

Change and its Leadership **2006 Research Survey**

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EXECUTIVE SUMMARY

This paper describes RFLC's most recent research study into the leadership of change of the last three years . In particular, it focuses on the nature and impact of "Framcap" leadership: an original synthesis of 'Framing' and 'Creating Capacity' leadership approaches and behaviours which have previously been identified and correlated with change success. These contrast with a 'Shaping' approach to leading change, which has previously been shown to correlate with change failure.

The study involved leaders of organisations spanning the private, public and not-for-profit sectors, resulting in the transcription and coding of 61 change stories. The stories were coded against a 'Framcap' framework, developed through a combination of insights from RFLC's previous research and the practical experience of RFLC consultants, and comprising four distinct categories of approach and behaviour: FC1: Attractor, Magnetic Energy; FC2: Edge and Tension, Amplifies Disturbance; FC3: Container, Holding Structure; FC4: Transforming Space, Creates Movement.

Both quantitative and qualitative analysis of the coding in relation to change success provided a very strong indication of the efficacy of Framcap leadership behaviours – contrasting with Shaping behaviours, which were further confirmed to predominate in, and correlate with, the less successful change stories. An overall correlational analysis indicated that Framcap behaviours were strongly correlated to success explaining some 27% of success variance. By comparison, the combination of 'Framing' and 'Creating Capacity' as separate categories explained just 6% of the variance in success - demonstrating the additional power of the 'Framcap' leadership factors, adding 21% to the combined factor used in our earlier research.

A major overall finding was that leadership behaviours explain some 47.2% of the variance in change success – showing clearly that they play a critical role in change.

The study revealed some interesting anomalies. For example, 'Framing' behaviours were positively related to success – but not significantly so. Also, FC4 (Transforming Space) proved less clear as a differentiator of success on its own, yet a sub-sample of the most successful leaders showed *all* Framcap behaviours to be significantly correlated with success – indicating that Framcap is most powerful when all of the four behaviours are deployed. The study also indicated some overlap between FC4 and some 'shaping' behaviours, and yet that Framcap can ameliorate some of the difficulties and failure associated with more directive/shaping approaches to change.

The quantitative analysis showed some additional correlations of interest. For example, it showed clearly that Framcap was significantly positively related to seniority, whereas Shaping was negatively related. It also showed that Framcap leadership increases the likelihood of change success in high Sociability corporate cultures (cf. Goffee and Jones) – whereas previous studies have correlated such cultures with change failure. This work has also shown statistically significant differences in change leadership approaches across the private, public and non-profit sectors – with the former more inclined towards 'framing' and 'creating capacity', the public sector favouring 'framcap' and non-profit sector tending towards 'shaping' behaviours.

Qualitative cross-case analysis of the top 5 leaders – those deploying Framcap most - enabled the identification of a set of leadership approaches and behaviours which distinguishes the most successful change leaders and involves all four of Framcap factors being used together in practice. It seems likely that this will prove particularly valuable to researchers and practitioners alike.

Similarly, the contrasting and relating of 'Shaping' and 'Framcap' leadership approaches to change provides a powerful 'map' of various forms of change leadership – ranging across the spectrum of effective, ineffective, invisible and 'dark'. It also points to keys to avoid the 'dark side' of change leadership and embrace evidently more productive approaches. These are hypothesised to involve qualities such as authenticity, positive intent and self-awareness.

INTRODUCTION

For the past three years RFLC have been engaged in a number of rigorous research studies exploring the impact of different change approaches and leadership behaviours on the success of change. Previous studies indicated that, across a broad range of contexts, a **change approach** that recognised complexity was more likely to lead to success than an approach which was more linear and sequential. Four overall approaches were identified. These were:-

i) Directive:

- Change being driven, controlled, managed, initiated from the top/centre/person or small group
- Simple theory of change or a few rules of thumb recipes
- Small range of interventions used
- Few targets set
- Tightly controlled communications
- Explicit project management
- Engagement is about control of drift (timescales, objectives, use of resources and local adaptation)
- Little or no attention given to capability development

ii) Self-Assembly:

- Tightly set direction
- Accountability for change lies with local managers
- Capability and capacity development
- Strategic direction but local adaptation
- Use of set tool kits and templates
- Innovation against certain parameters

iii) Master:

- Change being driven, controlled, managed, initiated from the top/centre/ person or small group
- Complex theory of change – lots of elements, drawing on more than two theorists, use of change models
- Wide range of interventions used
- Extensive engagement which influences change process
- Explicit project management
- Capability development

iv) Emergent:

Few big rules and loosely set direction

Change initiated anywhere in organisation but usually where there is high contact with client/customers

Issues of spread and diffusion – sharing best practice

Lateral connections important

Novel mixes of people

Innovation and experiments

Emphasis on sense making and improvisation

We found that Master and Emergent approaches were positively correlated to change success, whilst Directive and Self-Assembly approaches were negatively related to success.

In these studies we also identified three groupings of **leadership behaviour**. These were:-

a) Shaping Behaviour : the communication and actions of leaders related directly to the change; 'making others accountable'; 'thinking about change'; and 'using an individual focus'.

b) Framing Change: establishing starting points for change; 'designing and managing the journey'; and 'communicating guiding principles in the organisation'.

c) Creating Capacity: 'creating individual and organisational capabilities'; and 'communication and making connections'.

In most of the contexts we examined we found that Shaping behaviour was negatively related to success whilst Framing and Creating Capacity were positively correlated with success.

In the second of our previous studies we identified that a combination of Framing and Creating behaviours had a particularly powerful impact on change success. We labelled a synthesis of these behaviours as "**Framcap**"

This paper describes the latest research study which was designed to explore the nature of "Framcap" leadership in greater detail.

RESEARCH APPROACH

(a) Sample and Data Analysis

A total of 33 leaders from 33 different organisations agreed to participate in the research. The organisations represented were drawn from the private, public and not-for-profit sectors. They ranged from relatively small organisations to large multi-nationals and represented eight different countries. A full list of the participating organisations is provided in Appendix 2.

Each leader was interviewed and asked to talk at length about one or two significant change stories in which they had been involved as a leader. The interviewers were trained to use a behavioural approach in order to try to ensure that in describing their role in the change they gave clear examples of their behaviours. In total we obtained some 61 change stories. All of the interviews were audi-recorded and subsequently transcribed.

b) Coding Transcripts

The interview transcripts were coded by a trained team of coders, using a coding framework developed from the previous research combined with an analysis of leadership behaviours drawn from the practical consulting lessons provided by the RFLC team. This provided the following categories:

SHAPING

- SH1 : Personally acting as a catalyst
- SH2 : Making others accountable
- SH3 : Thinking about change
- SH4 : Using an individual focus

CREATING CAPACITY

- CR1 : Creating individual and organisational capability
- CR2 : Creating connections and communicating

FRAMING

- FR1 : Starting points for change
- FR2 : Shaping and steering the journey
- FR3 : Guiding principles in the organisation

FRAMCAP

FC1 : Attractor, Magnetic Energy: Pulls people towards the organisation's purpose and strategic intent through constantly creating shared atmosphere, spirit and meaning across the organisation.

FC2 : Edge and Tension, Amplifies Disturbance: Names and confronts tough issues, especially strongly held assumptions, beliefs and ways of doing things, with the intention of shifting the organisation's capacity to perform.

FC3 : Container, Holding Structure: Sets boundaries, expectations and hard rules and gives affirming signals that channel the energy of the organisation in the direction you want it to go.

FC4 : Transforming Space. Creates Movement: Makes and takes opportunities to shift things in the "here and now".

For each coding category the coders were provided with clear behavioural indicators. Coders were paired up and transcripts exchanged for re-coding. Differences were debated between the coders. A final review of all the codings was conducted by two members of the team who had not been involved in the original coding. One of these reviews entailed looking at the coding frequencies and distributions used by each coder to check for any apparent coding bias. Where any potential bias was detected the coders' transcripts were subject to a third review and follow-up discussion.

(c) Success, Contextual and Cultural Data

In the course of the interview participants were asked to rate the success of the change on a five point scale (5 = very successful; 1 = unsuccessful). In addition each coder rated the success of the change based on an overall analysis of each change story. In reviewing these ratings a strong skew on the data to the positive end was noticed. This led to the

team establishing an “expert panel” who reviewed all the change stories and each member applied a success rating. The final success rating which was used in the analyses was the average rating of the expert panel members.

Data was collected relating to the change context. The contextual data covered:-

- ♣ The timescale of the change
- ♣ The scope of the change
- ♣ The complexity of the change
- ♣ The source of the change (e.g. internal, external, etc.)
- ♣ The organisation’s history of change
- ♣ The nature of the change project (e.g. individually led, team led, etc.)

Coders rated each of the contextual variables on three or four point scales (using pre-defined scale descriptors). In addition the coders provided an overall assessment of the approach to change being adopted (using the four categories described above). The demographic data collected included:-

- ♣ Sector
- ♣ Seniority
- ♣ Individual change experience

In a previous study the impact of organisational culture on change approach, leadership and success had been studied. This was done using the Goffee and Jones culture model. This model looks at organisational culture in terms of:-

- i) Sociability: the degree of friendliness and mutual support in the organisation
- ii) Solidarity: the extent to which all are aligned behind clear and strong organisational goals.

In the previous study we found that high solidarity organisations tended to be more successful in implementing change. We also found that high solidarity organisations showed a predominance of a Master approach to change and Framing leadership behaviours. In order to review culture in the current study each interviewee was asked to complete a brief culture questionnaire (based on the Goffee and Jones model) at the end of the interview.

