has the potential to have a positive impact on capabilities and ultimately the organisation's performance. For example, with low control programme designs, the participants may share their experiences and reach incorrect conclusions about the organisation and what is needed. CMD may also be used as a political

tool to promote the agenda of an individual leader rather than align participants and their communities with the needs of the wider environmental context.

It has also been argued that the different learning trajectories of Direct and Indirect Participants may result in tensions within the community of practice that serve to reduce the alignment and engagement of members, thus having a negative impact on organisational capabilities.

It is often assumed by practitioners and within the literature, that the socialisation of participants within a CMD context will lead to improved networks and collaborative behaviours. But, on occasions, hostility may develop between participants, particularly in contexts where they are required to work collectively on projects that are *assessed* by senior leaders.

The existence of negative outcomes at the organisational level emphasises the importance of context throughout the CMD process from commissioning through to delivery and the evaluation of outcomes. What works within one organisational context may not work effectively in the next, or within the same organisation for another population or at another point in time.

4.6. Knowledge Artefacts

What follows is an explanation of the knowledge artefacts that have been developed under the collective term *Design for Impact* within the Centre of Customised Management Development at Cranfield School of Management.

The purpose of the diagrams at Appendix A, is to develop stakeholder consensus about the specific CMD requirement within the client's organisational context. The Design Propositions at Appendix B to E, illustrate how the CMD design will differ according to the specific organisational and participant group requirement.

Appendix A has been used to explain the relationship between different organisational level capabilities and organisational performance, and the specific contexts where CMD might align with each, for example:

- In contexts that are relatively stable and where the client requires an immediate and visible payback from CMD the benefits and drawbacks of focusing on the performance of existing operational practices may be explored.
- In contexts where the client is implementing a specific strategy within the organisation, the benefits and drawbacks of focusing CMD on the organisation's change capability may be explored.
- In VUCA contexts (*Volatile, Uncertain, Complex and Ambiguous*) the benefits and drawbacks of locating CMD in the development of organisational learning capabilities may be explored.

The diagrams held at Appendix A have been used by Programme Directors during the sale and commissioning of CMD to explain how CMD is expected to generate change through the participants' interaction with the programme. The relative simplicity of the models has helped to develop consensus amongst diverse groups of stakeholders about how individual learning objectives will link with the intended organisational level outcomes of a programme.

4.6.1. Design Propositions

Suggestions of how to design interventions within specific contexts are provided in the tables at Appendices B to D.

Appendix B identifies how the focus of the different CMD mechanisms changes depending on the required change in organisational capability. The table includes a suggestion of how to design the intervention using the mechanisms to generate more focused outcomes. For example, operational capabilities might be strengthened by deliberately constructing cohorts in a way to facilitate the horizontal socialization of participants across organisational silos.

Whereas change capabilities might be strengthened by deliberately constructing cohorts to vertically connect between levels of seniority.

Appendices C and D suggest how CMD might be designed in accordance with the needs of the two different development populations, *Incumbent* and *Transitioning* employees.

Appendix C suggests *what to do*. Appendix D suggests *what to avoid*. Appendix E suggests how the focus of CMD might differ depending on the seniority of participants.

A practice-based illustration of how the design propositions have been used to shape the specific design a programme is held at Appendix R.

4.7. Conclusion

Research questions related to organisational impact have often focused on the measurement rather than the management of impact, with the intention of proving that CMD works regardless of context.

The aim of this research was to develop a putative theory of organisational impact that has the power to explain what works for whom in what contexts, with the intention of improving the design and practice of CMD interventions.

The literature review that preceded this research identified a focus on individual level behavioural change and agency rather than organisational level outcomes. There was also a bias towards reporting positive outcomes rather than explaining the unexpected or potentially negative outcomes of CMD in specific contexts.

In P2 a review of programmes at Cranfield School of Management using CIMO logic revealed new insight into the challenges of generating organisational impact from CMD. This led to the development of an operational model that was found to facilitate further dialogue with practitioners about the design and efficacy of CMD interventions within specific organisational contexts.

The discussions that were facilitated through use of the model were found to be particularly useful to those who design CMD interventions, however, they were found to be less useful to those who commission interventions and required more specific advice of *what to do* and *what not to do* within specific contexts. This led to the development of additional knowledge artefacts including diagrams and Design Propositions in the form of tables (Appendix A to E) that have since been adopted within the researcher's practicing community under the umbrella term *Design for Impact*.

The *Design for Impact* approach has stimulated new conversations that have helped to transfer knowledge between practitioners and generated changes in CMD practice underpinned by theories from the organisational learning literature.

This in turn has led to innovations in programme design, and to an aggregation of learning across programmes to the benefit of both experienced and less experienced Programme Directors.

The quotation below is from an email received from an experienced Programme Director who has recently been using the Design for Impact approach. Further quotations are provided at Appendix I as evidence of the pragmatic validity of the models and frameworks presented in this research.

*“During a pitch for a significant piece of new business the client made us aware that they wished us to demonstrate our design methodology and how that would relate to the long-term impact of the programme. Utilising the **Design For Impact** framework we were able to talk the client through the range of implications both in terms of the implications of the context for individuals and how it relates to the required organisational outcome. The client felt that the framework clearly explained how our methodology would be applied in practice and subsequently awarded us with the work.*

As a complementary theory to agent-based theories of impact within the traditional management development literature, this research has the potential to generate new conversations and open-up new lines of inquiry related to the development of specific

organisational outcomes within specific contexts. It also has the potential to inform new conversations amongst practitioners involved in the design of CMD interventions for specific organisational contexts.

4.8. Research Limitations

Because of the tentative nature of claims made from abductive reasoning, its use is most suited to complex contexts where the aim is to identify plausible explanations from patterns at the early stages of theory building, rather than looking to prove a concept through the proposition of a tested solution (Gold et al., 2011).

The models and artefacts presented in this paper are provided to guide practitioner conversations about the organisational level impact of CMD.

The practical validity of the artefacts and design propositions presented in this paper have been tested at Cranfield School of Management, but they still require further testing beyond Cranfield's community of clients and colleagues.

5. References

- Abrell, C., Rowold, J., Weibler, J. and Moenninghoff, M. (2011) 'Evaluation of a Long-term Transformational Leadership Development Program**/Evaluierung eines Personalentwicklungsprogramm zur langfristigen Verbesserung der transformationalen Führungsleistung', *Zeitschrift für Personalforschung*, 25(3) München, Germany, München: Rainer Hampp Verlag, pp. 205–224.
- van Aken, J.E. and Romme, G. (2009) 'Reinventing the future: adding design science to the repertoire of organization and management studies', *Organisation Management Journal*, 6, pp. 5–12.
- Anderson, L. (2010) "Talking the talk" - a discursive approach to evaluating management development', *Human Resource Development International*, 13(3) Abingdon, Abingdon: Taylor & Francis Ltd., p. 285.
- Antonacopoulou, E.P. (2001) 'The paradoxical nature of the relationship between training and learning', *Journal of Management Studies*, 38(3), pp. 328–350.
- Ardts, C.A., van der Velde, M.E.G. and Maurer, T.J. (2010) 'The influence of perceived characteristics of management development programs on employee outcomes', *Human Resource Development Quarterly*, 21(4) Hoboken, United States, Hoboken: Wiley Periodicals Inc., p. 411.
- Argyris, C. (1999) *On Organisational Learning*. Oxford: Blackwell Publishing.
- Argyris, C. (2005) 'Double loop learning in organisations: A theory of action perspective,' in Smith, K. G. and Hitt, M. A. (eds.) *Great Minds in Management: The process of theory development*. New York: Oxford University Press, p. pp261 – 279,.
- Avolio, B.J., Avey, J.B. and Quisenberry, D. (2010) 'Estimating return on leadership development investment', *Leadership Quarterly*, 21(4), pp. 633–644.
- Bailey, C. and Fletcher, C. (2002) 'The impact of multiple source feedback on management development: Findings from a longitudinal study', *Journal of Organizational Behavior*, 23(7) Chichester, United States, Chichester: Wiley Periodicals Inc., pp. 853–867.
- Baldwin, T.T. and Ford, J.K. (1988) 'Transfer of training: A review and directions for future research', *Personnel Psychology*, 41, pp. 63–105.
- Baldwin, T.T. and Padgett, M.Y. (1994) 'Management development: A review and commentary.', in Cooper, L. and Robertson, I. T. (eds.) *Key reviews in managerial psychology*. Chichester, UK: Wiley, pp. 270–320.
- Bandura, A. (1977) *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.

- Bandura, A. (1986) *Social foundations of thought and actions*. Englewood Cliffs, NJ: Prentice Hall.
- Bartol, K.M. and Zhang, X. (2007) 'Networks and leadership development: Building linkages for capacity acquisition and capital accrual', *Human Resource Management Review*, 17(4) Greenwich, United Kingdom, Greenwich: Elsevier Science Ltd., p. 388.
- Bennis, W.G. and O'Toole, J. (2005) 'How Business Schools lost their way', *Harvard Business Review*, (May), pp. 96–104.
- Berg, M.E. and Karlsen, J.T. (2012) 'An evaluation of management training and coaching', *Journal of Workplace Learning*, 24(3) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 177–199.
- Berger, M. (1989) 'Management Training and Organisation Development for Real', *Management Decision*, 27(4) London, United Kingdom, London: Emerald Group Publishing, Limited, p. 106.
- Berger, M. (1985) 'Management Training and Organisation Development for Real', *Journal of European Industrial Training*, 9(7), pp. 22–26.
- Berger, P. and Luckmann, T. (1966) *The social construction of reality: A treatise in the sociology of knowledge*. London: Penguin Books.
- Bernthal, P., Cook, K. and Smith, A. (2001) 'Needs and outcomes in an executive development program: A matter of perspective', *The Journal of applied behavioral science*, 37(4) Arlington, United States, Arlington: SAGE PUBLICATIONS, INC., pp. 488–512.
- Bierly, P., Chakrabarti, A. (1996) 'GENERIC KNOWLEDGE STRATEGIES IN THE U . S . PHARMACEUTICAL INDUSTRY', *Strategic Management Journal*, 17(Winter), pp. 123–135.
- Bilhuber Galli, E. and Müller-Stewens, G. (2012) 'How to build social capital with leadership development: Lessons from an explorative case study of a multibusiness firm', *Leadership Quarterly*, 23(1), pp. 176–201.
- Black, A.M. and Earnest, G.W. (2009) 'Measuring the Outcomes of Leadership Development Programs', *Journal of Leadership & Organizational Studies*, 16(2) Flint, United States, Flint: Baker College, p. 184.
- Blaikie, N. (2007) *Approaches to Social Enquiry*. Cambridge: Polity Press.
- Blume, B.D., Ford, J.K., Baldwin, T.T. and Huang, J.L. (2010) 'Transfer of Training: A Meta-Analytic Review', *Journal of Management*, 36(4), pp. 1065–1105.
- Boaden, R.J. (2006) 'Leadership development: does it make a difference?', *Leadership & Organization Development Journal*, 27(1/2) Bradford, United Kingdom, Bradford: Emerald

Group Publishing, Limited, pp. 5–27.

Bontis, N., Crossan, M.M. and Hulland, J. (2002) 'Managing an Organizational Learning System by Aligning Stocks and Flows', *Journal of Management Studies*, 39(4) Wiley-Blackwell, pp. 437–469.

Bramley, P. (1999) 'Evaluating effective management learning', *Journal of European Industrial Training*, 23(3) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 145–153.

Brodie, M. (1983) 'Evaluation and Predictability in Management Development', *The Journal of Management Development*, 2(4) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, p. 42.

Brown, P. (2003) 'Seeking success through strategic management development', *Journal of European Industrial Training*, 27(6/7) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 292–303.

Brown, P. (2005) 'The evolving role of strategic management development', *The Journal of Management Development*, 24(3) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 209–222.

Brown, P. (2007a) 'Strategic MD', in Hill, R. and Stewart, J. (eds.) *Management Development: Perspectives from research and practice*. London: Routledge, pp. 40–59.

Brown, T. (2009) *Change By Design*. Kindle. Harper Collins e-books.

Brown, W.A. (2007b) 'Board development practices and competent board members: Implications for performance', *Nonprofit Management and Leadership*, 17(3) San Francisco, United Kingdom, San Francisco: John Wiley and Sons, Limited, p. 301.

Brown, W. and May, D. (2012) 'Organizational change and development', *The Journal of Management Development*, 31(6) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 520–536.

Buckley, F. and Monks, K. (2008) 'Responding to Managers' Learning Needs in an Edge-of-Chaos Environment: Insights From Ireland', *Journal of Management Education*, 32(2) Thousand Oaks, United States, Thousand Oaks: SAGE PUBLICATIONS, INC., p. 146.

Burke, V. and Collins, D. (2005) 'Optimising the effects of leadership development programmes: A framework for analysing the learning and transfer of leadership skills', *Management Decision*, 43(7/8) London, United Kingdom, London: Emerald Group Publishing, Limited, pp. 975–987.

Burke, V. and Collins, D. (2004) 'Optimising skills transfer via outdoor management development: Part II: the client's perspective', *The Journal of Management Development*, 23(7/8) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 715–728.

Burnett, D. and James, K. (1993) 'Body/mind psychology in manager development: A route to enhanced managerial effectiveness', *European Management Journal*, 11(4) London, United States, London: Pergamon Press Inc., p. 466.

Caligiuri, P. and Tarique, I. (2009) 'Predicting effectiveness in global leadership activities', *Journal of World Business*, 44(3) Greenwich, United Kingdom, Greenwich: Elsevier Science Ltd., p. 336.

Carden, L.L. and Callahan, J.L. (2007) 'Creating leaders or loyalists? conflicting identities in a leadership development programme', *Human Resource Development International*, 10(2) Routledge, pp. 169–186.

Carr, A.N. and Lipp, C.A. (formerly (2011) 'The use and abuse of storytelling in organizations', *The Journal of Management Development*, 30(3) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 236–246.

Carroll, B., Levy, L. and Richmond, D. (2008) 'Leadership as Practice: Challenging the Competency Paradigm', *Leadership*, 4(4), pp. 363–379.

Cepeda, G. and Vera, D. (2007) 'Dynamic capabilities and operational capabilities: A knowledge management perspective', *Journal of Business Research*, 60(5), pp. 426–437.

Clement, R.W. (1988) 'Management Development in the 1980s: A field in transition', *Journal of Management Development*, 7, pp. 45–55.

Collier, D. (1993) 'The comparative method', in Finifter, A. W. (ed.) *Political Science: The State of the Discipline*. II. Washington: American Political Science Association, pp. 105–119.

Collins, D.B. and Holton, E.F. (2004) 'The Effectiveness of Managerial Leadership Development Programs: A Meta-Analysis of Studies 1982 to 2001', *Human Resource Development Quarterly*, 15(2), pp. 217–247.

