

**PREDICTED PATHWAYS TO RESILIENCE AND SUCCESSFUL LIVING:  
HOPE, COMPASSION AND SELF-REGULATION**

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***This thesis is presented as a partial fulfilment for the degree of Doctor of  
Psychology (Clinical)***



**Statement of Candidate**

*I certify that the work in this thesis entitled Predicted Pathways to Resilience and Successful Living: Hope, Compassion and Self-Regulation has not previously been submitted for a degree nor has it been submitted as part of the requirements for a degree to any other university or institution other than Macquarie University.*

*I also certify that the thesis is an original piece of research and it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged.*

*In addition, I certify that all information sources and literature used are indicated in the thesis.*

*The research presented in this thesis was approved by Macquarie University Ethics Review Committee, reference number: HE03NOV2006-M04911*

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# Table of Contents

<b>GLOSSARY .....</b>	<b>10</b>
<b>ABSTRACT.....</b>	<b>11</b>
<b>INTRODUCTION.....</b>	<b>13</b>
<b>LITERATURE REVIEW .....</b>	<b>16</b>
1.1. POSITIVE PSYCHOLOGY .....	16
1.1.1. <i>Arguments for an integrated comprehensive approach.</i> .....	17
1.1.2. <i>Positive Emotions.</i> .....	20
1.1.3. <i>Character Strengths.</i> .....	23
1.1.4. <i>Links between character strengths and positive emotions.</i> .....	24
1.1.5. <i>Other resources to enhance wellbeing and alleviate distress.</i> .....	27
1.1.6. <i>Integrating Psychological Strengths or Individual Difference Variables.</i> .....	30
1.1.7. <i>Implications and Interventions.</i> .....	31
1.1.8. <i>Optimal Human Functioning.</i> .....	35
1.2. MODELS OF OPTIMAL FUNCTIONING .....	39
1.2.1. <i>Sheldon's model.</i> .....	40
1.2.2. <i>Franklin's model.</i> .....	45
1.3. CONCEPTUALISATION OF FRANKLIN'S (2006, 2009) MODEL: OUTCOMES AND ANTECEDENTS .....	51
1.3.1. <i>Definitions.</i> .....	51
1.3.2. <i>Wellbeing and Related Constructs.</i> .....	52
1.3.3. <i>Resilience.</i> .....	53
1.3.4. <i>Selection of Antecedent Elements within Franklin's Domains.</i> .....	55
1.3.5. <i>Goal Motivated Adaptive Learning.</i> .....	57
1.3.6. <i>Personal Skills Domain / Understanding Self.</i> .....	59
1.3.6.1. <i>Self compassion.</i> .....	60
1.3.6.2. <i>Self esteem.</i> .....	61
1.3.6.3. <i>Self control / Self - regulation.</i> .....	63
1.3.6.4. <i>Proposed interaction of the constructs at the Personal skills level.</i> .....	64
1.3.7. <i>People Skills Domain/ Understanding Others.</i> .....	65
1.4. SUMMARY AND THE PRESENT RESEARCH .....	66
1.4.1. <i>Aims and hypotheses.</i> .....	68
1.4.1.1. <i>Specific Hypotheses</i> .....	69
1.4.1.2. <i>Research Questions</i> .....	72
<b>CHAPTER TWO.....</b>	<b>73</b>
<b>2. METHOD.....</b>	<b>73</b>
2.1 PARTICIPANTS.....	73
2.2 PROCEDURE .....	74
2.3 MEASURES .....	75
2.3.1 <i>Level One: Adaptive Learning</i> .....	77
2.3.1.1 <i>Mindfulness</i> .....	77
2.3.1.2 <i>Curiosity</i> .....	77
2.3.1.3 <i>Hope</i> .....	78
2.3.1.4 <i>Psychological Flexibility</i> .....	78
2.3.2 <i>Level Two: Personal Skills</i> .....	79
2.3.2.1 <i>Self-esteem</i> .....	79
2.3.2.2 <i>Self Compassion</i> .....	79
2.3.2.3 <i>Self Control</i> .....	80
2.3.3 <i>Level Three: People Skills</i> .....	80
2.3.3.1 <i>Empathy</i> .....	80
2.3.3.2 <i>Interpersonal Competence</i> .....	81
2.3.4 <i>Outcomes: Successful Living in the World</i> .....	81
2.3.4.1 <i>Resilience</i> .....	81
2.3.4.2 <i>Life Satisfaction and Subjective Wellbeing</i> .....	82
2.3.4.3 <i>Happiness</i> .....	82
2.3.4.4 <i>Satisfaction with Relationships</i> .....	82
2.3.4.5 <i>Psychological Distress</i> .....	83
2.4 DATA PREPARATION.....	83
2.5 ANALYTIC STRATEGY .....	84