ANALYSIS OF THE DATA

The data was analysed both qualitatively and quantitatively.

a) Qualitative Analyses:

i) An analysis of data to explore the differences in leadership behaviours exhibited in stories which were organised in four categories of success viz

- | | |
|---|--------------|
| (a) “Top tier” – ratings of 4.33 plus | (12 stories) |
| (b) “Up there” – ratings of 3.67 - 4.32 | (23 stories) |
| (c) “Just about OK” – ratings of 3.0 – 3.33 | (13 stories) |
| (d) Unsuccessful – ratings of 2.9 and less | (9 stories) |
- (Four stories were excluded from this analysis due to inadequate behavioural data in the transcript.)

ii) An analysis of the top 5 and bottom 5 stories to ascertain the key differentiating behaviours.

iii) An analysis of the top 5 stories that had scored high on all 4 of the FC factors to ascertain “how leaders put them all together”

iv) Pulling out the great quotes for each of the four Framcap factors and analysis of them to tighten up the definition of the behaviours

v) Closer examination of high scoring FC4 (Transforming Space) stories to find out what leaders were doing in this practice, given that this factor was seen to be impacting differently to the other three factors in the quantitative analysis

b) Quantitative Analyses:

The coded data was analysed and converted to average frequency percentages for each coding category. This data was used for a wide range of statistical analyses designed to test and explore the conclusions from the qualitative analyses and to provide an indication of the significance and scale of the specific findings.

KEY FINDINGS

a) Qualitative

The initial overall analysis provided a very strong indication that Framcap leadership behaviours were dominant in the more successful change stories. On the other hand Shaping behaviours were dominant in the less successful change stories.

There was some evidence that Framing and Creating behaviours were also associated with change success, but to a lesser extent than we had found in our original study. However, this was perhaps unsurprising as the Framcap insight had resulted from combining Framing and Creating behaviours in a statistical analysis.

Overall this analysis provided relatively strong support for our earlier research. However, the more detailed qualitative analysis aimed at gaining a deeper understanding of the nature of Framcap indicated that Framcap was much more than a simple combination of Framing and Creating. Each of the four Framcap categories was explored to tease out the key behaviours. The findings of this analysis are summarised below:

FC1 : Attractor

- Connects with other at an emotional level, embodies the future intent of the organisation.
- Tunes in to day to day reality, sees themes and patterns that connect to a wider movement and from this creates a compelling story for the organisation.
- Uses this to set the context of how things fit together, working the story into the life of the organisation so that every conversation and decision “makes sense”.
- Visibly works beyond personal ambition to serve higher purpose, the organisation and its wider community.
- Is consciously aware of one’s own leadership and adapts this for a specific purpose.

FC2 : Edge and Tension

- Tells it as it is – describes reality with respect yet without compromise.

- In times of turbulence, has constancy; does not withdraw from tough stuff; keeps people's hands in the fire.
- Can spot and challenge assumptions – creates discomfort by challenging existing paradigms and disrupting habitual ways of doing things.
- Sets the bar high and keeps it there – stretches the goals and limits of what is possible.
- Does not compromise on talent – pays attention to getting and keeping “A” players.

FC3 : Container

- Sets and contracts boundaries, clear expectations and hard rules do that people know what to operate on (performance expectations) and how they need to operate (values and behaviours).
- Is self assured, confident and takes a stand for one's beliefs – is non-anxious in challenging conditions.
- Provides affirming and encouraging signals; creates ownership, trust and confidence.
- Makes it “safe” to say risky things and have the “hard to have conversations” via empathy and high quality dialogue skills.
- Creates alignment at the top to ensure consistency and constancy of approach.

FC4 : Creates movement

- Demonstrates a commitment that engenders trust, enabling the system to go to new places, learn about itself and act differently.
- Frees people to new possibilities through making oneself vulnerable and open.
- Understands what is happening in the moment and breaks established patterns and structures in ways that create movement in the “here and now”.
- Powerfully inquires into ripe systemic issues to enable deep change to happen.
- Creates time and space (including attending to its physical quality) for transforming encounters.

In looking at the highest group we identified the behaviours within each category which were most frequently encountered. From this analysis we found:

FC1 : Attractor

Connects with people at an emotional level: for example

“...what would make you proud to work at XX? I asked every single person in the company, what would make you proud? ... I synthesised it into, okay you've told me that you'd be proud to work for XX when you're working with people you respect, doing meaningful things on things that make a difference to the external world and that became ... So one, A being proud to work for XX was a uniting vision”.

Sets and frames the context of how things fit together: for example

“I know this is uncomfortable, I know this is difficult, but just remember you're not only a civil servant, you're a tax payer too and if I asked you how you would want me to spend your tax dollar, well, people will give you the same answers. They want you to spend it on health, education, defence and law and order of some description.”

FC2 : Edge and Tension

Tells it as it is – describes reality with respect yet without compromise: for example.

“So I said, do you want to treat people as children, or do you want them to know that the next two year or three years is going to look like? Because they’re going to find out at some point. And if they discover that you knew for a year before that there was going to be then what are they going to think about you then? I said “so I’m going to tell them……”

Holds people on course: for example

“ ...it’s like providing people with some sort of sense of true north, you know, don’t stray too far off course here. The other thing that I’m injecting here, and I do this with respect and I do it thoughtfully, but, there needs to be accountability.”

FC3 : Container

Creates ownership and incentives around the work: for example

“Making sure that these were ideas and action plans that were theirs, that they owned, that they felt accountable for, that there were incentives to deliver on: um, that was mainly what I did.”

Makes it safe to say risky things: for example

“If actually producing safely is the most important thing, that means slowing down and that actually really means doing it. And stopping. So, what we are committing to out of this room? And, you know, getting the management and the operating guys to agree between them the parameters for the next week’s production, where they produce 10% less, but everyone felt it was done safely and cleanly. And the quality was there. And they did quality checks together. So it was that kind of combined ...thing that makes the difference. But... the key is actually, um, allowing conversations to happen, or creating an environment where the people don’t feel like they’re going to have their heads bitten off, either at the shop floor, or the management; it’s both.”

FC4 : Transforming Space

Creating space; Creating time; for example

“I got them in a room and they said, okay, this is like the College of Cardinals. Okay, they’re not allowed out of the room until they elect a Pope, um, I’ve got one question for us, Andrea’s the CEO, and, if she came in here in two day’s time and said, over the next three to five years, what are you going to promise me, and you’re only allowed four things, what are the four things going to be?”

Putting self out there and allowing oneself to be vulnerable; for example

“I probably made it very clear that I was up for doing something incredibly scary and out of the ordinary, um, and I know that a couple of the leadership team would be very positive and supportive of doing that. So, I think with, with me giving the signal that I was up for it, that enabled ... momentum to build.”

In the analysis we did notice that FC4 (Transforming Space) was less clear as a differentiator. In order to explore this observation we again studied carefully the top 5

stories and the bottom stories which contained FC4. From this we identified that in the most successful stories the leaders' use of FC4 was much more than "just holding events of diverse people".

This is illustrated by the following quotation from one participant:

"Town Hall Sessions I would do...at all different times of the day and night to make sure that people from shifts could go... Probably the best thing I ever did was three guys showed up for a night shift thing... And I stayed four hours with those three guys... Well when they told their friends, you wouldn't believe it... I think people in the plan decided that I really cared about what they were doing."

In essence the use of FC4 amongst leaders in the top 5 successful changes was very focused on:

- Breaking established patterns in service of movement in the moment.
- Vulnerability was expressed ,but in order to free others to express their doubts and concerns
- Helping the system to learn in more ways than just putting unusual and diverse groups together.

A debated cross-case analysis of the top 5 participants (in terms of their deployment of Framcap) found the following behaviours which differentiated them from other leaders:

They understand and incorporate the wider context; they lead upwards and outwards to create space for the organisation and catalyse energy for change

They build their leadership teams to think and act for the whole – requiring them to step up and back to hold a bigger space and be strategic, interdependent and systemic - thereby creating an aligned transforming energy at the top

They work on the underlying system that produces the performance outcomes; they show an intense ability to "tune in" to their organisation, see patterns, notice how things are said not just what's being said, identify the few key assumptions and patterns that if shifted would transform everything, and then take creative moves to make those shifts

They are then patient with people to make the transition – while still keeping the change on course (others by contrast were passive, and just stood back and waited)

They display extremely high levels of self-awareness, are able to sense the impact they have on others, seek feedback and exchange on this, and consciously use their presence in the organisation to create shifts ("evidencing leadership")

They set tangible measures for the change; they open up the system to share information and performance data to both "hold up the mirror" and catalyse people to take personal ownership for improving things

Given that leaders who used all four of the Framcap behaviours were most successful the above analysis of how they are put together in practice is particularly valuable.

b) Quantitative

The quantified coded transcript data was analysed statistically. A full summary of these analyses is shown in Appendix I. From these analyses the statistically significant results (i.e. those which are unlikely to be a result of chance patterns) are summarised below:

i) Leadership Behaviours

An overall correlational analysis indicated that Framcap behaviours were strongly correlated to success explaining some 27% of success variance. Creating behaviours were also significantly related to success but at a lower level (explaining 8% of the variance). Notably Shaping behaviours were strongly negatively correlated to success. Overall this generally supports our earlier research findings. However, the significance of Framcap identified directly, rather than as a statistically computed item (i.e. the combination of Framing and Creating as in our earlier research), has a far greater impact. In this study the combination of Framing and Creating explained some 6% of the variance in success whereas Framcap explained 27%. Thus Framcap as measured directly is adding 21% to the combined factor used in our earlier research.

The one finding not supported was the impact of Framing. However, it remained positively related to success, although not significantly. In more detailed analysis (using hierarchical regression) its impact was found to be significant.

From the hierarchical regression it was evident that all leadership behaviours explain some 47.2% of the variance in change success.

In exploring the components of the leadership categories it is interesting to note that FC4 (Transforming Space) is the one Framcap behaviour which is not statistically significantly related to success. It is also noteworthy that all Shaping behaviours (except SH2) are negatively correlated to Framcap categories. On examining the behavioural indicators there does appear to be some overlap between SH2 and FC4. Analysis using this as a combined variable provided some support for this view.