Collins, J. and Denyer, D. (2008) 'Leadership, learning and development: A framework for evaluation', in Turnbull James, K. and Collins, J. (eds.) *Leadership Learning: Knowledge into Action*. London: Palgrave, pp. 161–178.

Cullen, J. and Turnbull, S. (2005) 'A meta-review of the management development literature', *Human Resource Development Review*, 4(3), pp. 335–355.

Cullens, J. and Waters, R.J. (2012) Leadership development as a tool for building expertise and knowledge *Strategic HR Review*.

Currie, G. and Darby, R. (1995) 'Competence-based management development: Rhetoric and reality', *Journal of European Industrial Training*, 19(5) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, p. 11.

Dansereau, F., Yammarino, F.J. and Kohles, J.C. (1999) 'Multiple Levels of Analysis from a Longitudinal Perspective: Some Implications for Theory Building', *Academy of Management Review*, 24(2), pp. 345–357.

Day, D. (2001) 'Leadership development:: A review in context', *The Leadership Quarterly*, 11(4), pp. 581–613.

Denyer, D., Tranfield, D. and van Aken, J.E. (2008) 'Developing Design Propositions through Research Synthesis', *Organization Studies*, 29(3) Berlin, United Kingdom, Berlin: Sage Publications Ltd., p. 393.

Denyer, D. and Turnbull James, K. (2015) *Doing Leadership as Practice Development*.

Dexter, B. and Prince, C. (2007) 'Turning managers into leaders: assessing the organizational impact of leadership development', *Strategic Change*, 16(5) Chichester, United States, Chichester: Wiley Periodicals Inc., p. 217.

Easterby-Smith, M., Thorpe, R. and Jackson, P.R. (2008) *Management Research*. London: Sage.

Elias & Merriam, S., J. (2005) *Philosophical foundations of adult education*. Malabar, FL: Krieger.

Espedal, B. (2004) 'Management and Leadership Development in Norway: Discrepancies Between Talk and Action', *Advances in Developing Human Resources*, 6(4) San Francisco, United States, San Francisco: SAGE PUBLICATIONS, INC., pp. 470–485.

Espey, J. and Batchelor, P. (1987) 'Management by Degrees: A Case Study in Management Development', *The Journal of Management Development*, 6(5) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, p. 61.

Finch-Lees, T., Mabey, C. and Liefoghe, A. (2005) "'In the name of capability": A critical discursive evaluation of competency-based management development', *Human Relations*, 58(9) New York, United States, New York: SAGE PUBLICATIONS, INC., pp. 1185–1222.

Friedman, V.J., Lipshitz, R. and Overmeer, W. (2001) 'Creating Conditions for Organizational Learning', in Dierkes, M., Berthoin Antal, A., Child, J. and Nonaka, I. (eds.) *Handbook of Organizational Learning and Knowledge*. Oxford: Oxford University Press, pp. 757–774.

Fulmer, R.M. (1997) 'The evolving paradigm of leadership development', *Organizational dynamics*, 25(4) New York, United Kingdom, New York: Elsevier Science Ltd., pp. 59–72.

Galli, E.B. and Müller-Stewens, G. (2012) 'How to build social capital with leadership development: Lessons from an explorative case study of a multibusiness firm', *Leadership Quarterly*, 23(1) Greenwich, United Kingdom, Greenwich: Elsevier Science Ltd., p. 176.

- Garvin, D.A. (1993) 'Building a learning organization', *Harvard business review*, 71(4) Harvard Business School Publication Corp, pp. 78–91.
- Gibb, S. (2004) 'Arts-based training in management development: The use of improvisational theatre', *The Journal of Management Development*, 23(7/8) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 741–750.
- Gibbons, M., C. Limoges, H. Nowotny, S. Schwartzman, P. and Scott and M. Trow (1994) *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: Sage.
- Glastra, F.J. and Meerman, M. (2012) 'Developing ethnic talent in the Dutch national tax administration: a case study', *European Journal of Training and Development*, 36(1) Limerick, United Kingdom, Limerick: Emerald Group Publishing, Limited, pp. 105–124.
- Gold, J., Walton, J., Cureton, P. and Anderson, L. (2011) 'Theorising and practitioners in HRD: the role of abductive reasoning', *Journal of European Industrial Training*, 35(3), pp. 230–246.
- Griffin, R.P. (2010) 'Means and ends: effective training evaluation', *Industrial & Commercial Training*, 42(4), pp. 220–225.
- Hedstrom, P. and Swedberg, R. (1998a) 'Social Mechanisms: An introductory essay', in Hedstrom, P. and Swedberg, R. (eds.) *Social Mechanisms: an analytical approach to social theory*. Cambridge: Cambridge University Press, pp. 1–31.
- Hedstrom, P. and Swedberg, R. (1998b) *Social Mechanisms: An Analytical Approach to Social Theory*. Cambridge: Cambridge University Press.
- Helfat, C.E. and Winter, S.G. (2011) 'Untangling Dynamic and Operational Capabilities: Strategy for the (N)ever-Changing World', *Strategic Management Journal*, 32(11), pp. 1243–1250.
- Hordern, J. (2012) 'Embedding management knowledge: repertoires and reservoirs', *Industrial and Commercial Training*, 44(2) Guilsborough, United Kingdom, Guilsborough: Emerald Group Publishing, Limited, pp. 109–115.
- Hotho, S. and Dowling, M. (2010) 'Revisiting leadership development: the participant perspective', *Leadership & Organization Development Journal*, 31(7) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 609–629.
- Huff, A.S. (1999) *Writing for scholarly publication*. London: Sage Publications Inc.
- Jackson, S., Farndale, E. and Kakabadse, A. (2003) 'Executive development: Meeting the needs of top teams and boards', *The Journal of Management Development*, 22(3) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 185–265.

Joo, B. (2005) 'Executive Coaching : A Conceptual Framework From an Integrative Review of Practice and Research'

Kamoche, K. (2000) 'Developing managers: The functional, the symbolic, the sacred and the profane', *Organization Studies*, 21(4) Berlin, United Kingdom, Berlin: Sage Publications Ltd., pp. 747–774.

Kawalek, J.P. (2006) 'Case study Organisational change through management development: A case study of GW Power Utilities', *International Journal of Information Management*, 26(4) Kidlington, United Kingdom, Kidlington: Elsevier Science Ltd., p. 339.

Keating, C.B., Kauffmann, P. and Dryer, D. (2001) 'A framework for systemic analysis of complex issues', *The Journal of Management Development*, 20(9/10) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 772–784.

Kessler, I. and Bach, S. (2014) 'Comparing Cases', in Edwards, P. K., O'Mahoney, J. and Vincent, S. (eds.) *Studying Organizations Using Critical Realism: A Practical Guide*. Oxford: Oxford University Press, pp. 168–184.

Kirkpatrick, D. (1996) 'Great Ideas Revisited: Techniques for evaluating training', *Training and Development*, 50(1), pp. 54–59.

Knowles, M.S., Holton, E.F. and Swanson, R.A. (1998) *The Adult Learner*,. Houston, TX: Butterworth-Heinemann.

Kolb, A.Y. and Kolb, D.A. (2005) 'Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education', *Academy of Management Learning & Education*, 4(2) Briarcliff Manor, United States, Briarcliff Manor: Academy of Management, pp. 193–212.

Ladyshevsky, R.K. (2007) 'A strategic approach for integrating theory to practice in leadership development', *Leadership & Organization Development Journal*, 28(5) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 426–443.

Lees, S. (1992) 'Ten faces of management development', *Management education and development*, 23, pp. 89–105.

Long, R. and Jinks, M. (1982) 'Evolving an Experiential Management Development Programme', *Journal of European Industrial Training*, 6(7), pp. 9–15.

Mabey, C. and Gooderham, P.N. (2005) 'The impact of management development on perceptions of organizational performance in European firms', *European Management Review*, 2(2) Oxford, United Kingdom, Oxford: Blackwell Publishing Ltd., pp. 131–142.

Mabey, C. and Ramírez, M. (2005) 'Does management development improve organizational productivity? A six county analysis of European firms', *International Journal of Human*

Resource Management, 16(7), pp. 1067–1082.

Martin, R. (2009) *The Design of Business: Why Design Thinking Is the Next Competitive Advantage*. Kindle. Harvard Business Press.

Maurer, T.J. and Palmer, J.K. (1999) 'Management development intentions following feedback - Role of perceived outcomes, social pressures, and control', *The Journal of Management Development*, 18(9) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 733–751.

McCarthy, A.M. and Garavan, T.N. (2007) 'Understanding acceptance of multisource feedback for management development', *Personnel Review*, 36(6) Farnborough, United Kingdom, Farnborough: Emerald Group Publishing, Limited, pp. 903–917.

Militello, M. and Benham, M.K.P. (2010) "'Sorting Out" collective leadership: How Q-methodology can be used to evaluate leadership development', *Leadership Quarterly*, 21(4) Greenwich, United Kingdom, Greenwich: Elsevier Science Ltd., p. 620.

Mintzberg, H. (2011) 'From Management Development to Organization Development with Impact', *OD Practitioner*, 43(3), pp. 25–29.

Minzberg, H., Ahlstrand, B., Lampel, J. (1998) *Strategy Safari: A Guided Tour through the Wilds of Strategic Management*. New York: The Free Press.

Mumford, A. and Gold, J. (2004) *Management Development: Strategies for Action*. London: CIPD.

Newstrom, J.W. (1985) 'Mod'' Management Development: Does It Deliver What It Promises?', *The Journal of Management Development*, 4(1) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, p. 3.

Newstrom, J.W. (1986) 'Leveraging Management Development Through the Management of Transfer', *The Journal of Management Development*, 5(5) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, p. 33.

Overmeer, W. (1997) 'Business integration in a learning organization: the role of management development', *The Journal of Management Development*, 16(4) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 245–261.

Pascal, A., Thomas, C. and Romme, A.G. (2013) 'Developing a Human-centred and Science-based Approach to Design: The Knowledge Management Platform Project', *British Journal of Management*, 24, pp. 264–280.

Patching, K. (1999) *Management and Organisational Development: beyond arrows, boxes and circles*. Basingstoke: Macmillan Press Ltd.

Pawson, R. (2013) *The Science of Evaluation: A realist manifesto*. London: Sage.

Pawson, R. (2006) *Evidence Based Policy: A Realist Perspective*. London: Sage

Publications.

Pawson, R. and Tilley, N. (1997) *Realistic Evaluation*. London: Sage.

Petriglieri, G. and Petriglieri, J. (2015) *Can Business Schools Humanize Leadership?*. Paris, OBH.

Petticrew, M. and Roberts, H. (2006) *Systematic reviews in the social sciences: a practical guide*. Oxford, UK: Blackwell Publishing.

Purcell, J. and Kinnie, N. (2007) 'HRM and business performance', in Boxall, P., Purcell, J. and Wright, P. (eds.) *The Oxford handbook of human resources management*. Oxford: Oxford University Press.

Rees, C. and Gatenby, M. (2014) 'Critical Realism and Ethnography', in Edwards, P. K., O'Mahoney, J. and Vincent, S. (eds.) *Studying Organizations Using Critical Realism: A Practical Guide*. Oxford: Oxford University Press, pp. 132–147.

Richards, B. and Howard, P. (2004) Leadership Development at Toronto Rehab: Aligning Thinking With Behavior *Journal for Quality & Participation*. American Society for Quality, Inc.

Romme, A.G. and Damen, I.C.M. (2007) 'Towards Science-Based Design in Organization Development: Codifying the Process', *The Journal of Applied Behavioural Science*, 43(1), pp. 108–121.

Rousseau, D.M., Manning, J. and Denyer, D. (2008) 'Chapter 11: Evidence in Management and Organizational Science: Assembling the Field's Full Weight of Scientific Knowledge Through Syntheses', *Academy of Management Annals*, 2 Routledge, pp. 475–515.

Rousseau, D.M. and McCarthy, S. (2007) 'Educating Managers From an Evidence-Based Perspective', *Academy of Management Learning & Education*, 6(1) Briarcliff Manor, United States, Briarcliff Manor: Academy of Management, pp. 84–101.

Schein, E.H. (1961) 'Management Development as a Process of Influence', *Industrial Management Review (pre-1986)*, 2(2) Cambridge, United States, Cambridge: Massachusetts Institute of Technology, p. 59.

Sigaloff, C., Nabben, I. and Bergsma, E. (2007) 'The building of the kitchen table', *Management Decision*, 45(10) London, United Kingdom, London: Emerald Group Publishing, Limited, pp. 1677–1684.

Simmonds, D. and Tsui, O. (2010) 'Effective design of a global leadership programme', *Human Resource Development International*, 13(5) Abingdon, Abingdon: Taylor & Francis Ltd., p. 519.

Stake, R.E. (2006) *Multiple Case Study Analysis*. Guildford UK: Guildford Press.

Storey, J. (1990) 'Management Development: A Literature Review and Implications for Future Research - Part II: Profiles and Contexts', *Personnel Review*, 19(1) Farnborough, United Kingdom, Farnborough: Emerald Group Publishing, Limited, p. 3.

Storey, J. (1989) 'Management Development: A literature review and implications for future research part 1: Conceptualisations and practices', *Personnel Review*, 18, pp. 3–19.

Swierstra, T. and Rip, A. (2007) *Nano-ethics as NEST-ethics: Patterns of moral argumentation about new and emerging science and technology*.

Thach, E.C. (2002) 'The impact of executive coaching and 360 feedback on leadership effectiveness', *Leadership & Organization Development Journal*, 23(3/4) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, p. 205.

Thorne, E.A. and Wright, G. (2005) 'Developing strategic alliances in management learning', *Journal of European Industrial Training*, 29(4/5) Bradford, United Kingdom, Bradford: Emerald Group Publishing, Limited, pp. 383–404.

Tranfield, D., Denyer, D. and Smart, P. (2003) 'Towards a methodology for developing evidence-informed management knowledge by means of systematic review', *British Journal of Management*, 14, pp. 207–222.

Tsoukas, H. (2005) *Complex Knowledge: Studies in Organizational Epistemology*. Oxford: Oxford University Press.

Tsoukas, H. and Mylonopoulos, N. (2004) *Organizations as Knowledge Systems: Knowledge, learning and dynamic capability*. London: Palgrave.

Vera, D., Crossan, M. and Apaydin, M. (2011) 'A Framework for Integrating Organizational Learning, Knowledge, Capabilities, and Absorptive Capacity', in Easterby-Smith, M. and Lyles, M. A. (eds.) *Handbook of Organizational Learning and Knowledge Management*. Chichester, West Sussex: Wiley, pp. 153–180.

Watkins, K. and Marsick, V. (1993) *Sculpting the Learning Organisation*. San Francisco, CA,: Jossey Bass.

Watkins, K.E., Lysø, I.H. and deMarrais, K. (2011) 'Evaluating Executive Leadership Programs: A Theory of Change Approach', *Advances in Developing Human Resources*, 13(2) San Francisco, United States, San Francisco: SAGE PUBLICATIONS, INC., p. 208.