In examining the extent to which these findings might vary across change contexts a series of partial correlations were conducted. These showed little in the way of difference – Shaping remained negatively correlated with success and Framing positively correlated. However, FC4 (Transforming Space) whilst positive remained insignificant statistically. The explanation of this may be found in the conclusions from the qualitative research (see above).

The apparent lack of impact of FC4 (Transforming Space) was explored in more detail. The sample was analysed and a sub-sample identified in which all four Framcap behaviours were present (n=30). In using this sub-sample **all** Framcap behaviours were significantly correlated with success. This it appears that Framcap is most powerful when all of the four behaviours are deployed.

Given that Framcap was originally identified by statistically combining Framing and Creating it is important to ascertain whether the category as explored in more detail has a greater impact than a simple combination. This was tested using a combined variable (FRCR). The results of the analysis showed that Framcap explained a significantly greater variance of success than the combined variable (27.2% versus 6.1%).

The overall structure of the Framcap behaviours was analysed using Factor analysis. This showed that a two factor model best explained the patterns in the data. The first factor combined FC3 (Container) and FC2 (Edge and Tension). The second combined FC1 (Attractor) and FC4 (Transforming Space). Using these factors we found that the combined FC3/FC2 factor explained 20% of the variance of success, whilst FC1/FC4 explained 7% of the variance. However, it is important to recognise that the real power lies in using all four components.

The analysis of the data based on the seniority of the leaders showed clearly that Framcap was significantly positively related to seniority and Shaping was negatively related. Thus it would appear that Framing behaviours are used more notably by more senior leaders and Shaping behaviours more notably used by less senior leaders.

The sample comprised organisations from the Private, Public and “Third” Sectors. The differences were explored using t-tests. The key differences statistically significant are summarised in Table 1 below.

Table 1 Sector Differences

	Public Sector	Private Sector	“Third” Sector
Public Sector		Greater use of Framing and Creating particularly FR2, CR1 and CR2	Higher on Shaping particularly SH4 and also on CR2
Private Sector	Greater use of Framcap – particularly FC1, 2, and 3		Higher on FC1 and Shaping
“Third” Sector	Greater use of Framcap particularly FC2	Higher on Framing and FR1 in particular	

Overall it appears that the Public sector are strong in Framcap, the Private sector in Framing and Creating and the “Third” sector in Shaping.

ii) Approaches to Change

The main purpose of this research study was to explore leadership behaviours. However, we also had some data relating to approaches to change. This data was, in essence, categoric and therefore we explored leadership within the four categories with the intention to identify the leadership behaviours within each approach which appeared to impact on change success. Within this sample we found insufficient examples of Self-Assembly change to enable this category to be examined. From the analysis we found the following significant results:-

- In our previous research we found that Directive change was negatively related to success. However, the analysis indicated that if a Directive approach is combined with Framcap behaviours there is some evidence that change can be implemented successfully (accounting for 44% of the variance). Furthermore FC3 (Container) seems to be particularly important.
- Within the Master approach there is some evidence that the Shaping behaviour SH2 – Making others accountable - is positively related to change success.

- In the original research the impact of Framing behaviour within a Master approach was found to be positively related to success. This was supported by the current analyses. However, both Creating and, notably, Framcap were more significant with Framcap in this approach explaining 26% of the variance in success.
- Interestingly within Emergent change Framing appeared to have the most significant impact on success, accounting for 58% of the variance in success. However, Framcap does not appear to have a significant impact within this approach.
- The negative impact of Shaping overall is generally strongly reinforced.
- Overall it did appear that some reinforcement of earlier findings were found with Master approaches being the most successful followed by Emergent ones and both Directive and Self-Assembly being negatively related to success.

iii) Organisational Culture

In explaining the impact of organisational culture we found support across all contexts for our previous study indicating that a high Solidarity culture is positively related to success whilst a high Sociability culture is negatively (although not significantly) related. However, as with change approach a combination of high Sociability and Framcap leadership behaviours does link to change success. Overall the negative impact of Shaping behaviours is reinforced by these analyses.

CONCLUSIONS

This study has generated a significant amount of data and a wide range of interesting insights. Reviewing the combined qualitative and quantitative insights reveals the following key conclusions:

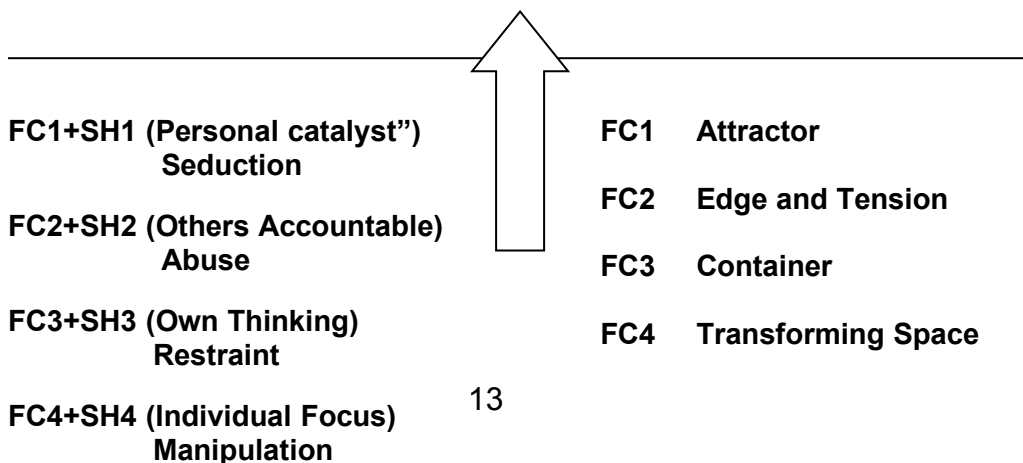
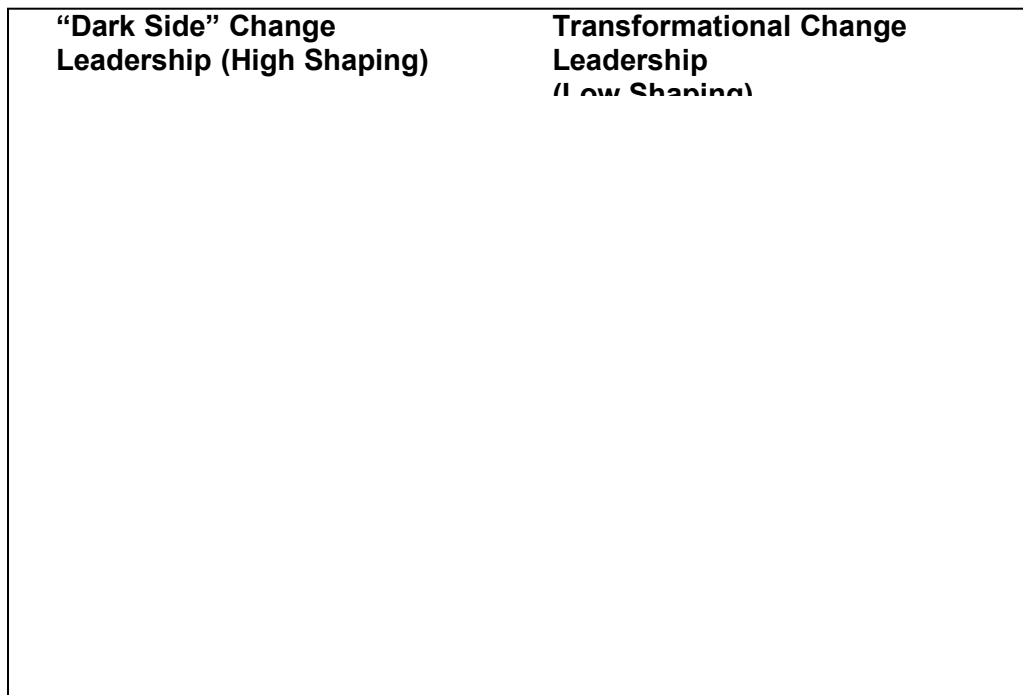
- i. Leadership plays a critical role in change, accounting for some 47.2% of the variance in success.
- ii. In examining leadership behaviours it is important to recognise the power of Framcap behaviours which dominate all of the analyses. Indeed Framcap behaviours can ameliorate the negative impacts of some approaches to change (i.e. Directive).
- iii. Whilst Framcap is important it is crucial to use all four of the behaviour categories.
- iv. Shaping behaviours mitigate against change success in all contexts and settings.
- v. Organisation culture remains a significant factor to be taken into account. However, Framcap leadership behaviours may ameliorate the negative impact of cultural orientation.
- vi. At the core of this research appears to be the relationship between Framcap and Shaping behaviours. This may be summarised as in Figure 1.

Figure 1 Shaping and Framcap Interactions



In reflecting on this it is feasible to present a model of pseudo and authentic change leadership, in which the combination of Shaping and Framcap could lead to pseudo or “dark side” change leadership. This is shown in Figure 2.

Figure 2 Transformational and Change Leadership



Barriers to movement to

“Dark Side”:-

- **Authenticity**
- **Intent**
- **Self-Awareness**

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APPENDIX I

Quantitative Findings

A. Correlational Analyses and Leadership Groupings

The overall impact of the leadership factors

Correlations between the four leadership groupings (i.e. Shaping, Creating, Framing and Framcap) and the finally assessed change success are summarised in Table 1. This provides clear evidence to support the negative impact of shaping behaviour found in the earlier studies.