Wexley, K.N. and Baldwin, T.T. (1986) 'Management Development', *Journal of Management*, 12(2) Bloomington, United States, Bloomington: Southern Management Association, p. 277.

Winter, S. (2003) 'Understanding dynamic capabilities', *Strategic Management Journal*, 24, pp. 991–995.

Wong, S. (2004) 'Distal and Local Group Learning : Performance Trade-offs and Tensions', *Organization Science*, 15(6), p. 645.

Yin, R.K. (2009) *Case Study Research, Design and Methods: Applied Social Research Methods Series Vol.5*. Thousand Oaks, California: Sage.

Appendix A: Knowledge Artefacts – Diagrams

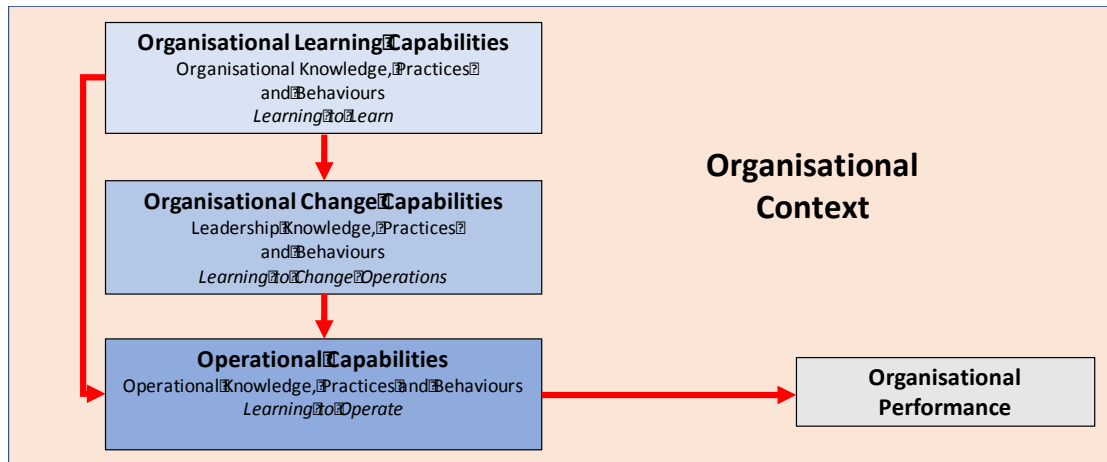
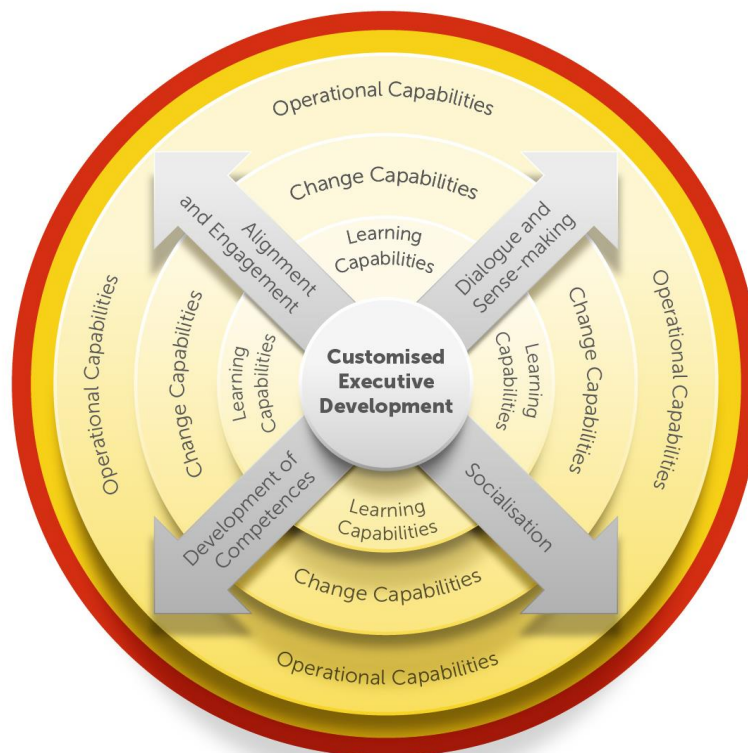


Diagram to explain the link between organisational level capabilities and organisational performance



Simplified Diagram to Explain How CMD Generates Organisational Level Change

Appendix B – Knowledge Artefacts: Design Propositions - The Manipulation of Mechanisms

Developing Organisational Level Capabilities				
Organisational Level Outcomes		Operational Capabilities	Organisational Change Capabilities	Organisational Learning Capabilities
Intervention Type		Learning to Operate	Learning to Change	Learning to Learn
Action Formation Mechanisms	Sense Making	Operational/Management Knowledge and Theory: Develop insight into best practice e.g. TAM, Demand Change Management, Finance, HRM, Corporate and Social Responsibility, Crisis Management	Leadership Knowledge and Theory: Develop insight into best practice e.g. Distributed, Situational and Transformational Leadership	Organisational Knowledge and Theory: Develop common Organisational Schemas, Language and Breadth of Perspective.
	Dialogue	Operational/Management Practices: Surface and Critique existing operational/management processes and practices	Leadership Practices: Surface and Critique existing organisational leadership processes and practices	Learning Practices: Surface and Critique existing organisational learning processes and practices.
	Individual Level Capabilities	Operational/Management Tools: Learn new techniques e.g. Performance management, Project Management, Courageous Conversations	Strategic/Leadership Tools: Learn new techniques e.g. Strategic Analysis, Change Management, Culture Change	Learning Tools: Learn new techniques e.g. Giving and Receiving Feedback, Coaching and Mentoring, Dialogue, Mindfulness, Action Learning, Design Thinking, Collaborative Learning
	Alignment	Operational/Management Behaviours: Disseminate Organisational Mission, Culture, Values and Behaviours	Leadership Behaviours: Disseminate Strategic Vision, Culture, Values and Leadership Behaviours	Learning Behaviours: Disseminate Learning Context, Culture, Values and Behaviours
	Engagement	Operational Engagement: Engage Participants in Cross/Intra-Functional Problem Setting and Solving	Strategic Engagement: Engage Participants in Strategic Projects, Feedforward and Feedback Strategic Information across Leadership Levels	Learning Engagement: Create the space for learning and reflection, and the development of social capital
	Socialization	Operational Relationships: Connect across silos and functions or within specific communities	Leadership Relationships: Connect across levels of leadership and between silos	Learning Relationships: Develop informal networking and collaborative opportunities

Appendix C: Knowledge Artefacts: Design Propositions - Things to Do

Context and Intervention	Organisational Mechanisms	Organisational Focus		
		Learning to Operate	Learning to Change	Learning to Learn
Incumbent Populations: Practice Development	Capabilities	Develop capabilities that address specific operational gaps	Develop the capability to implement transformational change	Develop the capability for Organisational Learning
	Dialogue and Sense-making	Focus dialogue and sense-making activities on the performance of existing systems and processes	Focus dialogue and sense-making on how to change existing systems and processes to meet the change in context	Focus dialogue and sense-making on Organisational innovation and Learning
	Alignment and Engagement	Align participant behaviour with the espoused organisational culture. Engage participants in Operational Improvement Initiatives	Align and engage participant actions with requirements of Strategic Plans	Develop the participants' ability to continually align and engage their actions with the requirements of an emerging context
	Socialization	Socialise participants in intact teams or bridge relationships horizontally across functions or silos	Socialise participants with leaders across levels to facilitate the vertical integration of strategy	Organise participants into diverse collaborative learning groups that facilitate knowledge creation
Transitioning Populations: Competence Development	Competences	Develop the competences required to perform existing practices and routines associated with the target role	Develop the competences required to perform changing practices and routines associated with the target role	Develop meta-competences that drive the use of knowledge and skills in practice
	Dialogue and Sense-making	Focus dialogue and sense-making activities on the requirements of the target role	Focus dialogue and sense-making on how the requirements of the target role are changing	Focus dialogue and sense-making on the importance of Personal Development and Lifelong Learning
	Alignment and Engagement	Align and engage participant behaviours with the requirements of the existing culture within the target community of practice	Align and engage participants' expectations with the strategic intent of senior leaders	Develop the participants' ability to continually align and engage their actions with the requirements of an emerging context
	Socialization	Socialise participants with members of the target community to facilitate entry and provide role models that support the development of behaviours	Socialise participants with senior leaders to develop followership and a commitment to change	Provide opportunities for participants to build personal networks that will support their ongoing development and performance within the organisation

Appendix D: Knowledge Artefacts: Design Propositions - Things to Avoid

Context and Intervention	Organisational Mechanisms	Organisational Focus		
		Learning to Operate	Learning to Change	Learning to Learn
Incumbent: Practice Development	Capabilities	Advocating methods that are inconsistent with the desired operational culture	Developing capabilities in only one tier of leadership	Generating an expectation of short-term impact
	Dialogue and Sense-making	Challenging the existing strategy or discussing where change is needed in communities not engaged in the development intervention	Developing divergent thinking between the development population and other populations of leaders	Generating debate and competition rather than dialogue and creativity
	Alignment and Engagement	Generating dissonance with non-participating members of the community of practice	Reducing followership by generating concern about the strategic capability of more senior leaders	Developing new ideas that are out of scope or beyond the capability of the organisation to implement
	Socialization	Generating disruptive coalitions	Excluding non-participants from strategic dialogue	Creating cliques of strongly bonded participants
Transitioning: Competence Development	Competences	Advocating methods that are inconsistent with existing ways of working within the target community	Involving leaders who do not role model the future behaviours required to deliver the strategy	Generating an expectation of short-term impact
	Dialogue and Sense-making	Challenging the existing ways of working within the target population	Excluding the participants and managers from strategic dialogue	Generating debate and competition rather than dialogue and creativity
	Alignment and Engagement	Generating dissonance with the target community	Developing a commitment to actions that are inconsistent with the planned strategic actions of line managers	Developing new ideas that are out of scope or beyond the capability of the organization to implement
	Socialization	Disrupting social relationships within the participants existing community of practice	Generating conflict within the participants existing community of practice	Creating exclusive cliques of strongly bonded participants

Appendix E: Knowledge Artefacts: Design Propositions Design by Participant Seniority

Participant Context		Organisational Focus		
Transitioning: Competence Development	Incumbent: Practice Development	Operational Strategy: Learning to Operate	Visionary Strategy: Learning to Change	VUCA Contexts: Learning to Learn
C-1 to C	C	Develop the Capability to Inspire Change		
		Invest in Performance; Raise the Performance Bar	Strategise, Advocate and Inculcate New Behaviours	Cultivate External Networks; Inspire Collaboration, Learning and Distributed Leadership
C-2 to C-1	C-1	Develop the Capability to Champion Change		
		Drive Performance; Balance Resources; Develop Talent	Translate Strategy	Cultivate Internal Networks; Build Teams; Drive Innovation; Sponsor Ideas
C-3 to C-2	C-2	Develop the Capability to Establish New Ways of Working		
		Pursue Results; Coach and Develop; Empower Others	Maximise Opportunities and Facilitate Change	Promote Internal Networks; Facilitate Inclusivity, Innovation and Collaboration
C-4 to C-3	C-3	Develop the Capability to Enhance Systems and Processes		
		Solve Problems; Remove Barriers; Enhance Results	Implement Operational Level Change	Pursue Innovation; Promote Teamwork; Build Collaborative Partnerships

C: Board Level

C-1: Direct Reports to the Board

C-2: Middle Manager

C-3: Junior Managers

Appendix F: Broad Search of the Organisational Learning, Knowledge and Capabilities Literature

Discipline	Psychology and Organisational Development	Management Science	Sociology and Organisational Theory	Strategic Management	Production Management	Cultural Anthropology
Focus in OLKC literature	How individuals and groups learn within an organisational context.	How knowledge is managed and utilised within an organisation.	How social systems and structures affect organisational learning.	How knowledge and learning link to competitive advantage.	How knowledge and learning link to organisational efficiency	How culture impacts an organisation's ability to learn
Broad Search of the Literature	<ul style="list-style-type: none"> • Social learning theory, (Bandura, 1963) • Levels of learning (Bateson, 1973) • The cognitive process of learning (Dixon, 1994) (Nonaka, 1994) • Why learning doesn't occur (Argyris & Schon, 1992) • Informal learning (Brown & Duguid, 1991) 	<ul style="list-style-type: none"> • The gathering and processing of information (Huber, 1991) • Systems perspectives (Senge, 1990) • Exploration and exploitation (March, 1991) • Unlearning (Hedberg, 1981) • Organisational routines (Cyert & March, 1963) • Organisational Capabilities (Winter, 2003) • Complex Knowledge (Tsoukas, 2005) 	<ul style="list-style-type: none"> • The impact of organisational form on learning transfer (Hedberg, 1981) • The impact of structure and culture on learning processes (Shrivastava, 1983) • Organisational learning as a process (Crossan, 1999) • Social Capital (Nahapiet & Ghoshal, 1998) 	<ul style="list-style-type: none"> • Reciprocal nature of learning & strategy (Fiol & Lyles, 1985) • Development of core competencies (Andreu & Cibra, 1996) • Knowledge as a unique source of competitive advantage (Grant, 1992) • Dynamic Capabilities (Teece et al. 1997) • Absorptive Capacity Cohen & Levinthal (1990) 	<ul style="list-style-type: none"> • The learning curve (Buzzell & Gale, 1987) 	<ul style="list-style-type: none"> • Cross national studies of organisational learning (Nevis et al, 1995) • The importance of context on organisational learning (Brown & Duguid, 1991)
Relevance of the perspectives to CMD	How knowledge generated within a CMD setting can be transferred from individuals to the collective	How knowledge generated by CMD can be used for decision making within the firm	How politics, conflict and power impact the value of learning from CMD	How CMD contributes to the strategic processes within the firm	The connection between CMD and productivity improvements within the firm	National and organisational culture as contextual factors of CMD