Table 1: Correlations of Leadership Groupings with success (n=60)

Correlations		final panel success rating	Variance
Shaping	Pearson Correlation	-0.406	0.17
	Sig. (2-tailed)	0.001	
Framing	Pearson Correlation	0.009	
	Sig. (2-tailed)	0.946	
Creating	Pearson Correlation	0.286	0.08
	Sig. (2-tailed)	0.027	
Framcap	Pearson Correlation	0.521	0.27
	Sig. (2-tailed)	0.000	

Evidence is also found to support the significant positive impact of Creating Capacity. However, it is initially surprising that Framing behaviour is not significantly associated with success. Overall Framcap behaviours are strongly associated with success (accounting for 27% of the variance). The absence of a relationship between Framing behaviour (and indeed the lower variance in Creating Capacity) may be a result of the Framcap behaviours being derived from both of these leadership groupings following the 2004 study.

Exploring the component elements of the leadership groupings identifies those elements which appear to be having the most significant impact on the overall correlation of the groupings. These findings are shown on Table 2.

Table 2: Leadership elements correlated with success (n=60)

Correlations		final panel success rating	Variance
SH1 Pct	Pearson Correlation	-0.453	0.21
	Sig. (2-tailed)	0.000	
SH2 Pct	Pearson Correlation	0.139	
	Sig. (2-tailed)	0.288	
SH3 Pct	Pearson Correlation	-0.269	0.07
	Sig. (2-tailed)	0.038	
SH4 Pct	Pearson Correlation	-0.080	
	Sig. (2-tailed)	0.544	
FR1 Pct	Pearson Correlation	0.073	
	Sig. (2-tailed)	0.580	
FR2 Pct	Pearson Correlation	0.110	
	Sig. (2-tailed)	0.402	
FR3 Pct	Pearson Correlation	-0.025	
	Sig. (2-tailed)	0.851	
CR1 Pct	Pearson Correlation	0.235	0.06
	Sig. (2-tailed)	0.070	
CR2 Pct	Pearson Correlation	0.224	0.05
	Sig. (2-tailed)	0.085	
FC1 Pct	Pearson Correlation	0.308	0.10
	Sig. (2-tailed)	0.017	
FC2 Pct	Pearson Correlation	0.335	0.11
	Sig. (2-tailed)	0.009	
FC3 Pct	Pearson Correlation	0.389	0.15
	Sig. (2-tailed)	0.002	
FC4 Pct	Pearson Correlation	0.113	
	Sig. (2-tailed)	0.391	

In broad terms this analysis is (expectedly) in line with the overall grouping correlation. However, it is interesting to note that one of the elements of Shaping behaviour (SH2) is not negatively related to success. In addition it is evident that the Framcap element (FC4) is not statistically significantly related to success.

An intercorrelation analysis of all of the elements of the Leadership groupings was carried out to explore interrelationships. This analysis is shown in Table 3.

**Table 3: Intercorrelations of elements of Leadership Groupings
(n=60)**

Correlations		SH1 Pct	SH2 Pct	SH3 Pct	SH4 Pct	FR1 Pct	FR2 Pct	FR3 Pct	CR1 Pct	CR2 Pct	FC1 Pct	FC2 Pct	FC3 Pct	FC4 Pct
SH1 Pct	Pearson Correlation	1	0.081	0.154	0.185	-0.200	-0.155	-0.150	-0.166	-0.152	-0.155	-0.083	-0.537	-0.106
	Sig. (2-tailed)	.	0.539	0.241	0.157	0.126	0.236	0.254	0.206	0.246	0.237	0.528	0.000	0.420
SH2 Pct	Pearson Correlation	0.081	1.000	-0.086	0.003	-0.040	-0.083	-0.212	-0.167	-0.059	-0.006	0.084	0.066	0.217
	Sig. (2-tailed)	0.539	.	0.515	0.979	0.761	0.531	0.105	0.203	0.654	0.963	0.522	0.614	0.096
SH3 Pct	Pearson Correlation	0.154	-0.086	1.000	0.055	-0.074	-0.307	0.010	-0.128	0.002	-0.029	-0.242	-0.191	-0.081
	Sig. (2-tailed)	0.241	0.515	.	0.677	0.576	0.017	0.940	0.330	0.987	0.827	0.062	0.143	0.540
SH4 Pct	Pearson Correlation	0.185	0.003	0.055	1.000	-0.081	0.092	0.061	-0.190	0.142	-0.212	-0.301	-0.256	-0.212
	Sig. (2-tailed)	0.157	0.979	0.677	.	0.540	0.483	0.641	0.146	0.279	0.105	0.020	0.049	0.103
FR1 Pct	Pearson Correlation	-0.200	-0.040	-0.074	-0.081	1.000	0.070	-0.054	0.175	0.066	0.245	-0.095	-0.031	-0.036
	Sig. (2-tailed)	0.126	0.761	0.576	0.540	.	0.595	0.679	0.182	0.619	0.059	0.472	0.815	0.783
FR2 Pct	Pearson Correlation	-0.155	-0.083	-0.307	0.092	0.070	1.000	0.109	0.306	0.125	0.228	-0.211	-0.008	-0.251
	Sig. (2-tailed)	0.236	0.531	0.017	0.483	0.595	.	0.406	0.017	0.340	0.080	0.105	0.949	0.053
FR3 Pct	Pearson Correlation	-0.150	-0.212	0.010	0.061	-0.054	0.109	1.000	0.057	0.222	-0.040	-0.089	0.186	0.278
	Sig. (2-tailed)	0.254	0.105	0.940	0.641	0.679	0.406	.	0.668	0.089	0.764	0.501	0.155	0.032
CR1 Pct	Pearson Correlation	-0.166	-0.167	-0.128	-0.190	0.175	0.306	0.057	1.000	0.274	0.426	0.277	-0.168	-0.115
	Sig. (2-tailed)	0.206	0.203	0.330	0.146	0.182	0.017	0.668	.	0.034	0.001	0.032	0.199	0.382
CR2 Pct	Pearson Correlation	-0.152	-0.059	0.002	0.142	0.066	0.125	-0.222	0.274	1.000	-0.123	0.539	0.247	-0.215
	Sig. (2-tailed)	0.246	0.654	0.987	0.279	0.619	0.340	0.089	0.034	.	0.349	0.000	0.057	0.099
FC1 Pct	Pearson Correlation	-0.155	-0.006	-0.029	-0.212	0.245	0.228	-0.040	0.426	-0.123	1.000	0.006	0.016	0.257
	Sig. (2-tailed)	0.237	0.963	0.827	0.105	0.059	0.080	0.764	0.001	0.349	.	0.964	0.906	0.047
FC2 Pct	Pearson Correlation	-0.083	0.084	-0.242	-0.301	-0.095	-0.211	-0.089	-0.277	0.539	0.006	1.000	0.259	0.015
	Sig. (2-tailed)	0.528	0.522	0.062	0.020	0.472	0.105	0.501	0.032	0.000	0.964	.	0.045	0.908
FC3 Pct	Pearson Correlation	-0.537	0.066	-0.191	-0.256	-0.031	-0.008	0.186	-0.168	0.247	0.016	0.259	1.000	-0.070
	Sig. (2-tailed)	0.000	0.614	0.143	0.049	0.815	0.949	0.155	0.199	0.057	0.906	0.045	.	0.596
FC4 Pct	Pearson Correlation	-0.106	0.217	-0.081	-0.212	-0.036	0.251	0.278	-0.115	-0.215	0.257	0.015	-0.070	1.000
	Sig. (2-tailed)	0.420	0.096	0.540	0.103	0.783	0.053	0.032	0.382	0.099	0.047	0.908	0.596	.

These intercorrelations do indicate a potential relationship between the Shaping element (SH2) and the Framcap element (FC4). This is interesting given the comment above relating to the elements correlation with success. Content analysis of the elements indicates that they may be related and thus could warrant an exploration of relationships to success using a combined SH2/FC4 variable. An analysis employing this revised variable is presented in Table 4.

Table 4: Revised elements correlated with success (n=60)

Correlations		
		final panel success rating
SH1 Pct	Pearson Correlation	-0.453
	Sig. (2-tailed)	0.000
SH3 Pct	Pearson Correlation	-0.269
	Sig. (2-tailed)	0.038
SH4 Pct	Pearson Correlation	-0.080
	Sig. (2-tailed)	0.544
FR1 Pct	Pearson Correlation	0.073
	Sig. (2-tailed)	0.580
FR2 Pct	Pearson Correlation	0.110
	Sig. (2-tailed)	0.402
FR3 Pct	Pearson Correlation	0.025
	Sig. (2-tailed)	0.851
CR1 Pct	Pearson Correlation	0.235
	Sig. (2-tailed)	0.070
CR2 Pct	Pearson Correlation	0.224
	Sig. (2-tailed)	0.085
FC1 Pct	Pearson Correlation	0.308
	Sig. (2-tailed)	0.017
FC2 Pct	Pearson Correlation	0.335
	Sig. (2-tailed)	0.009
FC3 Pct	Pearson Correlation	0.389
	Sig. (2-tailed)	0.002
FC4andSH2	Pearson Correlation	0.174
	Sig. (2-tailed)	0.184

This analysis does not indicate that the combined variable has a statistically significant relationship to change success. However, the correlation coefficient of the combined variable is greater than either of the individual variables.

Leadership behaviours and Change approaches

Earlier research examined the relationships between the overall approach to change and its success, together with the relationship between change approaches and leadership behaviours. The nature of this study only explored change approach at a categorical level and thus did not enable an analysis of the relationship between approach and change success due to the distribution of approaches within the sample (Directive 11; Master 36; Self-Assembly, 4; Emergent, 9). This distribution precluded effective use of non-parametric tests. However, a very basic exploratory analysis could be conducted exploring the relationships between the leadership elements and change success in three of the four approaches (Self-Assembly was too small a grouping to enable even the most basic exploratory analysis). This analysis is presented in Table 5.