Appendix G: Broad Search of the Learning and Development Literature

Discipline	Learning Transfer	Management and Leadership Development	Training Evaluation	Learning and Development Theory	Organisational Development
Focus within the Training and Development Literature	The factors that affect the transfer of learning to the work context	Approaches to the development of management and leadership skills	How to assess the impact of training and development activity	How individuals and groups learn	The alignment of strategy, people and processes
Broad Search of the Literature	<ul style="list-style-type: none"> • Learning Transfer, generalisation & maintenance (Baldwin and Ford, 1988) • Open versus closed skill transfer (Blume et al, 2010) • Learning transfer in autonomous workers (Yelon & Ford, 1999, Yelon, 2004) 	<ul style="list-style-type: none"> • Meta-review (Cullen & Turnbull, 2005) • Types of development (Day, 2001) • 70 20 10 (Lombardo & Eichinger, 1996) • Leadership as Practice development (Denyer and James, working paper) • Learning on demand (Armstrong & Sadler-Smith, 2008) • Difference between training, education, development and learning (Masdeh, 2003) 	<ul style="list-style-type: none"> • ROI (Philips, 1996) • Levels of evaluation (Kirkpatrick, 1994) • ROI (Guerci and Vinante, 2010) • Critique of Kirkpatrick (Giangreco, et al., 2008) • Effectiveness of training (Edens and Bell, 2003) 	<ul style="list-style-type: none"> • Andragogy (Knowles, 1980) • Experiential learning (Dewey 1938, Rogers & Freiberg 1969, Kolb 1973) • Social Learning Theory (Bandura 1977) • Communities of practice (Lave & Wenger 1998) 	<ul style="list-style-type: none"> • Management Training and Organisational Development (Berger, 1985) • Management Development as Organisational Development (Mintzberg, 2011) • Organisational Change and Development (Brown, 2012)
Relevance of the perspectives to CMD	Contextual factors that impact the transfer of learning from the CMD setting to the workplace	Types of intervention and their efficacy within specific contexts	Identification of the outcomes from CMD	The identification of potential mechanisms	Interventions that focus on transformational organisational change

Appendix H – Alignment of Project One Components with Project Two Mechanisms

Sense Making			
Description of constructs found in the literature	Process by which the construct is acquired	Impact within the practice context	Authors
Systems Thinking: Defining the rules of the game, defining context, boundaries, input, relationships, environment, expectations of roles, responsibilities	Senior Management input; knowledge sharing,	Guides behaviour; provides a foundation for the development of knowledge and skills, encourages the integration of actions and collaboration across silos.	(Burke and Collins, 2004; Finch-Lees, Mabey and Liefoghe, 2005; Kamoche, 2000; Keating, Kauffmann and Dryer, 2001; Simmonds and Tsui, 2010; Watkins, Lysø and deMarrais, 2011)
Strategic Analysis: Logic, diagnostic and judgment	Lectures, Story-telling: The logic between alternative approaches Application through Project work	Informs decision making, problem setting and solving	(Carr and Lapp, 2011; Keating, Kauffmann and Dryer, 2001; Watkins, Lysø and deMarrais, 2011)
Self-Awareness: Shared or personal vision of self, including competence, personality and behavioural impact.	Feedback; 360, personality inventories; assessment; experiential sessions; identification of assumptions and biases; mirroring; comparison with others	Motivation for continued personal development, creates dissatisfaction and impetus for change, or confidence for action/behaviour modification. Facilitates reflection and learning for those appraising such as supervisors, peers and subordinates. Promotes performance dialogue across levels.	(Bailey and Fletcher, 2002; Berger, 1985; Burnett and James, 1993; Cullens and Waters, 2012; Currie and Darby, 1995; Espedal, 2004; Joo, 2005; McCarthy and Garavan, 2007; Richards and Howard, 2004; Thach, 2002; Watkins, Lysø and deMarrais, 2011)
Breadth of Vision: The approaches others have taken, concepts, ideas, declarative knowledge, generic, the visibility of multiple and divergent perspectives of the system, new lenses, principles, facts, frames, scripts	Story-telling, case studies, training - managerial tool box, senior management input, lectures, experiential learning	Extends potential action/response repertoires, develops empathy and diversity, supports innovation and problem solving, evaluation and comparison. Promotes future learning	(Anderson, 2010; Berg and Karlsen, 2012; Black and Earnest, 2009; Burke and Collins, 2004; Burnett and James, 1993; Carr and Lapp, 2011; Cullens and Waters, 2012; Currie and Darby, 1995; Espedal, 2004; Espey and Batchelor, 1987; Kamoche, 2000; Keating, Kauffmann and Dryer, 2001; Militello and Benham, 2010; Simmonds and Tsui, 2010; Watkins, Lysø and deMarrais, 2011)

Schemas and Frameworks: The creation of shared meaning, schemata frameworks, Understanding the organisation and roles within it, sense-making	Storytelling, reflect on organisational experiences, non-hierarchical discussion, co-reflective practice, opens up sense making to critique, learning about each-others roles – similarities and differences	Shared sense of understanding amongst groups. “Not so much the space between peoples’ ears but the space between peoples' noses” (Sigaloff, 2007), Move to problem setting rather than problem solving; the identification of new questions to be asked.	(Bilhuber Galli and Müller-Stewens, 2012; Buckley and Monks, 2008; Burnett and James, 1993; Carr and Lapp, 2011; Espedal, 2004; Kawalek, 2006; Sigaloff, Nabben and Bergsma, 2007; Watkins, Lysø and deMarrais, 2011)
Learning and Development: The purpose and importance of development; understanding the programme logic; understanding how skills contribute to performance; Identification of relevance of new knowledge and skills to work context and practicality of application.	Alignment with promotion, reinforcement through PDR, reflection on learning, orientation and reward systems, Opportunities for practice, stimulus cuing. Place in a position where there is a need to change; Senior Management role models	Generates the motivation for ongoing personal development and a commitment to use knowledge and skills developed by the intervention	(Anderson, 2010; Ardts, van der Velde and Maurer, 2010; Berger, 1989; Black and Earnest, 2009; Bramley, 1999; Buckley and Monks, 2008; Burke and Collins, 2004; Collins and Holton, 2004; Kamoche, 2000; Newstrom, 1985; Schein, 1961; Watkins, Lysø and deMarrais, 2011)

Dialogue			
Description of constructs found in the literature	Process by which the construct is acquired	Impact within the practice context	Authors
Language Development: Vocabulary, constructs and metaphors, articulation of designs for action (social constructionist)	Lectures, group work, retreats and exploration, dialogue	Initiates dialogue and understanding. The creation of identity, reframing familiar problems; conceptualize ideas and information in innovative ways, creates a bond and the ability to communicate ideas, thoughts and information to others in a coherent and integrated way. Promotes the ability to instruct others, aligns different perspectives promotes effective communication	(Anderson, 2010; Brodie, 1983; Buckley and Monks, 2008; Finch-Lees, Mabey and Liefoghe, 2005; Kawalek, 2006; Richards and Howard, 2004; Watkins, Lysø and deMarrais, 2011)
Knowledge Sharing: Knowledge sharing, Bernstein's horizontal discourse (Hordern)	Storytelling: The development of conversations, dialogue and relationships; ALS, the combination of repertoires, workshops, case studies and reflection	Innovation, future learning, political behaviours, new actionable knowledge that changes behaviour and roles, new ideas	(Berg and Karlsen, 2012; Carr and Lapp, 2011; Cullens and Waters, 2012; Espedal, 2004; Hordern, 2012; Kamoche, 2000)

Alignment			
Description of constructs found in the literature	Process by which the construct is acquired	Impact within the practice context	Authors
Culture: Shared attitudes, beliefs, values, assumptions, opinions and judgments, social awareness, organisational ideology, cultural norms	Co-worker approval, identification, rewarding effects, critical opinion sharing, defining the person through others	Ethical behaviour, relationships, organisational culture, common identity, common direction for action, reduce communication and coordination problems. Orientation, Works against nurturing diversity, variety as organisational strength, innovation and adaptation, change in language, citizenship, commitment to organisation	(Ardts, van der Velde and Maurer, 2010; Bilhuber Galli and Müller-Stewens, 2012; Brodie, 1983; Espedal, 2004; Finch-Lees, Mabey and Liefoghe, 2005; Kamoche, 2000; McCarthy and Garavan, 2007; Schein, 1961)
Emotional Intelligence: Understanding personal impact, self-regulation	Reflection; coaching, counselling; action learning and simulations; story telling	Reduces destructive behaviour. Suppression of urges. Obeying of societal rules of conduct, the development of moral virtues, working climate and atmosphere	(Carr and Lapp, 2011; Cullens and Waters, 2012; Espedal, 2004; Finch-Lees, Mabey and Liefoghe, 2005; Joo, 2005)
Strategic Knowledge: Shared vision of organisation, mission, core values, practices and processes	Critical review of performance away from day to day; dialogue; senior management input. Action Learning; Lectures	Aligns interests; consensus and vision; reinforces strategies and organisational objectives	(Abrell et al., 2011; Berger, 1989; Bilhuber Galli and Müller-Stewens, 2012; Kamoche, 2000; Richards and Howard, 2004; Simmonds and Tsui, 2010; Watkins, Lysø and deMarrais, 2011)
Organisational Requirements: Attributes, competencies, awareness of required behaviours, cultural knowledge	The codification of required actions, competencies and behaviours; coaching: senior manager input; lectures	Alignment with collective behavioural goals, benchmarking, dialogue about leadership, reinforcement of desired behaviours	(Bramley, 1999; Cullens and Waters, 2012; Finch-Lees, Mabey and Liefoghe, 2005; Kamoche, 2000; Richards and Howard, 2004; Simmonds and Tsui, 2010; Thach, 2002)
Integration: Collaboration, cooperation, achieving the requisite balance of unity and diversity, meshing of skills	The integration of skills across business units: ALS, business projects	The development of core competence, Intangible assets and superior client value, realisation of synergy, teamwork, strategic assets, hard to duplicate competitive advantage, global capability	(Berger and Luckmann, 1966; Bilhuber Galli and Müller-Stewens, 2012; Currie and Darby, 1995; Espedal, 2004; Friedman, Lipshitz and Overmeer, 2001; Hordern, 2012; Watkins, Lysø and deMarrais, 2011)

Engagement			
Description of constructs found in the literature	Process by which the construct is acquired	Impact within the practice context	Authors
Attitudinal Change: Commitment, self-purpose, loyalty, Satisfaction, self-esteem, cynicism, enriching the inner psyche, positivism	Unfreezing, changing and refreezing, push and pull motivators	Motivation to change; personal power; overcome deadlock; satisfaction of having an ALS project implemented	(Ardts, van der Velde and Maurer, 2010; Black and Earnest, 2009; Espedal, 2004; Espey and Batchelor, 1987; Maurer and Palmer, 1999; McCarthy and Garavan, 2007; Richards and Howard, 2004; Schein, 1961; Simmonds and Tsui, 2010; Watkins, Lysø and deMarrais, 2011)
Strategic Knowledge: Shared vision of organisation, mission, core values, practices and processes	Critical review of performance away from day to day; dialogue; senior management input. Action Learning; Lectures	Aligns interests; consensus and vision; reinforces strategies and organisational objectives	(Abrell et al., 2011; Berger, 1989; Bilhuber Galli and Müller-Stewens, 2012; Kamoche, 2000; Richards and Howard, 2004; Simmonds and Tsui, 2010; Watkins, Lysø and deMarrais, 2011)
Self-Efficacy: perceived control, Locus of control, confidence	Coaching; peer support; feedback	Change in behaviour; self-confidence, confidence to change	(Ardts, van der Velde and Maurer, 2010; Berg and Karlsen, 2012; Black and Earnest, 2009; Buckley and Monks, 2008; Cullens and Waters, 2012; Joo, 2005; Maurer and Palmer, 1999; McCarthy and Garavan, 2007)
Focus and Timescales: Breadth of Vision: short term verses long term thinking; orientation – task verses people, big picture	Workshops; Lectures; Discussion	Changes focus for action and prioritisation	(Berg and Karlsen, 2012; Black and Earnest, 2009; Buckley and Monks, 2008; Espey and Batchelor, 1987)

Skills Development			
Description of constructs found in the literature	Process by which the construct is acquired	Impact within the practice context	Authors
Procedural Knowledge: Decision making, If...then logic, the steps involved, presented in models, cognitive strategies, applicability, limitations and appropriateness of methods	Workshops; Lectures; Action Learning	The matching of style to situation; short term objectives; specific competence relating to the firm's domain of operation	(Burke and Collins, 2004; Currie and Darby, 1995; Keating, Kauffmann and Dryer, 2001)
Managerial Toolbox: Problem solving, conflict resolution, practical skills and strategies, innovative approaches to management, organisational skills, process skills, procedural knowledge – how to perform something, competences, analysis tools	Appreciative inquiry; simulation; improvisation; discourse, self-development, Action Learning; workshops	Solutions to challenges; controlled change within the organization; the development of managers as change agents; involvement in change processes	(Berg and Karlsen, 2012; Black and Earnest, 2009; Bramley, 1999; Brodie, 1983; Buckley and Monks, 2008; Burke and Collins, 2004; Cullens and Waters, 2012; Currie and Darby, 1995; Kawalek, 2006; Richards and Howard, 2004; Simmonds and Tsui, 2010; Watkins, Lysø and deMarrais, 2011)
Strategic Toolbox: Logic, diagnostic and judgment	Lectures, Story-telling: The logic between alternative approaches	Informs decision making, problem setting and solving	(Carr and Lapp, 2011; Keating, Kauffmann and Dryer, 2001; Watkins, Lysø and deMarrais, 2011)
Leadership Skills: Interpersonal skills; consultative skills; listening skills; transformational leadership	Feedback; coaching; role plays; discussion; experiential learning; coaching; leadership tool; projects	Organisational citizenship of followers; productivity, performance and employee satisfaction; involvement; collaboration; coalitions for change	(Abrell et al., 2011; Black and Earnest, 2009; Bramley, 1999; Brodie, 1983; Militello and Benham, 2010)

Socialisation			
Description of constructs found in the literature	Process by which the construct is acquired	Impact within the practice context	Authors
Social Capital: Friendships; Emotional ties with others; Us or Them splitting, the exclusion of social groups; categorization and affiliation; hierarchical location; participation; membership of an 'elite'; status of attending, shared identity	Collusion and identification with the stories being told by others; peer pressure; social pressure; role models; fulfilling others expectations	The development of behavioural norms and a sense of belonging, the transmission of culture; conformity; reinforcement and consolidation, coalitions, relationships, community involvement, staff retention, resentment amongst those who do not attend, teamwork, group alignment	(Abrell et al., 2011; Berger and Luckmann, 1966; Black and Earnest, 2009; Brodie, 1983; Carr and Lapp), 2011; Currie and Darby, 1995; Espedal, 2004; Finch-Lees, Mabey and Liefoghe, 2005; Kamoche, 2000; Maurer and Palmer, 1999; Militello and Benham, 2010; Newstrom, 1986; Simmonds and Tsui, 2010; Watkins, Lysø and deMarrais, 2011)
Network Development: Exposure; identification; recognition; visibility; navigation within networks	Networking, opportunities, who you meet	Relationships with senior managers and peers; career progression; identification of top performers; identification of performance issues; help; reputation; conscious development of talent; tap refine and hone; increased organisational influence	(Black and Earnest, 2009; Brodie, 1983; Espedal, 2004; Kamoche, 2000; Simmonds and Tsui, 2010; Watkins, Lysø and deMarrais, 2011)