Table 5: Change Approach and Leadership elements correlations

Correlations		Directive (n=11)	Master (n=36)	Emergent (n=9)	
		final panel Variance	final panel Variance	final panel success rate	
SH1 Pct	Pearson C	-0.559	-0.029	-0.758	0.57
	Sig. (2-tailed)	0.150	0.867	0.007	
SH2 Pct	Pearson C	-0.083	0.276	0.029	
	Sig. (2-tailed)	0.846	0.098	0.933	
SH3 Pct	Pearson C	-0.681	0.46	-0.137	
	Sig. (2-tailed)	0.063		0.420	
SH4 Pct	Pearson C	0.026	-0.002	0.184	
	Sig. (2-tailed)	0.951	0.989	0.589	
FR1 Pct	Pearson C	-0.762	0.58	-0.170	0.856
	Sig. (2-tailed)	0.028		0.314	0.001
FR2 Pct	Pearson C	0.327	-0.094	0.618	0.38
	Sig. (2-tailed)	0.429	0.580	0.043	
FR3 Pct	Pearson C	0.090	0.359	0.13	0.599
	Sig. (2-tailed)	0.832	0.029		0.051
CR1 Pct	Pearson C	0.336	0.570	0.33	0.327
	Sig. (2-tailed)	0.416	0.000		0.326
CR2 Pct	Pearson C	0.037	0.142	0.035	
	Sig. (2-tailed)	0.930	0.402	0.919	
FC1 Pct	Pearson C	0.604	0.493	0.24	0.221
	Sig. (2-tailed)	0.113	0.002		0.514
FC2 Pct	Pearson C	0.586	0.237	0.071	0.01
	Sig. (2-tailed)	0.127	0.158	0.836	
FC3 Pct	Pearson C	0.674	0.45	0.173	
	Sig. (2-tailed)	0.067		0.305	
FC4 Pct	Pearson C	-0.038	0.201	-0.125	
	Sig. (2-tailed)	0.928	0.232	0.714	
Shaping	Pearson C	-0.510	0.009	-0.738	0.54
	Sig. (2-tailed)	0.197	0.959	0.009	
Framing	Pearson C	-0.369	0.372	0.14	0.764
	Sig. (2-tailed)	0.368	0.024		0.006
Creating	Pearson C	0.166	0.442	0.20	0.125
	Sig. (2-tailed)	0.695	0.006		0.713
Framcap	Pearson C	0.664	0.44	0.508	0.26
	Sig. (2-tailed)	0.073		0.001	0.763

In the previous research (2004/5) Directive change was shown to be negatively related to change success. However, this analysis does indicate that, within this approach, the Framcap grouping of behaviour could lead to successful change.

In a Master approach to change it is interesting to note that the SH2 element of leadership is notably (although not statistically very significantly) related to change success. This provides further evidence which indicates that the SH2 element warrants further investigation. In the 2004/5 research the impact of Framing leadership within a Master approach was highlighted. Table 5 indicates support for this finding, even though in the overall analyses above Framing did not emerge as a significant leadership category.

Finally it is interesting to note that, within a Emergent approach to change, Framcap does not have a significant impact on success whereas Framing does. This is worth further investigation.

Impact of Contextual Variables

Exploration of the impact of contextual variables was carried out using partial correlations. The results of this analysis are shown in Table 6.

Table 6: Leadership Partial Correlations (n=60)

Partial Correlations												
	Hi Magnitu	Variance	Long	Variance	Long	Variance	Team	Variance	High	Variance	High	Variance
			Experience		Timescale		Initiated		Scope		Complexity	
SH1 Pct	-0.544	0.30	-0.525	0.28	-0.481	0.23	-0.525	0.28	-0.480	0.23	-0.553	0.31
	0.000		0.000		0.000		0.000		0.000		0.000	
SH2 Pct	0.195		0.068		0.013		0.075		0.160		0.204	
	0.167		0.630		0.929		0.599		0.257		0.146	
SH3 Pct	-0.271	0.07	-0.211		-0.196		-0.199		-0.225		-0.285	0.08
	0.052		0.134		0.164		0.157		0.109		0.041	
SH4 Pct	-0.077		-0.008		-0.027		0.032		-0.005		-0.057	
	0.588		0.953		0.847		0.822		0.972		0.686	
FR1 Pct	-0.076		0.001		-0.015		-0.027		-0.050		-0.046	
	0.594		0.992		0.916		0.847		0.725		0.747	
FR2 Pct	0.100		0.146		0.155		0.156		0.097		0.104	
	0.479		0.302		0.272		0.271		0.494		0.465	
FR3 Pct	0.030		0.111		0.090		0.112		0.023		0.012	
	0.835		0.434		0.525		0.427		0.874		0.932	
CR1 Pct	0.238	0.06	0.169		0.229		0.198		0.259	0.07	0.248	0.06
	0.089		0.232		0.102		0.159		0.064		0.076	
CR2 Pct	0.283	0.08	0.162		0.164		0.160		-0.212		0.236	0.06
	0.042		0.252		0.244		0.258		0.131		0.093	
FC1 Pct	0.269	0.07	0.249	0.06	0.303	0.09	0.232	0.05	0.303	0.09	0.253	0.06
	0.054		0.075		0.029		0.097		0.029		0.071	
FC2 Pct	0.405	0.16	0.278	0.08	0.240	0.06	0.264	0.07	0.330	0.11	0.399	0.16
	0.003		0.046		0.087		0.058		0.017		0.003	
FC3 Pct	0.438	0.19	0.331	0.11	0.292	0.09	0.324	0.11	0.349	0.12	0.429	0.18
	0.001		0.017		0.036		0.019		0.011		0.002	
FC4 Pct	0.059		0.044		0.078		0.034		0.025		0.038	
	0.677		0.757		0.581		0.810		0.863		0.788	
Shaping	-0.475	0.23	-0.439	0.19	-0.423	0.18	-0.409	0.17	-0.391	0.15	-0.478	0.23
	0.000		0.001		0.002		0.003		0.004		0.000	
Framing	0.031		0.141		0.125		0.130		0.039		0.040	
	0.826		0.320		0.374		0.358		0.783		0.780	
Creating	0.322	0.10	0.203		0.223		0.219		0.285	0.08	0.295	0.09
	0.020		0.150		0.109		0.118		0.040		0.034	
Framcap	0.528	0.28	0.417	0.17	0.426	0.18	0.398	0.16	0.462	0.21	0.513	0.26
	0.000		0.002		0.001		0.003		0.001		0.000	

Two things are very evident from examining Table 6. The first is that Shaping behaviour is strongly negatively related to the success of change in all of the change contexts. This provides strong support for the findings from our previous studies. The second strong pattern to emerge is that Framcap is strongly positively related to change success. This reinforces the impact of this grouping in terms of change success identified in the preceding analyses.

The overall impact of the Framcap grouping is largely reinforced by the analyses of the elements which comprise Framcap. However, it is surprising that FC4 does not appear to have any significant impact. This finding is explored through further analyses in a subsequent section of this paper.

The grouping labelled Creating Capacity appears to have a significant relationship to success in a number of contexts (High Magnitude, Long History of Change, High Scope and High Complexity). This finding provides some support for our previous studies.

B. Regression Analyses and the Leadership Groupings

A stepwise regression analysis with change success using the four leadership groupings was conducted to explore the variance explained. The results of this analysis are shown in Table 7.

Table 7: Stepwise Regression of Leadership Groupings

Model Summary						
Model	Change Statistics					
	R Square	F Change	df1	df2	Sig. F Change	
1	0.308	8.318	3.000	56.000	0.000	
a	Predictors: (Constant), Framcap, Framing, Creating					
Coefficients(a)						
Model	Unstandardized Coeffi		Standardiz t		Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.096	0.516		4.060	0.000
	Framing	0.060	0.036	0.199	1.690	0.097
	Creating	0.009	0.018	0.070	0.498	0.620
	Framcap	0.113	0.027	0.627	4.255	0.000
a	Dependent Variable: final panel success rating					

Perhaps, as would be expected from the above analyses, Shaping behaviour was an excluded variable in the stepwise computation. Overall the combination of Framcap, Framing and Creating accounted for 30.8% of the variance in change success. An examination of the Standardised Betas and their significance does highlight the significant impact of Framcap (Beta 0.627).

Although Framing does not show any significant correlations with success, the regression indicates that it has a more significant impact than Creating. This is borne out by the hierarchical regression (see Table 8) which shows that it explains around 3.5% of success variance.

Table 10: Stepwise Regression of Leadership Elements

Model Summary						
Model	Change Statistics					
	R Square	F Change	df1	df2	Sig. F Change	
1	0.472	3.497	12.000	47.000	0.001	
a	Predictors: (Constant), FC4 Pct, FC2 Pct, FR1 Pct, SH2 Pct, SH1 Pct, FC1 Pct, SH4 Pct, FR3 Pct, FR2 Pct, FC3 Pct, CR1 Pct					
Coefficients(a)						
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.233	1.136		1.966	0.055
	SH1 Pct	-0.021	0.015	-0.250	-1.417	0.163
	SH2 Pct	0.043	0.031	0.169	1.381	0.174
	SH3 Pct	0.001	0.020	0.006	0.039	0.969
	SH4 Pct	0.031	0.023	0.214	1.328	0.191
	FR1 Pct	0.002	0.025	0.010	0.076	0.940
	FR2 Pct	0.047	0.025	0.259	1.886	0.066
	FR3 Pct	-0.004	0.021	-0.021	-0.175	0.862
	CR1 Pct	0.001	0.022	0.011	0.057	0.955
	FC1 Pct	0.038	0.020	0.337	1.915	0.062
	FC2 Pct	0.030	0.013	0.362	2.326	0.024
	FC3 Pct	0.022	0.018	0.220	1.254	0.216
	FC4 Pct	0.017	0.016	0.153	1.072	0.289
a	Dependent Variable: final panel success rating					

This also indicates that the most significant elements contributing to success are FC2 (Beta 0.362) and FR2 (Beta 0.259). Once again this provides some evidence to support the Framing findings from our earlier studies.

C. Impact of Culture

In our 2004 study we explored the impact of culture on change success, change approach and leadership factors. In doing this we used the Goffee and Jones model of organisational culture. In this study we again used the Goffee and Jones framework.

Table 11: Culture Correlations with success (n=48)

Correlations		final panel	Variance
Sociability	Pearson Correlation	-0.130	
	Sig. (2-tailed)	0.412	
Solidarity	Pearson Correlation	0.285	0.08
	Sig. (2-tailed)	0.067	

Table 11 shows the

correlations between the two determining dimensions of the Goffee and Jones framework and change success.

As in our 2004 study the analysis shows a significant correlation between Solidarity and Change success. Similarly (whilst not significant) there is a negative relationship between Sociability and success. Table 12 shows an analysis (using partial correlations) between the leadership groupings and change success in both high Solidarity and high Sociability cultures.

**Table 12: Partial Correlations with Solidarity and Sociability
(n=48)**

Correlations				Correlations			
Control Va			final panel	Control Va			final panel
			success rating				success rat
Solidarity	Shaping	Correlatio	-0.362	Sociability	Shaping	Correlatio	-0.373
		Significan	0.020			Significan	0.016
	Framing	Correlation	0.001		Framing	Correlation	-0.058
		Significanc	0.994			Significanc	0.718
	Creating	Correlatio	-0.396		Creating	Correlatio	0.426
		Significan	0.010			Significan	0.005
	Framcap	Correlatio	0.536		Framcap	Correlatio	0.570
		Significan	0.000			Significan	0.000

From this analysis it is evident that, whilst Sociability is negatively related to change success, Framcap leadership within such a culture can contribute to success at a significant level. Within high Solidarity cultures again Framcap leadership contributes significantly to success. This again reinforces the powerful role of Framcap. In high Solidarity cultures Creating also contributes significantly to success which provides some support for our 2004 study. Once again the negative impact of Shaping is reinforced.

An examination of the impact of contextual, variables on the relationship between culture and success (using partial correlations) revealed no statistically significant results. This does indicate that the culture of an organisation may be important for change success across all contexts.

D. Change Approaches

In our previous studies (2003/4) we explored the relationship between Change Approaches and Change Success. In the current study data on Change Approach was only collected at the categoric level. However, due to the distribution of the four approaches we were unable to explore the relationship between approach and success using non-parametric statistical tests. In order to obtain some insights into potential relationships between approach and success a series of independent sample t-tests were conducted. The results of these analyses are shown in Table 13.

Table 13: Change Approaches and Success - Independent Samples t-Test (n=60)

						Independent Samples Test					
Group Statistics						Levene's Test for Equality of Variances		t-test for Equality of Means			
	Approach	N	Mean	Std. Deviation	Std. Error Mean		F	Sig.	t	df	Sig. (2-tailed)
final panel	1	8	3.10	1.12	0.40	Equal variances assumed	4.400	0.042	-2.744	43.000	0.009
success rate	2	37	3.89	0.63	0.10	Equal variances not assumed			-1.912	7.978	0.092
	1	8	3.10	1.12	0.40	Equal variances assumed	0.260	0.621	0.419	10.000	0.684
	3	4	2.83	0.88	0.44	Equal variances not assumed			0.457	7.670	0.660
	1	8	3.10	1.12	0.40	Equal variances assumed	0.073	0.790	-1.458	17.000	0.163
	4	11	3.80	0.94	0.28	Equal variances not assumed			-1.416	13.524	0.179
	2	37	3.89	0.63	0.10	Equal variances assumed	0.703	0.407	3.073	39.000	0.004
	3	4	2.83	0.88	0.44	Equal variances not assumed			2.329	3.339	0.093
	2	37	3.89	0.63	0.10	Equal variances assumed	4.425	0.041	0.381	46.000	0.705
	4	11	3.80	0.94	0.28	Equal variances not assumed			0.307	12.770	0.764
	3	4	2.83	0.88	0.44	Equal variances assumed	0.198	0.664	-1.775	13.000	0.099
	4	11	3.80	0.94	0.28	Equal variances not assumed			-1.835	5.710	0.119

Approach: 1=Directive; 2= Master; 3= Self-Assembly; 4= Emergent

From this table it is evident that Master Change is more successful than either Directive or Self-Assembly. In addition Emergent change is more successful than Self-Assembly. Whilst not being as compelling evidence as encountered in our earlier studies there is some reinforcement of the findings.

E. Sector Differences

Data in this study were provided by Private, Public and “Third” sector organisations. The differences between the sectors were explored through a series of independent samples t-tests. The results of these analyses are shown in Tables 14–16.

Table 14: Independent Samples t-test: Public vs Private Sectors

Group Stat	Public vs Private				Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Sector	N	Mean	Std. Deviat			F	Sig.	t	df	Sig. (2-taile
SH1 Pct	1	9	5.37	6.53		Equal variances assumed	0.404	0.528	-0.971	49.000	0.336
	2	42	8.58	9.40		Equal variances not assumed			-1.227	16.066	0.238
SH2 Pct	1	9	3.18	5.96	SH1 Pct	Equal variances assumed	5.420	0.024	1.160	49.000	0.252
	2	42	1.75	2.56		Equal variances not assumed			0.707	8.644	0.498
SH3 Pct	1	9	2.94	2.95	SH2 Pct	Equal variances assumed	2.931	0.093	-0.808	49.000	0.423
	2	42	4.14	4.20		Equal variances not assumed			-1.014	15.874	0.326
SH4 Pct	1	9	1.13	2.07	SH3 Pct	Equal variances assumed	3.932	0.053	-1.543	49.000	0.129
	2	42	4.36	6.16		Equal variances not assumed			-2.748	39.438	0.009
FR1 Pct	1	9	3.80	4.04	SH4 Pct	Equal variances assumed	0.031	0.860	-0.881	49.000	0.383
	2	42	5.25	4.54		Equal variances not assumed			-0.951	12.731	0.359
FR2 Pct	1	9	2.65	2.61	FR1 Pct	Equal variances assumed	1.597	0.212	-2.550	49.000	0.014
	2	42	6.75	4.64		Equal variances not assumed			-3.638	20.688	0.002
FR3 Pct	1	9	2.78	3.33	FR2 Pct	Equal variances assumed	2.879	0.096	-0.548	49.000	0.586
	2	42	3.69	4.72		Equal variances not assumed			-0.685	15.777	0.503
CR1 Pct	1	9	8.83	6.24	FR3 Pct	Equal variances assumed	0.177	0.676	-1.795	49.000	0.079
	2	42	13.37	7.00		Equal variances not assumed			-1.936	12.717	0.075
CR2 Pct	1	9	5.68	6.97	CR1 Pct	Equal variances assumed	0.290	0.593	-2.279	49.000	0.027
	2	42	12.78	8.74		Equal variances not assumed			-2.642	13.998	0.019
FC1 Pct	1	9	12.97	6.38	CR2 Pct	Equal variances assumed	0.003	0.955	2.325	49.000	0.024
	2	42	7.41	6.53		Equal variances not assumed			2.361	11.881	0.036
FC2 Pct	1	9	23.71	13.52	FC1 Pct	Equal variances assumed	1.434	0.237	3.434	49.000	0.001
	2	42	12.02	8.18		Equal variances not assumed			2.498	9.294	0.033
FC3 Pct	1	9	16.91	7.47	FC2 Pct	Equal variances assumed	0.170	0.682	1.970	49.000	0.055
	2	42	11.19	7.99		Equal variances not assumed			2.060	12.261	0.061
FC4 Pct	1	9	10.05	11.22	FC3 Pct	Equal variances assumed	6.140	0.017	0.475	49.000	0.637
	2	42	8.73	6.59		Equal variances not assumed			0.339	9.217	0.742
Shaping	1	9	3.16	3.14	FC4 Pct	Equal variances assumed	0.066	0.798	-1.233	49.000	0.223
	2	42	4.70	3.47		Equal variances not assumed			-1.318	12.579	0.211
Framing	1	9	3.08	2.87	Shaping	Equal variances assumed	0.006	0.940	-2.217	49.000	0.031
	2	42	5.23	2.59		Equal variances not assumed			-2.073	10.978	0.062
Creating	1	9	7.26	6.04	Framing	Equal variances assumed	0.010	0.922	-2.555	49.000	0.014
	2	42	13.07	6.23		Equal variances not assumed			-2.609	11.950	0.023
Framcap	1	9	15.91	4.38	Creating	Equal variances assumed	0.002	0.962	3.803	49.000	0.000
	2	42	9.84	4.34		Equal variances not assumed			3.782	11.626	0.003
Success ra	1	9	3.44	2.01	Framcap	Equal variances assumed	13.917	0.000	-1.435	49.000	0.158
	2	42	4.02	0.81		Equal variances not assumed			-0.851	8.568	0.418
					Success rating						