Appendix I – Evidence of Pragmatic Validity

Quotations from Programme Director Interviews
<p><i>“Yes! I know why we are where we are now...It’s almost a cultural diagnostic this tool, as well as a review tool...I like it; I like it because when I have a conundrum (supposedly one of my real talents is to understand what is really going on) and it foils me, why we don’t get enough behaviour change foils me, but even just talking to you, it’s because of the role modelling, it’s the leadership”</i></p>
<p><i>“I found the discussion very useful – it challenged my own paradigms at a number of levels, resonated big time with others and I think you have developed a model with great utility for our work with clients”</i></p>
<p><i>“I would say that this is usually seen as not controllable, right, (the context) because we don’t usually look at it in a systemic way, so therefore we ignore it and we just hope for the best”</i></p>
<p><i>“Funny enough whenever we talk about impact or at least when I talk about impact, whenever I do, it’s trying to focus on the positive impact but I can’t recall, at least I haven’t done it, is have there been any negative side effects? has there been anything, you know has this programme created conflict for you in your workplace etc? it would actually be quite interesting to find out”</i></p>
<p><i>In the XX course for Future Women Leaders I used your breakdown of roles in transition or not as part of a way of explaining why we needed to have certain dialogues and action learning as part of the development process. I also used your breakdown of operational, transformational and adaptive to talk about the context in which XX were operating and the need to move the dialogue forward to challenge the way of current thinking.</i></p>
<p><i>“Yes I think you brought it to life by saying that there is a risk to use a pipeline community for changes in practice. It’s something that we do all the time, very innocently sometimes through action learning sets, because that’s what the client asked for and you say “well how can you go wrong there?”. I think I’ve fallen through that trap as well, but I think your explanation hammered it home to me that there is a real danger, and I think there’s more of those dangers hidden in there that I probably have to think a bit as well, that I don’t want to fall into those. But I think that’s a clear one because I’ve seen that I’ve made that mistake now probably over time I will see other mistakes as well and say oh yeah but I think that one just hurts a bit so that’s something that feels... it resonates”</i></p>
Quotations from Other Sources
<p><i>When undertaking a 3- day period of diagnostic interviews and meetings in Bahrain earlier this week, we made use of your research to establish and clarify that the weighting of our programme would be on performance within an existing role (and not transition or transformational change). Knowing this and having this clarity will now help us shape the overall programme architecture, learning methods and content so that we have the best possible chance of creating an impactful programme. (Source: Programme Director following their personal use of the model with</i></p>

a client)

I found our discussion really helpful and extremely interesting. As you were talking about your research and especially the model it made me think about my practice and the way the University works; where there may be alignment and why sometimes not. It also helped me to make sense of some things that have happened here over the 9 years I have worked here.

You were really clear in your explanation bringing it alive for me. You helped me to bring together a number of different strands in my knowledge and understanding – helping me to make sense of it all.

I could definitely see how I might be able to use the model you showed me for organisational development and learning and to guide my L&D strategy. So useful. (Source: L&D Manager, Cranfield University)

Appendix J: Quality Appraisal Template Case Studies

Case Studies	Appraisal of intervention description and context	1	2	3	4	5
1	Does the paper provide details of the intervention? (what the intervention consists of, where, how, how often and for how long?)					
2	Does the paper provide details of the resources involved including: time, money, people, information, technology, and other assets needed to conduct the intervention?)					
3	Does the paper provide details about the tutors including descriptive data, and where appropriate to the intervention, their level of skill and experience?					
4	Does the paper provide details about the participants, including descriptive data and where appropriate to the intervention, their level of skill and experience?					
5	Does the paper provide details about the context in which the intervention occurred? (organisational, cultural)					
6	Does the paper provide details about the stage of development of the intervention? (whether the intervention had been delivered before within or outside the organisational context)					
7	Does the paper provide details about any participants who dropped out of the intervention?					
8	Does the paper provide details of any negative or adverse effects that were observed or reported by researchers or participants?					
9	Does the paper provide details about the logic model? How the intervention is theorized to bring about change in the desired outcome – that is, by what steps, or by what theorized causal pathway?					
Appraisal of methodology						
10	Is the methodology for the collection and analysis of data transparent?					
11	Are the measures used in the study the most relevant for answering the research question?					
12	Does the study have internal validity? (is it free from methodological bias?)					
13	Does the study have external validity? (can the results be generalized to other settings?)					
14	Does the study consider the ethical implications of the intervention they evaluate?					
Appraisal of results						
15	Does the paper present data to validate results?					
16	Is the methodology for analysing the data described?					
Findings						
17	How clear are the links between data, interpretation and conclusions?					
18	Does the paper present alternative interpretations of the data?					
19	How credible are the findings?					
20	Does the paper connect findings with other research?					

Appendix K: Quality Appraisal Template Conceptual Papers

Conceptual Papers		1	2	3	4	5
1	Is the need for (or purpose of) theory development well established?					
2	Is previous theory summarised?					
3	Is the author's contribution to theory significant? Number of citations					
4	Is it well organised and clear?					
5	Is it linked back to the literature? Number of references					
Journal Rating						
Citations						
Number of references						

Appendix L: Quality Table for Case Studies

Reference	Intervention			Context			Outcome		Mechanism
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	
Arbre et al (2011)	5	5	3	3	3	N	2	N	3
Adams & Waddle (2002)	2	2	2	2	2	Y	1	N	2
Anderson (2010)	2	1	1	2	2	N	1	Y	4
Artise (1984)	4	2	1	1	2	N	1	N	1
Ardts et al (2010)	1	1	1	3	1	N	1	N	3
Avolio et al (2010)	1	5	1	1	1	N	1	Y	1
Bailey & Fletcher (2002)	3	2	1	2	3	Y	1	N	3
Baron et al (2011)	3	1	3	2	2	N	2	N	3
Baruch & Lessem (1995)	1	2	1	2	2	N	1	N	2
Bass & Avolio (1992)	5	3	1	1	1	N	1	N	1
Berg & Karlsen (2012)	4	2	3	3	1	N	1	N	3
Berger (1985)	5	3	2	3	3	Y	1	N	3
Berthoin et al (2001)	5	3	1	4	2	N	1	N	1
Bilhuber et al (2012)	2	1	1	3	5	N	1	N	5
Black & Earnest (2009)	1	1	1	1	1	N	1	Y	4
Braddick (1990)	2	1	1	2	4	N	1	N	1
Bramley (1999)	3	1	1	3	3	N	1	N	3
Brodie (1983)	3	1	1	2	4	Y	1	Y	3
Brown (2005)	2	1	1	2	4	N	1	N	2
Brown & May (2012)	5	4	1	4	5	Y	3	N	4
Burke & Collins (2005)	3	2	3	2	2	N	1	N	5
Burnett & James (1993)	3	3	2	3	3	Y	1	N	3
Cannon (1995)	4	4	2	2	4	Y	1	N	1
Cherniss et al (2010)	4	3	2	3	4	Y	3	N	3
Chochoard & Davoine (2011)	1	1	1	1	2	N	1	N	1
Ciporen (2010)	1	1	1	1	1	N	3	N	1
Cullens & Waters (2012)	3	3	2	1	4	Y	1	N	3
Currie (1995)	3	2	1	2	3	Y	3	Y	3
Edwards & Turnbull (2013)	2	1	1	2	3	N	1	N	1
Espedal (2004)	2	1	1	2	2	N	1	N	4
Espey & Batchelor (1987)	3	2	1	2	4	Y	1	Y	3
Finch-Lees et al (2005)	4	3	1	3	5	Y	1	Y	3
Galli & Muller (2012)	3	2	1	3	5	N	1	N	4
Gibb (2004)	3	2	2	2	3	Y	1	N	4
Gilpin-Jackson & Bushe (2007)	3	3	1	2	3	Y	2	Y	1
Harris & Cole (2007)	2	1	1	2	2	Y	1	N	1
Horan (2007)	3	2	2	2	3	Y	1	Y	2
Hordern (2012)	3	3	1	1	2	Y	1	Y	3
Humphreys et al (1995)	4	4	2	3	5	Y	1	Y	2
Ibbotson & Newell (1998)	2	1	1	2	1	N	1	N	1
Kawalek (2006)	3	2	1	2	2	Y	3	N	4
Keating et al (2001)	3	2	2	4	3	Y	1	N	4
Keithley & Redman (2001)	3	3	2	2	5	Y	1	Y	1
Lu & Bett (2010)	2	1	1	2	5	Y	1	N	2
Lynch et al (2006)	2	1	1	2	3	Y	1	N	1
McCarthy & Garavan (2007)	3	3	1	5	4	Y	2	Y	3
Mitello & Benham (2010)	2	1	1	2	3	Y	2	N	3
Richards & Howard (2004)	3	1	1	1	3	Y	1	N	4
Seifert & Yuki (2010)	4	3	2	3	2	N	2	N	1
Sigaloff et al (2007)	3	3	2	2	3	Y	1	Y	3
Simmonds & Tsui (2010)	4	4	3	3	4	Y	1	N	3
Smith (1988)	3	3	3	2	2	Y	1	N	1
Smith et al (1986)	5	3	2	2	4	Y	1	N	2
Thach (2002)	4	4	3	2	2	Y	1	N	3
Thomas & Carnall (2008)	3	2	2	2	4	Y	1	N	2
Thorsell (2007)	5	3	3	3	4	Y	1	N	2
Ulrich (1989)	2	1	1	2	3	Y	1	N	2
Vicere (1990)	2	1	2	3	4	Y	1	N	2
Watkins et al (2011)	3	2	1	2	3	Y	1	N	4
Percentage of Papers with required data	66.10%	38.98%	13.56%	32.20%	62.71%	61.02%	8.47%	23.73%	54.24%

Appendix M: Quality Table for Conceptual Papers

Reference	Purpose	Citations	References	Q1	Q2	Q3	Q4	Q5
Alban-Metcalfe (1983)	Development Needs	3	32	2	3	2	2	2
Baek-Kyoo (2005)	Mechanisms	115	60	4	5	5	5	3
Bartoli & Zhang (2007)	Development Needs	24	83	5	5	3	4	5
Boarner (1996)	Mechanisms	0	5	5	1	1	3	1
Brown (2003)	Development Needs	17	50	4	5	2	5	3
Brown & McCracken (2010)	Impact Improvement	0	65	5	5	1	5	4
Burgoyne & Stuart (1991)	Theory of Learning	15	17	5	1	2	3	1
Carr & Ann (2011)	Mechanisms	0	38	3	3	1	3	2
Carrick & (1999)	Theory of Learning	0	74	2	3	1	3	4
Clement (1981)	Methods of Impact Assessment	0	10	5	3	1	3	1
Collin (1989)	Theory of Learning	60	30	5	3	4	3	2
Collins & Holton (2004)	Mechanisms	174	71	5	5	5	5	4
Culbertson & Owen (2012)	Impact Improvement	0	11	5	1	1	3	1
Cunha & (2004)	Development Needs	13	67	5	4	2	4	4
Dalakoura (2010)	Impact Improvement	15	82	5	4	2	3	5
Dominick & (2010)	Development Needs	5	23	3	2	2	2	2
Doyle (2000)	Impact Improvement	32	95	5	4	3	4	5
Hayward (2011)	Methods of Impact Assessment	2	5	4	1	2	3	1
Kennedy (2013)	Methods of Impact Assessment	0	49	5	3	-	3	3
Lewis & Fagenson (1995)	Development Needs	33	57	2	3	3	4	3
Mullins & Aldrich (1988)	Mechanisms	2	32	1	2	1	1	2
Newstrom (1986)	Mechanisms	85	21	5	3	4	1	2
Ohara (1996)	Mechanisms	20	4	4	1	2	3	1
Oliver & Brittain (2001)	Development Needs	7	26	5	3	2	3	2
Overmeer (1997)	Mechanisms	13	44	5	3	2	2	3
Rausch & (2001)	Development Needs	29	16	5	2	3	3	1
Ray & Goppelt (2011)	Methods of Impact Assessment	0	39	4	3	1	4	2
Schein (1961)	Mechanisms	193	9	5	2	5	3	1
Storey (1990)	Development Needs	23	87	3	5	3	4	5
Teare & Pantini (2002)	Mechanisms	7	11	3	2	2	3	1
Thorpe (1990)	Development Needs	30	46	5	4	3	4	3

Appendix N: Description of Papers Included in the Systematic Review

Reference		Intervention			Outcome			
Author	Year	Purpose	Method	Contol		Individual	Group	Organisation
				HC	LC			
Abrell, et al	2011	CM	Competency,Training,Coaching	X		Performance	EmployeeAttitudes	
Anderson	2010	MD	Training		X	Attitude,Behaviour		
Ardts et al	2010	MD	(notspecified)		X	Career		
Avolio et al	2010	MD	Training,Introspection,B60,Exercises	X		LeadershipPerformance	Emulation	
Bailey&Fletcher	2002	MD	Competency	X		Performance		
Baron et al	2011	MD	Coaching	X		Selfefficacy,Softskills		
Berg&Karlsen	2012	MD	Coaching,Training	X	X	Performance	Performance	
Berger	1985	CM	ALS		X	Performance	Performance,Collaboration	
Berthna et al	2001	MD	360,DevelopmentCentre,Feedback,Planning	X		Performance		
Bilhuber et al	2012	CM	Competency,Training,Coaching,ALS		X		Innovation,Collaboration	Commercial
Black&Earnest	2009	MD	N/A		X	Confidence,Behaviour,Performance	Relationships,Alignment,CulturalAwareness	
Boaden	2006	CM	Teaching,Facilitation>ActionLearning	X		LeadershipPerformance,Career	RaisedProfileofHRfunction	
Bramley	1999	CM	Competency,Training	X		Performance	Emulation,EmployeeAttitudes	Process,Commercial
Brodie	1983	OP	Training	X		(notdefined)		
Brown&May	2012	OP	Competency,Training,Planning	X		Behavioural	EmployeeAttitudes	Productivity
Buckley&Monks	2007	MD	Training,ALS,B		X	Selfinsight	Communityofpractice,Collaboration	Consultancy,ProblemSolving
Burke&Collins	2005	MD	Procedural,Declarative	X		(notdefined)		
Burnett&James	1993	OP	Selfawareness,Skills	X		Commitment	Collaboration	
Caliguri&Farique	2009	MD	(notspecified)		X	GlobalLeadershipPerformance		
Carden&Callahan	2007	MD	Teaching,Coaching>ActionPlanning,Reflection	X		Identity,Beliefs,Values,Feelings		
Cherniss et al	2010	MD	Coaching>ActionPlanning		X	EmotionalandSocialCompetence	-	-
Cullens&Waters	2012	CM	Training,ALS,Coaching		X	Career,Behavioural,Developmental	EmployeeAttitudes	Process,Commercial,Strategic
Currie	1995	MD	Competency,INVQ's	X		Performance,Career	Dialogue	Commercial,Strategic
Dexter	2007	MD	Facilitation,Coaching>ActionLearning,B60	X		ImprovedSelfmanagement	Teamwork,Networking,Collaboration	Process,ProjectManagement
Espedal	2004	MD	Training,SelfAwareness,Networking	X		Performance	Collaboration,Process	-
Espey&Batchelor	1987	MD	MBA,ALS		X	Career,Behavioural,Performance	Emulation	Planning,ProblemSolving
Finch-Lees et al	2005	MD	Competency	X		Focus	Dialogue	Alignment
Gentry&Martineau	2010	OP	(notspecified)	X		-	Vision,TeamPerformance,Attitudes	-
Gibb	2004	CM	Simulation		X	(notdefined)	-	-
Glastra&Meerman	2012	MD	Teaching>ActionLearning,Coaching	X		Career	EmotionalSecurity	Succession
Hamlin&Stewart	1990	MD	(notspecified)		X	(notdefined)	-	-
Hordern	2012	MD	Blended		X	Focus	Collaboration	-
Hothor&Dowling	2010	MD	Teaching>ActionLearning,Coaching,B60		X	Reflection,Analysis,Values	-	-
Jackson et al	2003	MD	N/A	X		(notdefined)	-	-
Kamoche	2000	MD	Training		X	Career	Collaboration	Culture,Process,Strategic
Kawalek	2006	CM	Blended,ALS	X		ProblemSolving	-	Process,Commercial,Strategic
Keating et al	2001	OP	ProblemSolving		X	ProblemSolving	Collaboration	-
Ladyshewsky	2007	MD	Teaching>ActionLearning,Coaching,Planning,B60	X		Skills	-	-
Maurer&Palmer	1999	MD	Competency	X		LeadershipandManagementSkills	-	-
McCarthy&Garavan	2007	MD	Competency	X		(notdefined)	-	-
Mitello&Benham	2010	CM	Training,Coaching,ALS		X	Beliefs	Relationships,Trust	-
Seifert&Yuki	2010	MD	Coaching,B60>ActionPlanning	X		InfluencingSkills	Collaboration	-
Seppanen-Jarvela	2005	OD	Facilitation		X	Focus	Communityofpractice,Collaboration,SharedMeaning	-
Sigaloff et al	2007	CM	Discourse,ProblemSolving,Mentoring		X	ProblemSolving,Beliefs,Insight	Collaboration,Confidence,Momentum	-
Simmonds&Tsui	2010	OP	Competency,ALS,Training	X		Commitment,Development,Planning	Performance,Emulation,Collaboration	
Solansky	2010	MD	Coaching,B60	X		Selfawareness	-	-
Thach	2002	OP	Competency,Coaching	X		Performance		
Thorne&Wright	2005	OP	ActionLearning,B		X	StrategicThinking,PresentationSkills	Networking	Planning,Culture
Watkins et al	2011	CM	Competency,ALS,Training	X		Career,Language,Insight,Skills	Collaboration,ProblemSolving,Emulation	Collaboration,Talent

CM = Change Management

OP = Operational Performance

MD = Management Development

OD = Organisational Development

HC = High Control

LC = Low Control

Appendix O: Constructs from the CMD Literature

Description of constructs found in the literature	Process by which the construct is acquired	Impact within the practice context	Authors
SELF AWARENESS: Shared or personal vision of self including competence, personality and behavioural impact.	Feedback; 360, personality inventories; assessment; experiential sessions; identification of assumptions and biases; mirroring; comparison with others	Motivation for continued personal development, creates dissatisfaction and impetus for change, or confidence for action/behaviour modification. Facilitates reflection and learning for those appraising such as supervisors, peers and subordinates. Promotes performance dialogue across levels.	(Baek-Kyoo Joo, 2005; Bailey and Fletcher, 2002; Berger, 1985; Burnett and James, 1993; Cullens and Waters, 2012; Espedal, 2004; Richards and Howard, 2004; Thach, 2002; Currie and Darby, 1995; McCarthy and Garavan, 2007; Watkins et al., 2011)
BREADTH OF VISION AND PERSPECTIVE: The approaches others have taken, concepts, ideas, declarative knowledge, generic, the visibility of multiple and divergent perspectives of the system, new lenses, principles, facts, frames, scripts	Storytelling, case studies, training - managerial tool box, senior management input, lectures	Extends potential action/response repertoires, develops empathy and diversity, supports innovation and problem solving, evaluation and comparison. Promotes future learning	(Carr and Cheryl Ann (formerly Lapp), 2011; Berg and Karlsen, 2012; Burnett and James, 1993; Espedal, 2004; Espey and Batchelor, 1987; Simmonds and Tsui, 2010; Black and Earnest, 2009; Burke and Collins, 2005; Keating et al., 2001; Kamoche, 2000; Militello and Benham, 2010; Watkins et al., 2011; Cullens and Waters, 2012; Anderson, 2010a; Currie and Darby, 1995)
ORGANISATIONAL REQUIREMENTS: Attributes, competencies, awareness of required behaviours, cultural knowledge	The codification of required actions, competencies and behaviours; coaching: senior manager input; lectures	Alignment with collective behavioural goals, benchmarking, dialogue about leadership, reinforcement of desired behaviours	(Cullens and Waters, 2012; Finch-Lees et al., 2005; Richards and Howard, 2004; Simmonds and Tsui, 2010; Thach, 2002; Bramley, 1999; Kamoche, 2000)
STRATEGIC KNOWLEDGE: Shared vision of organisation, mission, core values, practices and processes	Critical review of performance away from day to day; dialogue; senior management input. Action Learning; Lectures	Aligns interests; consensus and vision; reinforces strategies and organisational objectives	(Abrell et al., 2011; Berger, 1989; Bilhuber Galli and Müller-Stewens, 2012a; Richards and Howard, 2004; Simmonds and Tsui, 2010; Kamoche, 2000; Watkins et al., 2011)
LANGUAGE DEVELOPMENT:	Lectures, group work, retreats	Initiates dialogue, and understanding. The	(Finch-Lees et al., 2005; Kawalek, 2006;

Vocabulary, constructs and metaphors, articulation of designs for action (social constructionist)	and exploration, dialogue	creation of identity, reframing familiar problems; conceptualize ideas and information in innovative ways, creates a bond and the ability to communicate ideas, thoughts and information to others in a coherent and integrated way. Promotes the ability to instruct others, aligns different perspectives promotes effective communication	Richards and Howard, 2004; Anderson, 2010b; Brodie, 1983; Buckley and Monks, 2008; Watkins et al., 2011)
SYSTEMS THINKING: Defining the rules of the game, defining context, boundaries, input, relationships, environment, expectations of roles, responsibilities	Senior Management input; knowledge sharing, 360 feedback	Guides behaviour; provides a foundation for the development of knowledge and skills, encourages the integration of actions and collaboration across silos.	(Finch-Lees et al., 2005; Simmonds and Tsui, 2010; Burke and Collins, 2005; Keating et al., 2001; Kamoche, 2000; Watkins et al., 2011)
EMOTIONAL INTELLIGENCE: Understanding personal impact, self-regulation	Reflection; coaching, counselling; action learning and simulations; story telling	Reduces destructive behaviour. Suppression of urges. Obeying of societal rules of conduct, the development of moral virtues, working climate and atmosphere	(Baek-Kyoo Joo, 2005; Cullens and Waters, 2012; Carr and Cheryl Ann (formerly Lapp), 2011; Espedal, 2004; Finch-Lees et al., 2005)
STRATEGIC ANALYSIS: Logic, diagnostic and judgment	Lectures, Storytelling: The logic between alternative approaches	Informs decision making, problem setting and solving	(Carr and Cheryl Ann (formerly Lapp), 2011; Keating et al., 2001; Watkins et al., 2011)
SOCIAL LEARNING: The creation of shared meaning, schemata frameworks, Understanding the organisation and roles within it, sense-making	Storytelling, reflect on organisational experiences, non-hierarchical discussion, co-reflective practice, opens up sense making to critique, learning about each other's roles – similarities and differences	Shared sense of understanding amongst groups. "Not so much the space between peoples' ears but the space between peoples' noses" (Sigaloff, 2007), Move to problem setting rather than problem solving; the identification of new questions to be asked.	(Carr and Cheryl Ann (formerly Lapp), 2011; Bilhuber Galli and Müller-Stewens, 2012a; Buckley and Monks, 2008; Watkins et al., 2011; Burnett and James, 1993; Espedal, 2004; Kawalek, 2006; Sigaloff et al., 2007)
COMMITMENT TO DEVELOPMENT: The purpose and importance of development; understanding the programme logic; understanding how skills contribute to performance; Identification of relevance of new knowledge and skills to work context and	Alignment with promotion, reinforcement through PDR, reflection on learning, orientation and reward systems, Opportunities for practice, stimulus cuing. Place in a position where there is a need to change; Senior Management role	Generates the motivation for ongoing personal development and a commitment to use knowledge and skills developed by the intervention	(Collins and Holton, 2004; Newstrom, 1986; Ards et al., 2010; Berger, 1989; Anderson, 2010b; Kamoche, 2000; Burke and Collins, 2005; Watkins et al., 2011; Schein, 1961; Black and Earnest, 2009; Buckley and Monks, 2008; Bramley, 1999)

practicality of application.	models		
PROCEDURAL KNOWLEDGE: Decision making, If...then logic, the steps involved, presented in models, cognitive strategies, applicability, limitations and appropriateness of methods	Workshops; Lectures; Action Learning	The matching of style to situation, short term objectives, specific competence relating to the firm's domain of operation	(Burke and Collins, 2005; Keating et al., 2001; Currie and Darby, 1995)
FOCUS AND TIMESCALES: Breadth of Vision: short term verses long term thinking; orientation – task verses people, big picture	Workshops; Lectures; Discussion	Changes focus for action and prioritisation	(Buckley and Monks, 2008; Espey and Batchelor, 1987; Black and Earnest, 2009; Berg and Karlsen, 2012)
LEADERSHIP SKILLS: Interpersonal skills, consultative skills, listening skills, transformational leadership	Feedback, coaching, role plays, discussion, experiences, coaching, leadership tools, projects	Organisational citizenship of followers, productivity, performance and employee satisfaction, involvement, collaboration, coalitions for change	(Abrell et al., 2011; Black and Earnest, 2009; Bramley, 1999; Brodie, 1983; Militello and Benham, 2010)
MANAGERIAL TOOLBOX: Problem solving, conflict resolution, practical skills and strategies, innovative approaches to management, organisational skills, process skills, procedural knowledge – how to perform something, competences, analysis tools	Appreciative inquiry, simulation, improvisation, discourse, self-development, Action Learning, workshops	Solutions to challenges, controlled change within the organisation, the development of managers as change agents, involvement in change processes	(Berg and Karlsen, 2012; Cullens and Waters, 2012; Kawalek, 2006; Richards and Howard, 2004; Simmonds and Tsui, 2010; Black and Earnest, 2009; Bramley, 1999; Burke and Collins, 2005; Buckley and Monks, 2008; Brodie, 1983; Watkins et al., 2011; Currie and Darby, 1995)
SOCIAL CAPITAL: Friendships, Emotional ties with others 'US', or splitting, the exclusion of social groups 'THEM'. Categorization and affiliation, hierarchical location, participation, membership of an 'elite', status of attending, shared identity	Collusion and identification with the stories being told by others; Peer Pressure, social pressure, role models, fulfilling others expectations	The development of behavioural norms and a sense of belonging, the transmission of culture; Conformity; reinforcement and consolidation, coalitions, relationships, community involvement, staff retention, resentment amongst those who do not attend, teamwork, group alignment	(Carr and Cheryl Ann (formerly Lapp), 2011; Newstrom, 1986; Abrell et al., 2011; Berger and Luckmann, 1966; Espedal, 2004; Finch-Lees et al., 2005; Maurer and Palmer, 1999; Simmonds and Tsui, 2010; Black and Earnest, 2009; Brodie, 1983; Currie and Darby, 1995; Kamoche, 2000; Militello and Benham, 2010; Watkins et al., 2011)
NETWORK DEVELOPMENT: Exposure, Identification, recognition, visibility, navigation within networks	Networking, opportunities, who you meet	Relationships with senior managers and peers, career progression, identification of top performers, identification of performance issues, help, reputation, conscious	(Espedal, 2004; Simmonds and Tsui, 2010; Brodie, 1983; Black and Earnest, 2009; Watkins et al., 2011; Kamoche, 2000)

		development of talent, tap refine and hone, increased organisational influence	
INTEGRATION: Collaboration, cooperation, achieving the requisite balance of unity and diversity, meshing of skills	The integration of skills across business units: ALS, business projects	The development of core competence, Intangible assets and superior client value, realisation of synergy, teamwork, strategic assets, hard to duplicate competitive advantage, global capability	(Overmeer, 1997; Berger and Luckmann, 1966; Espedal, 2004; Hordern, 2012; Bilhuber Galli and Müller-Stewens, 2012a; Watkins et al., 2011; Currie and Darby, 1995)
KNOWLEDGE SHARING: Knowledge sharing, Bernstein's horizontal discourse (Hordern)	Storytelling: The development of conversations, dialogue and relationships; ALS, the combination of repertoires, workshops, case studies and reflection	Innovation, future learning, political behaviours, new actionable knowledge that changes behaviour and roles, new ideas	(Carr and Cheryl Ann (formerly Lapp), 2011; Cullens and Waters, 2012; Berg and Karlsen, 2012; Espedal, 2004; Hordern, 2012; Kamoche, 2000)
CULTURE: Shared attitudes, beliefs, values, assumptions, opinions and judgments, social awareness, organisational ideology, cultural norms	Co-worker approval, identification, rewarding effects, critical opinion sharing, defining the person through others	Ethical behaviour, relationships, organisational culture, common identity, common direction for action, reduce communication and coordination problems. Orientation, Works against nurturing diversity, variety as organisational strength, innovation and adaptation, change in language, citizenship, commitment to organisation	(Ardts et al., 2010; Schein, 1961; Bilhuber Galli and Müller-Stewens, 2012a; Espedal, 2004; Finch-Lees et al., 2005; Brodie, 1983; McCarthy and Garavan, 2007; Kamoche, 2000)
ATTITUDE: Commitment, self-purpose, loyalty, Satisfaction, self-esteem, cynicism, enriching the inner psyche, positivism	Unfreezing, changing and refreezing, push and pull motivators	Motivation to change, personal power, overcome deadlock, satisfaction of having an ALS project implemented	(Schein, 1961; Ards et al., 2010; Espedal, 2004; Espey and Batchelor, 1987; Maurer and Palmer, 1999; Richards and Howard, 2004; Simmonds and Tsui, 2010; McCarthy and Garavan, 2007; Watkins et al., 2011; Black and Earnest, 2009)
SELF EFFICACY: perceived control, Locus of control, confidence	Coaching, peer support, feedback	Change in behaviour, self-confidence, confidence to change	(Baek-Kyoo Joo, 2005; Ards et al., 2010; Berg and Karlsen, 2012; Cullens and Waters, 2012; Maurer and Palmer, 1999; Black and Earnest, 2009; Buckley and Monks, 2008; McCarthy and Garavan, 2007)

Appendix P: Rationale for Interview Questions

What follows is an explanation of the logic behind the questions that were developed to provide a structure for the interviews with the Programme Directors.

The specific interview questions are highlighted in bold below.