Table 15: Independent Samples t-test: Public vs "Third" Sectors

Group Statistics					Public Vs Other		Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means	
	Sector	N	Mean	Std. Deviation			F	Sig.	t	df	Sig. (2-tailed)	
SH1 Pct	1	9	5.37	6.53	SH1 Pct	Equal variances assumed	3.408207	0.083457	-1.399	16.000	0.181	
	3	9	12.44	13.70		Equal variances not assumed			-1.399	11.455	0.188	
SH2 Pct	1	9	3.18	5.96	SH2 Pct	Equal variances assumed	2.385373	0.142023	1.077	16.000	0.297	
	3	9	0.85	2.56		Equal variances not assumed			1.077	10.862	0.305	
SH3 Pct	1	9	2.94	2.95	SH3 Pct	Equal variances assumed	5.310797	0.034934	-2.628	16.000	0.018	
	3	9	11.90	9.80		Equal variances not assumed			-2.628	9.439	0.026	
SH4 Pct	1	9	1.13	2.07	SH4 Pct	Equal variances assumed	29.4362	5.61E-05	-2.377	16.000	0.030	
	3	9	6.41	6.34		Equal variances not assumed			-2.377	9.687	0.040	
FR1 Pct	1	9	3.80	4.04	FR1 Pct	Equal variances assumed	1.897438	0.18733	1.379	16.000	0.187	
	3	9	1.61	2.53		Equal variances not assumed			1.379	13.452	0.190	
FR2 Pct	1	9	2.65	2.61	FR2 Pct	Equal variances assumed	0.002434	0.961264	0.696	16.000	0.496	
	3	9	1.75	2.90		Equal variances not assumed			0.696	15.826	0.496	
FR3 Pct	1	9	2.78	3.33	FR3 Pct	Equal variances assumed	8.189157	0.011305	-0.582	16.000	0.569	
	3	9	4.22	6.58		Equal variances not assumed			-0.582	11.849	0.571	
CR1 Pct	1	9	8.83	6.24	CR1 Pct	Equal variances assumed	0.760177	0.396168	1.690	16.000	0.110	
	3	9	4.44	4.67		Equal variances not assumed			1.690	14.820	0.112	
CR2 Pct	1	9	5.68	6.97	CR2 Pct	Equal variances assumed	1.37384	0.258311	-2.044	16.000	0.058	
	3	9	14.24	10.45		Equal variances not assumed			-2.044	13.942	0.060	
FC1 Pct	1	9	12.97	6.38	FC1 Pct	Equal variances assumed	1.326235	0.266395	-0.461	16.000	0.651	
	3	9	14.65	8.88		Equal variances not assumed			-0.461	14.517	0.652	
FC2 Pct	1	9	23.71	13.52	FC2 Pct	Equal variances assumed	0.127087	0.726129	2.666	16.000	0.017	
	3	9	9.13	9.31		Equal variances not assumed			2.666	14.194	0.018	
FC3 Pct	1	9	16.91	7.47	FC3 Pct	Equal variances assumed	0.471572	0.502097	1.451	16.000	0.166	
	3	9	11.24	9.04		Equal variances not assumed			1.451	15.448	0.167	
FC4 Pct	1	9	10.05	11.22	FC4 Pct	Equal variances assumed	1.668324	0.214831	0.653	16.000	0.523	
	3	9	7.13	7.35		Equal variances not assumed			0.653	13.792	0.524	
Shaping	1	9	3.16	3.14	Shaping	Equal variances assumed	0.197945	0.662344	-2.758	16.000	0.014	
	3	9	7.90	4.10		Equal variances not assumed			-2.758	14.974	0.015	
Framing	1	9	3.08	2.87	Framing	Equal variances assumed	0.326165	0.575861	0.467	16.000	0.647	
	3	9	2.53	2.11		Equal variances not assumed			0.467	14.698	0.648	
Creating	1	9	7.26	6.04	Creating	Equal variances assumed	0.048304	0.82882	-0.704	16.000	0.491	
	3	9	9.34	6.51		Equal variances not assumed			-0.704	15.910	0.491	
Framcap	1	9	15.91	4.38	Framcap	Equal variances assumed	0.649739	0.432024	2.943	16.000	0.010	
	3	9	10.53	3.29		Equal variances not assumed			2.943	14.861	0.010	
Success ra	1	9	3.44	2.01	Success ra	Equal variances assumed	3.950569	0.066779	-0.685	14.000	0.504	
	3	7	4.00	0.82		Equal variances not assumed			-0.754	11.097	0.466	

Table 16: Independent Samples t-test: Private vs "Third" Sectors

Group Statistics						Independent Samples Test						
		Private vs Other						Levene's Test for Equality of Variances		t-test for Equality of Means		
Sector	N	Mean	Std. Deviation			F	Sig.	t	df	Sig. (2-tailed)		
SH1 Pct	2	42	8.58	9.40	SH1 Pct	Equal variances assumed	2.40847	0.127116	-1.030	49.000	0.308	
	3	9	12.44	13.70		Equal variances not assumed			-0.807	9.676	0.439	
SH2 Pct	2	42	1.75	2.56	SH2 Pct	Equal variances assumed	0.877704	0.353426	0.953	49.000	0.345	
	3	9	0.85	2.56		Equal variances not assumed			0.953	11.691	0.360	
SH3 Pct	2	42	4.14	4.20	SH3 Pct	Equal variances assumed	8.770201	0.004711	-3.833	49.000	0.000	
	3	9	11.90	9.80		Equal variances not assumed			-2.333	8.640	0.046	
SH4 Pct	2	42	4.36	6.16	SH4 Pct	Equal variances assumed	0.813841	0.3714	-0.905	49.000	0.370	
	3	9	6.41	6.34		Equal variances not assumed			-0.888	11.470	0.393	
FR1 Pct	2	42	5.25	4.54	FR1 Pct	Equal variances assumed	2.027146	0.160847	2.315	49.000	0.025	
	3	9	1.61	2.53		Equal variances not assumed			3.313	20.855	0.003	
FR2 Pct	2	42	6.75	4.64	FR2 Pct	Equal variances assumed	1.604962	0.21119	3.092	49.000	0.003	
	3	9	1.75	2.90		Equal variances not assumed			4.161	18.148	0.001	
FR3 Pct	2	42	3.69	4.72	FR3 Pct	Equal variances assumed	3.320785	0.074515	-0.281	49.000	0.780	
	3	9	4.22	6.58		Equal variances not assumed			-0.226	9.835	0.826	
CR1 Pct	2	42	13.37	7.00	CR1 Pct	Equal variances assumed	1.517407	0.223891	3.641	49.000	0.001	
	3	9	4.44	4.67		Equal variances not assumed			4.713	16.805	0.000	
CR2 Pct	2	42	12.78	8.74	CR2 Pct	Equal variances assumed	0.586272	0.447537	-0.439	49.000	0.663	
	3	9	14.24	10.45		Equal variances not assumed			-0.390	10.536	0.704	
FC1 Pct	2	42	7.41	6.53	FC1 Pct	Equal variances assumed	2.130138	0.150809	-2.827	49.000	0.007	
	3	9	14.65	8.88		Equal variances not assumed			-2.314	9.934	0.043	
FC2 Pct	2	42	12.02	8.18	FC2 Pct	Equal variances assumed	0.589805	0.44618	0.941	49.000	0.351	
	3	9	9.13	9.31		Equal variances not assumed			0.865	10.810	0.406	
FC3 Pct	2	42	11.19	7.99	FC3 Pct	Equal variances assumed	0.947001	0.335264	-0.017	49.000	0.987	
	3	9	11.24	9.04		Equal variances not assumed			-0.015	10.840	0.988	
FC4 Pct	2	42	8.73	6.59	FC4 Pct	Equal variances assumed	0.383495	0.538607	0.650	49.000	0.519	
	3	9	7.13	7.35		Equal variances not assumed			0.605	10.936	0.557	
Shaping	2	42	4.70	3.47	Shaping	Equal variances assumed	0.105737	0.746435	-2.431	49.000	0.019	
	3	9	7.90	4.10		Equal variances not assumed			-2.178	10.595	0.053	
Framing	2	42	5.23	2.59	Framing	Equal variances assumed	0.436194	0.512058	2.921	49.000	0.005	
	3	9	2.53	2.11		Equal variances not assumed			3.340	13.728	0.005	
Creating	2	42	13.07	6.23	Creating	Equal variances assumed	0.029712	0.863855	1.620	49.000	0.112	
	3	9	9.34	6.51		Equal variances not assumed			1.574	11.367	0.143	
Framcap	2	42	9.84	4.34	Framcap	Equal variances assumed	0.938032	0.337541	-0.453	49.000	0.653	
	3	9	10.53	3.29		Equal variances not assumed			-0.542	14.664	0.596	
Success ra	2	42	4.02	0.81	Success ra	Equal variances assumed	0.057501	0.811534	0.072	47.000	0.943	
	3	7	4.00	0.82		Equal variances not assumed			0.071	8.104	0.945	

A review of these results indicates that the Public sector group showed higher use of both Framcap overall and the elements FC1, FC2 and FC3 than the Private sector. In comparison to the “Third” sector the Public sector again showed higher use of Framcap and FC2. The Private sector showed higher use of Framing, Creating and FR2, CR1 and CR2 than the Public sector; and higher use of Framing, FR1, FR2 and CR1 than the “Third” sector. Interestingly the “Third” sector was higher on Shaping and SH3 than either the Public or Private sector. This sector was also higher on SH4 and CR2 than the Public sector and higher on FC1 than the Private sector. Thus overall it appears that the Public sector appear to demonstrate the strongest Framcap related behaviours, the Private sector the strongest Framing and Creating behaviours and the “Third” sector the strongest Shaping behaviours.