Questions one, two and three were to reveal background information about the intervention.

1. What can you tell me about xx and why they came to Cranfield?

1.1. What does the company do?

1.2. How long have xx had a relationship with Cranfield?

1.3. What stage of maturity is the intervention at?

1.4. What part of the organisation are we dealing with?

1.5. Who is the senior sponsor?

1.6. What is the organisation's objective or rationale for investing in the intervention?

2. How big is the target population?

2.1. How many participants are there per cohort?

2.2. How many cohorts are there per year?

3. Is the programme available to everyone at a particular level or are people selected onto it? If so how?

Questions four to eighteen were designed to reveal how and in what context the intervention delivers organisational outcomes. The questions were structured using 'CIMO Logic'. Questions four to nine relate to 'Context', Questions ten to twelve

relate to the ‘Intervention’, Questions thirteen to sixteen relate to ‘Outcomes’ and Question seventeen and eighteen relate to ‘Mechanisms’.

Questions four to seven were designed to reveal information about the organisation’s context. They are aligned with findings from the Systematic Review:

“At the organisational level factors identified were considered to influence both the design of the intervention and its efficacy. These factors included the fit with the organisation’s strategy, the fit of the strategy with the organisation’s environment (Antonacopoulou, 2001; Brown, 2003, 2007b) and the fit of the intervention with the organisation’s culture, method of operating (Buckley and Monks, 2008) (Systematic Review, p31) and any institutional mechanisms such as processes and procedures.”

4. How would you describe the organisation’s culture?

a. Does the culture differ by community of practice?

5. How would you describe the organisations strategy?

6. Is there anything you know about the organisation’s wider environment that has an impact on the intervention?

7. Is the programme linked to any specific organisational processes?

E.g. strategic planning, talent, competency frameworks, other programmes

Question eight was designed to reveal information about the role of senior managers. It was aligned with findings from the Systematic Review:

“The ongoing involvement of senior managers beyond the commissioning phase role modeling behaviours, demonstrating their commitment to learning, and supporting application efforts, is stated to have a positive impact on participant motivation and ultimately an intervention’s efficacy (Ardts, van der Velde and Maurer, 2010; Brown and May, 2012; Cullens and Waters, 2012; Simmonds and Tsui, 2010; Thach, 2002) (Systematic Review, P28)”

8. What role does senior management have in the intervention’s design, delivery and connection with practice?

Question nine was to reveal contextual factors relating to participants. The question was aligned with findings from the Systematic Review:

“The fit of the development intervention with the requirements of the participant’s individual role (Boaden, 2006; Jackson, Farndale and Kakabadse, 2003), their understanding of the purpose of the intervention (Ardts, van der Velde and Maurer, 2010) and the impact of their personality, ability, learning style, perceptions, psychological state and motivations were discussed within the literature (Baldwin and Ford, 1988; Baldwin and Padgett, 1994; Bernthal, Cook and Smith, 2001; Black and Earnest, 2009; Blume et al., 2010; Burke and Collins, 2004; Hotho and Dowling, 2010; Ladyshevsky, 2007; Rousseau and McCarthy, 2007; Schein, 1961)” (Systematic Review, P29)

9. How would you describe the participants?

- a. Role**
- b. Experience**
- c. Characteristics**

Question 10 was to establish the boundaries of the intervention

10. Is there any planned communication between participants and other people within the organisation?

Question 11 was to establish the design of the intervention. It was aligned with findings from the Systematic Review:

“Four primary methods of development were discussed in the literature. These were Teaching, Multi-Rater Feedback Questionnaires (360), Action Learning, and Coaching. (Systematic Review, P39)”

11. Please describe the intervention design?

- a. Where does learning happen?**

- b. What are the topics?***
- c. What Methods does it involve and what is the purpose of the various methods?***
 - i. Teaching***
 - ii. Psychometrics/360 Feedback***
 - iii. Action Learning/Problem solving***
 - iv. Coaching/Mentoring***
 - v. Other***

Question 12 was to establish what learning theories support the design of the intervention. It was aligned with findings from the Systematic Review:

“Four theories of how learning occurs within the intervention were identified within the CMD literature. These are described in Table 13 below:” (Systematic Review, P34)

<i>Learning Theory</i>	<i>Description</i>
<i>Technical Pedagogy</i>	<i>The transmission of fact and the application of concepts and theories at an abstract level</i>
<i>Andragogy (Knowles)</i>	<i>Learning in adults that draws on life experiences as a resource for incorporating into the learning process</i>
<i>Experiential Learning (Kolb)</i>	<i>Learning that involves concrete experiences and reflection which leads to conclusions that are then put into practice during new experiences</i>
<i>Social Learning (Bandura)</i>	<i>Social Construction: Co-reflective practice and collaboration to arrive at shared meaning and identity</i>
	<i>Mimicry: The observation of others behaviours in a particular context, committing them to memory in order to emulate them in similar contexts</i>

12. How would you describe the intervention’s learning style/pedagogical approach?

12.1. Transmission of knowledge and application to workplace

- 12.2. *Draws on life experiences of participants***
- 12.3. *Involves experience and reflection***
- 12.4. *Co-reflective activities to arrive at shared understanding***
- 12.5. *Other***

Question thirteen was to establish what outcomes the intervention is designed to address. It was aligned with findings from the Systematic Review:

“The CMD literature suggests that deficiencies are addressed by intervening in learning at the individual, group and organisational levels.” (Systematic Review, P34)

13. *What impact do you anticipate the intervention will have on:*

- a. The participants?***
- b. Their communities of practice?***
- c. The organisation?***

Two additional questions about Outcomes were included to establish if there is any evidence of the intervention’s efficacy

14. *What outcomes have you heard stakeholders talk about?*

15. *Has any evidence of impact been gathered:*

- 15.1. *At the individual level***
- 15.2. *At the organisational level***

Question sixteen was designed to identify whether there have been any unanticipated outcomes or consequences of the intervention.

16. *What unanticipated outcomes or consequences have there been?*

Questions seventeen and eighteen were to identify the organisational level mechanisms. Mechanisms are theoretical links between the intervention and outcomes that explain why outcomes occur in specific contexts.

17. How do you account for the link between the intervention and the organisation's objective for investing in the intervention?

18. How do intervention outcomes impact practice within the organisation?

Questions nineteen and twenty were to capture information that the Programme Director believed was important but had not been revealed by answering the previous questions.

19. Is there anything specific to the company and the intervention that stands out as being different or surprising?

20. Is there anything else I haven't asked that you would have expected me to ask?

Appendix Q: Schedule of Interviews in P2

<u>Source Code</u>	<u>Interviewee</u>		<u>Client Description</u>
A	Programme Director	Female, Ex-Cranfield Associate, 1 years-service at Cranfield	Insurance company
B	Programme Director	Female, Ex-researcher, 12 years-service at Cranfield	Cloud computing company
C	Programme Director	Male, Ex-development consultant, 9 years-service at Cranfield	Automotive components manufacturer
C2	Programme Director	Male, Ex-development consultant, 9 years-service at Cranfield	Automotive components group
D	Programme Director	Male, Ex-programme director at competitor university. 8 years-service at Cranfield	Subsea engineering consultants
E	Programme Director	Female, Ex-faculty, 11 years-service at Cranfield	Housing agency
F	Programme Director	Female, Ex-client, 6 years-service at Cranfield	Engineering
G	Programme Director	Female, Ex-consultant, 9 years-service at Cranfield	Aerospace
G2	Programme Director	Female, Ex-consultant, 9 years-service at Cranfield	Transport
H	Programme Director	Male, Ex-development consultant, 5 years-service at Cranfield	Heavy duty vehicle manufacturer
I	Programme Director	Male, Ex-trainer, 8 years-service at Cranfield	Luxury car manufacturer

In P3 an additional 11 interviews were held with the Programme Directors to introduce them to the model that had been developed during P2. The group of Programme Directors differed to the original group above as three of the respondents (B, C, and I) had left Cranfield. Three new respondents joined the group and were interviewed during P3.

In addition to the interviews two additional meetings were held with the Programme Directors where they were each asked to fit their portfolio of programmes into the matrixes at Table 42 and Table 44.

Appendix R – Design for Impact Illustrative Design

iLead2 Programme – Syllabus			
Learning Outcomes	Operational Expertise	Organizational Change Expertise	Organizational Learning Expertise
	Learning to Operate	Learning to Change	Learning to Adapt
Learning Approach	Tutor Input Operational/Management Knowledge and Theory: Administrative Excellence, Decision Making and Problem Solving, Team Building, Managing by Objectives	Leadership Knowledge and Theory: Change Management, Strategy, Entrepreneurship, Strategic Communication, Leadership	Organizational Knowledge and Theory: Creation and Innovation
	Participant Discussion Operational/Management Practices: Surface and critique current operational/management processes and practices within KSA	Leadership Practices: Surface and critique current organizational leadership processes and practices within KSA	Learning Practices: Surface and critique current organizational learning processes and practices within KSA
	Skills and Capability Development Operational/Management Tools: Practice new techniques Problem Setting and Solving, Decision Making, Working with Team Spirit, Managing by Objectives, Administrative Excellence	Strategic/Leadership Tools: Practice new techniques Strategic Analysis, Driving Change, Strategic Communication, Leadership	Learning and Innovation Tools: Personal Development Planning and the opportunity to practice new techniques: Giving and Receiving Feedback, Coaching and Mentoring, Action Learning, Design Thinking, Collaborative Learning
	Alignment with Saudi 2030 Operational/Management Behaviours: Develop understanding of what Saudi 2030 means to participants and their organizations	Leadership Behaviours: Develop understanding of where change is needed to meet Saudi 2030 objectives and what it means to the participants and their organizations	Learning Behaviours: Develop understanding of the unfolding context as KSA moves towards 2030 and what it means to the participants and their organizations
	Implementing Change within Participants' Organizations Operational Engagement: Engage participants in Operational Problem Setting and Solving within their own organizations	Strategic Engagement: Engage participants in Strategic conversations within their own organizations	Learning Engagement: Create the space for learning and reflection, and the development of learning across their organizational communities
	Networking Operational Relationships: Provide an opportunity for participants to meet similar KSA professionals	Leadership Relationships: Provide an opportunity for participants to meet senior KSA stakeholders	Learning Relationships: Develop an Alumni Network to promote future learning and support

Appendix - S - Field Testing Diary

11 th January	Drinks company: Senior L&D HR programme sponsors: CCED: John Glen, Geraint Evans Britvic: Shaun O'Hara, Director of Talent, Doug ? Group HRD	Model 1: The impact process model. To pitch Cranfield's capability to design and deliver a leadership development intervention for the Top 100 which would support the implementation of their 4 year strategy. Three models were used: High/Low Control Decision factors, Levels of Change and the overall systemic model. The models were used to specifically answer their questions: " <i>What is the right intervention and how would it be embedded to deliver benefits</i> ".	<u>Positive:</u> Related well to the diagram that illustrated levels of change (target diagram). Quickly clarified the level of change we were discussing. The High/Low control diagram led to discussion about where programmes had failed in the past (too high control needed to be more emergent). The systemic model also led to a good conversation about conflict emerging from interventions and the recognition that not all outcomes from CMD were positive and that the ongoing management of impact was essential. Immediate feedback from one of the stakeholders was that we had uncovered issues that others who had presented had ignored (suggested a solution rather than designing for impact). <u>Negative:</u> The level of detail on the High/Low control slide needs to be reduced – suggestion from Geraint that I simplify the model and then produce a short paper to support it for those who want to get more into the detail. Also Geraint recommended that we simplify the language from the academic to language that was more easily accessible to the practitioner audience	HIGH/LOW CONTROL MODEL: Simplify the High/Low Control Model. Review the language on all of the models. We were unsuccessful in our bid. The feedback I received was that the discussion revealed Cranfield's expertise in the design and commissioning of an intervention to meet specific needs, however, due to the timescales they wanted a more off the peg solution. The key contact suggested that they are likely to re-engage with us for other projects in the future where there is a longer timeline. In May 2016 they returned to Cranfield to ask for assistance with the design of a senior leadership programme.
20 th January	Insurance Company: Jayne Brown and client representative	To discuss designing impact into their new programme.	<u>Positive:</u> Jayne and Saskia both identified contextual factors that they had not considered during the diagnostic phase to date (the tape will highlight what those were). I have been asked to help Jayne and Saskia produce a specific model for their programme. Meeting to be arranged. <u>Negative:</u> The definitions within the model need to be refined specifically for a practitioner audience.	It was agreed that I would meet with Tricia to discuss the application of the model to their new programme Further discussions with Tricia were held in Amsterdam at Tricia's request (see diary entry 16 th February)
25 th January	Analytics CCED: Liz Bridge and Philippa Thurgar	To provide a framework for differentiating between the use of analytics currently in practice and identifying gaps in our portfolio	There are five potential steps in the process that we might collect data for an Impact Dashboard: A: Programme Design B: Teaching Aids C: Dialogue, Sensemaking and Capabilities D: Alignment and Engagement E: Programme Outcomes	Produced a Matrix and provided it to Philippa to help gather information about the Analytics that we currently use within practice. 8 th Feb – Philippa and I had a discussion (recorded) that highlighted the confusion between teaching aids, methods and models for facilitating participants learning and data for Impact Management. I need to develop a dashboard for data collection specifically relating to impact that I can then share with Philippa.
1 st February	HGV Company Pitch: Lester Coupland	To develop Design Principles for a pitch	The identification of Five Principles for impact management: 1. Change focus from measurement to management 2. Quality is CCED's responsibility, Efficacy is a joint responsibility	The Five principles have been adopted for pitches with other clients: They are still in use although slightly amended following further reflection.

			<p>3. Develop a shared view across stakeholders of the programme's objectives a) Pipeline, b) Practice, c) OD</p> <p>4. Measure impact on: Dialogue, Sense-making, Capabilities, Alignment and Engagement</p> <p>5. Identify and manage the barriers and enablers to sense-making and the embedding of learning throughout the process.</p>	
3 rd February	Faculty Development Programme	<p>To provide an explanation of the work that we perform within CCED:</p> <p>Created a slide with three types of programme: Pipeline, Practice, OD and known/unknown outcomes</p>	<p>There is still some confusion about the meaning of Practice. There may well be a better word to describe this but I am not sure what it is yet.</p>	Discussed with colleagues but no obvious alternative was found.
16 th February	Insurance Company Visit Amsterdam	Discuss impact with a client who is in the process of commissioning a new programme (final design stage)	<p>Used the process map, principles and barriers and enablers.</p> <p>Trisha became very thoughtful and a little unsettled, on questioning she stated she was considering all the challenges and how they were going to manage them which led to a conversation about the line managers and how they could align and engage them with the process.</p>	Decision taken to open the portal up to line managers and to share the video from the senior stakeholders about why they were investing and what they wanted to get out of the programme (initially the video was just going to be for the participants). The presentation I used is to be shared with Trisha and we will have a follow up discussion when she is at Cranfield in May. With regards to the model I realized that I needed to move from the process map to design propositions for different participant groups: Pipeline, Practice, Organisation – this led to the creation of the first version of the design proposition tables.
24 th February	Top Management Programme Impact Research Proposal	The proposition of Pawson's model and the mechanisms I have identified were used to explain how we would evaluate impact at the institutional and sector levels	In the first draft of Cranfield's proposal the piece I had written was merged into a broader document that confused action formation mechanisms with transformational mechanisms, this suggested that what I had written was not understood by the person who edited the document and highlights the need for greater clarity in my explanations	After further discussion the organisational and sector level section of our proposal was included as a separate section which discussed more emergent and systemic impacts of the programme. Although not selected by the research panel for the final project we were short listed and provided with very positive feedback about our suggestion for the use of realist evaluation and the presentation of the mechanisms.
23 rd March	CCED Strategy Document	Proposition of the Nine Box Grid to help identify what CCED does and how we might develop our capability in each of the areas	<p>Some got it immediately. One email asking for clarity on language – the concept of practice is still misunderstood and requires further work.</p> <p>Doc as a new starter responded very positively as he saw it as a way of identifying his personal development needs across the spectrum of work that CCED gets involved in.</p>	After further explanation Lester wrote back with an email identifying how the typology of interventions had helped him identify new thoughts about the work that we do and the challenges that we face when clients who unconsciously switch their perspective between boxes without consideration for the design implications
23 rd March	EDD explanation	Discussion with Sarah re Nine Box Grid	Cross referenced the grid with our marketing materials and identified that we predominantly only refer to outcomes related to single loop learning	Agreed to look at our current programmes and how they fit into the different categories so that we can create new client snapshots
8 th April	Logistics Company – Head of L&D	To discuss the learning from my research and connection with the proposition of additional interventions	Found the structure useful but had problems with the language which she felt was too academic and difficult to understand particularly as English is not her first language.	The original model of explanation was not intuitive to Ursula however she was in agreement with it once it had been fully explained. She was very positive about the Nine box grid and felt it could lead to innovation in programme design – language needs some work discussion about how difficult it is for her to build a case for CMD based on emergent outcomes. Discussion about the capability of her team to understand

				senior leadership development – particularly where they have a training rather than OD background. Process flow for creative thinking – most interested in this and can see how it helps to steer the emergent delivery of complex interventions.
13 th April	Bank Transitioning Leaders	The decision was taken by the Bank to change the target population for the intervention very close to the point of commissioning. The model was used to readjust my thinking quickly about the implications and requirements of the new population.	I had earlier had concerns that the project lead at the Bank had not understood the logic of the design that had previously been proposed for an existing practitioner population within the transformational context. This was confirmed when the idea was tabled that we run with the existing design but for a transitioning population. This was really disappointing and made me question the value of the models that I have developed. After further discussions with a Cranfield colleague it became apparent that it would be beneficial in certain contexts to use the models to develop illustrative programme frameworks that can be discussed with clients rather than discussing the models themselves.	Although the programme changed significantly, the model allowed me to quickly think through the implications of moving from box 2b to box 1b. The new design prompted a new innovation in design for Cranfield – The Step-Up Assignment as a mechanism to embed learning within the organization. The concept of the step-up assignment reduces the risk of implementing a parallel process of sense-making during transformational change. It is becoming increasingly clear that the model in its theoretical form is not clearly understood by client practitioners. The way to transfer the learning into practice is going to be through the development of specific design propositions. The language in the model also needs to be simplified to reflect the practitioner rather than academic audience.
14 th April	Engineering Company bid	Updated our statement on impact to include thinking from my research	It was quite difficult to transform my thinking from the research into language for the proposal but it helped by picking up more of the language we have previously used and making changes to the logic for action – e.g. the original statement was based around Kirkpatrick whereas the new statement is now built around the management and measurement of impact using an impact chain as a model rather than Kirkpatrick	
25 th April	SOM Portfolio Meeting (Academics and Programme Directors from across SOM)	Presented the 9-box grid as an example of how we can reposition the Cranfield exec dev portfolio according to impact	The group of programme directors from education (MBA/MSC) and Open Programmes quickly entered into discussions about where their programmes fitted. After the meeting the head of open programme sales asked to work with me to align the open programme catalogue with the boxes in the grid.	Mij requested a follow up meeting to help map the Open Programme Portfolio with the different needs in the grid. The follow up meeting was held for Mij and his team. They were very enthusiastic about the 9 box grid and how it could be developed within the Open Programme Portfolio. My first priority is to gain experience with it in CCED but this might be an opportunity that can be pursued later.
26 th April	Knowledge sharing in CCED	Discussion with Matt on how we can organize our shared file architecture to promote knowledge sharing and innovation	The file is currently organized by client name and year. The suggestion had been to organize the files by industry and geography. I explained the logic of the 9box grid and suggested that we might also like to consider the programme purpose	The recommendation to organize via the 9 box grid was made by Matt in his report to the EDDs. It was agreed that the 9 box approach would be explained at a meeting with the EDDs before a final decision was made. Meeting scheduled for 12 th May.
4 th May	Faculty Development Programme (Academics and Programme Directors)	Introduced the concept of Design for Impact including: Competence vs Capability, Impact Model 2 and 9-box grid	Conversations were all about how the concepts could be used rather than questions of validity. Two members of faculty suggested that the research would be suited to an HBR article. Questionnaire sent to participants to ask about the pragmatic validity of the concepts presented. I didn't give the model out but noticed that a few people were drawing it up on their note pads.	Follow up feedback from the participants was as follows: Positive from two of the members of faculty and EDDs, in particular the concept of competence verses capability was considered to be useful. The potential for using the Impact Model and Matrix as a way of connecting programmes with specific contexts was also considered to be helpful. One member of faculty stated that she would have liked to have heard more about how the model was created so I have offered to meet with her separately to discuss this.

11 th May	Insurance Company – programme sponsor discussion	Follow up on previous discussion in February about the impact of the newly commissioned programme	When I last met with Trisha I felt that the early version of the model and observations I shared with her were potentially overwhelming. Trisha confirmed that whilst she found the discussion broadened her thinking about impact management the discussion raised more questions than answers about how to manage impact on the programme. During the meeting today I shared the explanatory model of CMD. What emerged during the discussion was that due to changes in the organizational context (the org had changed ownership) the context was now more transformative than VUCA. The shorter term opportunity was therefore to demonstrate more immediate impact on how the programme assisted with their current challenges (if not Tricia believed that future investment would be harder to achieve). Tricia questioned whether the other programme stakeholders had identified the need to potentially reposition the programme at the intersection of the left hand corner of the matrix and thought that the matrix was useful as a tool to help realign the programme with the new context. I agreed to identify potential ways of capturing impact data in the boxes that now appeared to be most relevant to the programme.	<p>The definition of Transitioning Populations came under question during our discussion. Tricia in her mind has considered the target population to be a HIPO population but they are not actually in transition (i.e. There is no immediate plans to promote them they have just been identified as worth investing in).</p> <p>The programme has four impact priorities therefore:</p> <ol style="list-style-type: none"> 1. Develop an understanding of the capabilities required for future roles (the capabilities that will be required regardless of the changing context) 2. Develop their understanding of how the capability requirement in future roles might be changing (e.g. if the company moves from a decentralized to a centralized organizational structure) 3. Develop their understanding of how they can improve operational routines within their current area of operational responsibility 4. Develop their understanding of how to implement changes to existing operational routines as a consequence of transformational change at the organizational level.
12 th May	EDD Meeting	Presented as an approach to develop our client proposition and knowledge sharing	Presented competence verses capability. Model 2 and the 9 box grid. Competence verses capability created some debate but this was mainly associated with testing out an understanding of the concepts proposed.	The 9 box grid has been accepted as a way of categorizing our programme offering under the title of Design for Impact. I am to follow up with each EDD to identify where our existing client programme fit and to identify which programme elements potentially link with the different boxes. (See Appendix N) During the follow up meetings it became clear that the 9 box grid should be further simplified into a 6 boxes dropping the distinction between operational and organisational level populations.
12 th May	Meeting with open programme marketing	Used the model to explain how we might differentiate between the current open programme portfolio and customized work	The marketing team do not have the design expertise of an EDD but they intend to get further up-stream with corporate clients to discuss in broad terms their needs.	<p>Implement some simple rules to identify when to customise</p> <ul style="list-style-type: none"> ■ When does an in-house MD intervention become CMD – use of EDD? GMP within a single organization <p>CMD the context and an organizational need should be central</p>
31 st May to 6th June	CCED Client Portfolio discussion with EDDs	Map the existing client portfolio into the 9 box grid	It became apparent that the classification of transitioning, practice and organizational populations was not clear and that a better fit was between transitioning and in and level of seniority/span of control	Created a new table that differentiated between C level (Board), C-1 and C-2. All CCED programmes were mapped and 2 new tables of design propositions were developed – Things to Do, Things not to Do. (See Appendix N)
June/July	Mobile Telephone Company Proposal	Development of proposed designs for HIPO and Practice populations	The requirement included the development of modules that included Operations, Change and Learning Capabilities. The mapping of the existing individual level competence framework to organizational level capabilities was simple to produce.	The speed with which sense could be made of the company's competence framework and its translation into a detailed programme design was quick to achieve and easy to communicate to others within the proposal team. We subsequently won the work with the client.

Appendix T – Impact Barriers and Enablers

Category	Source	Description	Barrier	Enabler
<u>Dynamic Capability</u>	Case Studies	An organisational context that is not accustomed to change	X	
	Case Studies	Business metrics and control mechanisms that are not consistent with the changes that the programme seeks to initiate	X	
<u>Alignment</u>	Case Studies	Bureaucracy and process led behaviours	X	
	Case Studies	Lack of alignment between the culture and priorities of the Group and/or Operational Units	X	
	Case Studies	Organisational culture that is not consistent with the change that the programme looks to initiate or the learning that evolves	X	
	Case Studies	Lack of collaboration across functions, geographies or hierarchical levels	X	
	Case Studies	Alignment of the programme with the organisations strategy and strategic process		X
	Case Studies	Alignment of the programme with operational processes: e.g. PDR, talent management, OD		X
	Case Studies	Alignment of the programme with the organisations existing culture		X
	Case Studies	Alignment of the programme with a wider OD need or 'burning platform' for change		X
	Case Studies	Alignment of learning with strategic projects		X
	Case Studies	Leaders not supportive of the programme agenda	X	
<u>Leadership</u>	Case Studies	Leader behaviour which is not consistent with the programme agenda	X	
	Case Studies	Leaders not willing to support the embedding of learning from the programme	X	
	Case Studies	Leaders unwilling to empower participants	X	
	Case Studies	Leaders expecting or wanting programme outcomes to align with current ways of operating	X	
	Case Studies	Leaders feeling threatened by changes in behaviour amongst the programme participants	X	
	Case Studies	Lack of transparency about the strategy or processes	X	
	Case Studies	Lack of opportunities for the participants to engage with decision makers	X	
	Case Studies	Leaders as Sponsors		X
	Case Studies	Leaders as Mentors		X
	Case Studies	Leaders as Role Models		X
	Case Studies	Leaders as Tutors/Subject Matter Experts		X
	Case Studies	Leaders taking ownership of the programme and the programme agenda		X
	Case Studies	Programme sponsors wishing to learn from the programme and its participants		X
	Case Studies	Leaders setting expectations		X
	Case Studies	Sponsorship at the most senior level		X
<u>Learning Capability</u>	Case Studies	Inability to take in knowledge which conflicts with the dominant logic of the organisation or practice community (Absorptive Capacity)	X	
	Case Studies	Lack of learning capability amongst the leadership population (e.g. defensive, non-reflective practices)	X	
	Case Studies	Learning relegated to the last thing on the agenda	X	
	Case Studies	Short termism/utilitarian approach to learning	X	
	Case Studies	Guilt about being away from the business	X	
	Case Studies	Leadership commitment to formally embed learning back into the organisations systems and processes		X
	Case Studies	Organisational communication of programme outcomes		X
	Case Studies	Taking an emergent approach to programme design		X
<u>Power, Politics, Relationships</u>	Case Studies	Organisational politics or leadership power struggles working against change	X	
	Case Studies	Existing relationships where there is a lack of respect or trust	X	
	Case Studies	Conflict between groups as a consequence of perceived inequalities in opportunity	X	
	Case Studies	Lack of power by programme participants	X	
	Case Studies	Intolerance of diverse behaviours	X	
<u>Other Factors</u>	Case Studies	Line Manager's capability or willingness to support learning	X	
	Case Studies	Participant's learning capability	X	
	Case Studies	Lack of opportunities for promotion	X	
	Case Studies	Participant's decision not to accept promotional opportunities	X	
	Case Studies	Lack of belief in the organisation's strategy	X	
	Case Studies	Lack of clarity about programme objectives	X	
	Case Studies	Lack of resources to capitalise on programme outcomes	X	
	Case Studies	Lack of process for embedding learning back into the organisation	X	
	Case Studies	Line Manager's sponsorship of participant onto the programme		X
	Case Studies	Line Manager's involvement in the learning process		X
	Case Studies	The availability of opportunities for promotion		X
	Case Studies	Visibility of participants and their capabilities - increasing participant motivation to 'perform' on the programme or creating new opportunities for promotion		X
	Case Studies	Alignment of programme with role related challenges		X
	Case Studies	Requirement to feedback progress to senior leaders		X
	Case Studies	Change to the psychological contract as a consequence of investment in individuals and their careers		X
	Case Studies	Follow up interviews (Career Planning)		X
	Case Studies	Resources to support the embedding of learning e.g. coaches, learning diaries etc.		X

Appendix U – Client Fit to CMD Portfolio

Participant Context		Organisational Outcome Focus		
Transitioning: Competence Development	Incumbent: Practice Development	Operational Capabilities	Change Capabilities	Learning Capabilities
<i>C-1 to C</i>	C	FMCG, FMCG, Legal	Professional Services x 2	
<i>C-2 to C-1</i>	C-1	Automotive, Banking, Public Sector, Logistics,	Oil and Gas, Professional Services, Logistics, Telecoms, Automotive, IT, Public Sector, Housing, Housing	Technology, FMCG, Charity, Gaming
<i>C-3 to C-2</i>	C-2	Engineering, Public Sector x 3, Telecoms, Air Transport, Professional Services, , Catering, Aerospace,	Engineering, Telecoms, Air Transport, Logistics, Public Sector, Engineering, Automotive, Banking	Public Sector, Engineering, Banking
<i>C-4 to C-3</i>	C-3	Publishing, Air Transport, Oil and Gas x 2, Trading, IT, Banking, Banking, FMCG, IT, Automotive, Telecoms	Overland Transport, Publishing, Public Sector, Air Transport	Insurance, Oil and Gas
	Other	Publishing, Oil and Gas, Retail	Public Sector x 3,	Housing, Engineering x 2, Professional Services, Oil and Gas,