Whilst the distribution of the sample between the sectors resulted in relatively small

Table 17: Leadership/Sector Correlations

Correlations		Public Sector	Private Sector	Third Sector
		final panel	final panel	final panel
		success rate	success rate	success rate
SH1 Pct	Pearson Correlation	0.384	-0.475	-0.458
	Sig. (2-tailed)	0.308	0.001	0.215
SH2 Pct	Pearson Correlation	0.375	-0.075	0.459
	Sig. (2-tailed)	0.319	0.638	0.214
SH3 Pct	Pearson Correlation	-0.269	-0.081	-0.388
	Sig. (2-tailed)	0.485	0.609	0.302
SH4 Pct	Pearson Correlation	-0.255	-0.045	0.463
	Sig. (2-tailed)	0.507	0.779	0.209
FR1 Pct	Pearson Correlation	0.115	-0.227	0.774
	Sig. (2-tailed)	0.769	0.148	0.014
FR2 Pct	Pearson Correlation	0.025	0.148	0.623
	Sig. (2-tailed)	0.949	0.351	0.073
FR3 Pct	Pearson Correlation	0.263	0.049	-0.181
	Sig. (2-tailed)	0.493	0.757	0.641
CR1 Pct	Pearson Correlation	-0.219	0.321	-0.295
	Sig. (2-tailed)	0.571	0.038	0.441
CR2 Pct	Pearson Correlation	-0.396	-0.156	0.164
	Sig. (2-tailed)	0.292	0.324	0.674
FC1 Pct	Pearson Correlation	0.594	0.442	0.315
	Sig. (2-tailed)	0.092	0.003	0.408
FC2 Pct	Pearson Correlation	0.528	0.230	-0.220
	Sig. (2-tailed)	0.144	0.142	0.570
FC3 Pct	Pearson Correlation	0.036	0.372	0.287
	Sig. (2-tailed)	0.928	0.015	0.454
FC4 Pct	Pearson Correlation	0.385	0.190	-0.040
	Sig. (2-tailed)	0.306	0.229	0.918
Shaping	Pearson Correlation	0.273	-0.380	-0.364
	Sig. (2-tailed)	0.478	0.013	0.336
Framing	Pearson Correlation	0.163	-0.015	0.406
	Sig. (2-tailed)	0.674	0.927	0.278
Creating	Pearson Correlation	-0.342	0.290	0.026
	Sig. (2-tailed)	0.368	0.063	0.948
Framcap	Pearson Correlation	0.040	0.518	0.232
	Sig. (2-tailed)	0.918	0.000	0.547

Public and “Third” sector samples (both n=9) a very exploratory correlational analysis was conducted. (See Table 17)

From the analysis further support for the negative impact of Shaping is encountered in both the Private and “Third” sectors. Interestingly in the “Third” and Public sectors Framing behaviours appear to be the ones associated with success.

F. Relationships to Seniority

The data were briefly explored to ascertain whether or not there is a relationship between the leadership behaviours and the hierarchical level of the leader. The results of a correlational analysis are shown in Table 18.

Table 18: Correlations between Leadership and Seniority (n=60)

Correlations		Seniority	Variance
SH1 Pct	Pearson C	-0.216	0.047
	Sig. (2-tailed)	0.097	
SH2 Pct	Pearson C	0.064	
	Sig. (2-tailed)	0.626	
SH3 Pct	Pearson C	0.013	
	Sig. (2-tailed)	0.920	
SH4 Pct	Pearson C	-0.256	0.066
	Sig. (2-tailed)	0.048	
FR1 Pct	Pearson C	0.148	
	Sig. (2-tailed)	0.259	
FR2 Pct	Pearson C	0.008	
	Sig. (2-tailed)	0.954	
FR3 Pct	Pearson C	0.010	
	Sig. (2-tailed)	0.939	
CR1 Pct	Pearson C	0.101	
	Sig. (2-tailed)	0.445	
CR2 Pct	Pearson C	0.185	
	Sig. (2-tailed)	0.156	
FC1 Pct	Pearson C	0.347	0.121
	Sig. (2-tailed)	0.007	
FC2 Pct	Pearson C	0.103	
	Sig. (2-tailed)	0.433	
FC3 Pct	Pearson C	0.240	0.058
	Sig. (2-tailed)	0.065	
FC4 Pct	Pearson C	0.176	
	Sig. (2-tailed)	0.179	
Shaping	Pearson C	-0.263	0.069
	Sig. (2-tailed)	0.042	
Framing	Pearson C	0.068	
	Sig. (2-tailed)	0.607	
Creating	Pearson C	0.184	
	Sig. (2-tailed)	0.159	
Framcap	Pearson C	0.369	0.136
	Sig. (2-tailed)	0.004	

From this analysis it does appear that Shaping behaviours are negatively related to hierarchical level, indicating that such behaviours are less common at the more senior

levels. Similarly the positive correlations with Framcap behaviours indicate that these are more common at more senior levels in the sample organisations.

G. Exploring Framcap

From the earlier analyses the lack of apparent significance of FC4 was intriguing. An analysis of the relative impact of each of the four Framcap behaviours with the overall factor indicated that FC4 had the lowest correlation (see Table 19).

Table 19: Framcap Correlations (n=60)

Correlations		Framcap
FC1 Pct	Pearson Correlation	0.509
	Sig. (2-tailed)	0.000
FC2 Pct	Pearson Correlation	0.667
	Sig. (2-tailed)	0.000
FC3 Pct	Pearson Correlation	0.559
	Sig. (2-tailed)	0.000
FC4 Pct	Pearson Correlation	0.478
	Sig. (2-tailed)	0.000

A further analysis was undertaken to identify whether or not FC4 had a more notable impact when all of the FC elements were deployed (see Table 20).

Table 20: Framcap correlations with Success (n=60)

Correlations		All FC Used	Not All FC used
		final panel	final panel
		success rating	success rating
Framcap	Pearson Correlation	0.378	0.253
	Sig. (2-tailed)	0.021	0.243
FC1 Pct	Pearson Correlation	0.292	0.376
	Sig. (2-tailed)	0.079	0.077
FC2 Pct	Pearson Correlation	0.300	0.587
	Sig. (2-tailed)	0.071	0.003
FC3 Pct	Pearson Correlation	0.028	-0.388
	Sig. (2-tailed)	0.868	0.067
FC4 Pct	Pearson Correlation	0.259	0.552
	Sig. (2-tailed)	0.122	0.006

It is interesting to note that whilst FC3 does not have a significant impact when all FC elements are used it has a nearly significant negative impact when not all of the elements are used. It is also noteworthy that when all elements are not used it is FC2 and FC4 which appear to be most strongly related to success.

Given that Framcap as a construct was created as a result of analysing the combined impact of Framing and Creating in the 2004 study it was decided to compare the impact of

Framcap on success compared to the impact of a combined Framing and Creating variable in this study (see Table 21).

Table 21: Framcap vs Combined Framing and Creating (n=60)

Correlations		
		final panel
		success rating
FRCR	Pearson Correlation	0.247
	Sig. (2-tailed)	0.057
Framcap	Pearson Correlation	0.521
	Sig. (2-tailed)	0.000

Whilst this analysis indicates that the combined FRCR variable has a nearly significant relationship to change success, it reinforces the overall impact of Framcap and suggests that it adds significantly more than the combination of Framing and Creating alone.

In exploring the composition of the overall Framcap grouping it was decided to conduct an exploratory factor analysis of the four Framcap elements. The results of this are shown in Table 22.

Table 22: Factor Analysis of Framcap Elements

Component Matrix(a)			Pattern Matrix(a)		
	Component			Component	
	1	2		1	2
FC1 Pct	-0.498	0.613	FC1 Pct	0.059	0.788
FC2 Pct	0.541	0.576	FC2 Pct	0.789	0.058
FC3 Pct	0.626	0.496	FC3 Pct	0.796	-0.057
FC4 Pct	-0.588	0.539	FC4 Pct	-0.058	0.795
Extraction Method: Principal Component Analysis.			Extraction Method: Principal Component Analysis.		
a	2 components extracted.		Rotation Method: Promax with Kaiser Normalization.		
			Rotation converged in 3 iterations.		
Structure Matrix					
	Component				
	1	2			
FC1 Pct	0.048	0.787			
FC2 Pct	0.788	0.047			
FC3 Pct	0.796	-0.068			
FC4 Pct	-0.069	0.796			
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.					
Component Correlation Matrix					
Component	1	2			
1	1.000	-0.014			
2	-0.014	1.000			
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.					

Two distinct factors emerge from this analysis. Factor A comprises FC3 and FC2 and Factor B, FC1 and FC4. To an extent this helps to explain what was seen when all of the Framcap elements were not used (see above). Using these factors in a correlational regression analysis (see Tables 23 and 24) provides a potentially useful insight.

Table 23; Framcap factors correlated with success (n=60)

Correlations			
		final panel	Variance
		success rating	
FramCapA	Pearson Correlation	0.451	0.20
	Sig. (2-tailed)	0.000	
FramcapB	Pearson Correlation	0.265	0.07
	Sig. (2-tailed)	0.040	

Table 24: Framcap Factor Regressions

Model Summary									
Model	R	R Square	Adjusted R	Std. Error of	Change Statistics				
					R Square	F Change	df1	df2	Sig. F Char
1	0.526	0.277	0.251	0.727	0.277	10.900	2.000	57.000	0.000
a	Predictors: (Constant), FramcapB, FramCapA								
Coefficients(a)									
Model		Unstandardized Coeffi	Standardized	t	Sig.				
		B	Std. Error	Beta					
1	(Constant)	2.687	0.239		11.229	0.000			
	FramCapA	0.052	0.013	0.454	4.031	0.000			
	FramcapB	0.039	0.016	0.270	2.396	0.020			
a	Dependent Variable: final panel success rating								

It appears that whilst both factors are significantly related to success Factor A is the more powerful (explaining 20%) of the variance, in success and having the higher standardised B

APPENDIX 2

The organisations of leaders participating in the research

**The UK Pensions Service
One World
Shell Commercial Fuels
British Technology Group plc
Starbucks
PricewaterhouseCoopers
DeBeers
RRC Business Training
Anglican Church
Shell Latin America
Grosvenor
West Of England Partnership
The Hub
Shell Germany
Barclays
Pepsico
AVON Cosmetics
Shell Global Lubricants
Shell Manufacturing
UK Department of Work and Pensions
Scotts
Nelsonbach
Northern Foods
Rolls Royce
Nuon
Shell Global Retail
New Economics Foundation
Liverpool City Council
Proctor and Gamble
National Australia Bank
Isles of Scilly Digital Workshop
African Bank of South Africa
Barclaycard**