<b>3. RESULTS.....</b>	<b>91</b>
3.1 DESCRIPTIVE STATISTICS.....	91
SEE GLOSSARY FOR TERMS .....	92
3.2 HYPOTHESIS ONE.....	93
<i>Key Observations from Table 3.2</i> .....	93
Summary: Hypothesis one.....	95
3.3 HYPOTHESIS TWO .....	95
3.3.1 <i>Employment</i> .....	96
3.3.2 <i>Income</i> .....	97
3.3.3 <i>Years of Education</i> .....	97
3.3.4 <i>Age, Gender and Marital Status Relationships</i> .....	97
Summary: Hypothesis Two .....	99
3.4 HYPOTHESIS THREE .....	101
3.5 HYPOTHESIS FOUR: INTERCORRELATIONS OF VARIABLES WITHIN EACH LEVEL OF FRANKLIN'S MODEL.....	103
3.5.1 <i>Level One (Adaptive learning) Intercorrelations</i> .....	104
3.5.2 <i>Level Two (Personal Skills- Understanding Self) Intercorrelations</i> .....	106
3.5.3 <i>Level Three People Skills</i> .....	106
3.5.4 <i>Outcome Variables (Psychological Wellbeing and Distress)</i> .....	107
3.6 HYPOTHESIS FIVE:.....	108
3.6.1 <i>Measurement Models</i> .....	108
3.7 STRUCTURAL MODELS .....	110
3.7.1 <i>Structural Model of Level One (Adaptive learning)</i> .....	110
3.7.2 <i>Structural Model of Personal Skills</i> .....	113
3.7.3 <i>Structural Model of People Skills Level Three</i> .....	115
Summary: Hypothesis Five: .....	116
3.8 HIERARCHICAL STRUCTURAL MODELLING .....	117
3.9 MULTIPLE REGRESSION ANALYSES.....	118
3.9.1 <i>Incremental Value of Adaptive learning, Personal Skills and People Skills in         Predicting Psychological Distress and Wellbeing</i> .....	119
3.9.2 <i>Backwards Stepwise Regression: Preserving the structure of Franklin's model ....</i>	124
3.9.3 <i>Models ignoring the hierarchy, all variables entered into the regression analysis         using stepwise selection</i> .....	128
3.9.4 <i>Comparing the three analyses</i> .....	130
<b>CHAPTER 4 .....</b>	<b>133</b>
<b>DISCUSSION .....</b>	<b>133</b>
4.1 RESPONSES TO PRELIMINARY QUESTIONS.....	135
4.2 UNIQUE AND INDEPENDENT CONTRIBUTION OF STRENGTHS TO PSYCHOLOGICAL WELLBEING AND DISTRESS .....	152
4.3 IMPLICATIONS.....	157
4.4 LIMITATIONS.....	160
4.5 DIRECTION FOR FUTURE RESEARCH .....	162
4.6 STRENGTHS.....	163
4.7 CONCLUSION .....	164
<b>REFERENCES .....</b>	<b>165</b>
<b>APPENDIX A.....</b>	<b>182</b>
<b>APPENDIX B.....</b>	<b>222</b>



## Table of Figures

FIG 1.1 LEVELS OF SHELDON’S (2004) MODEL OF OPTIMAL FUNCTIONING .....	42
FIG 1.2 PREPARATION ACTION AND ADAPTIVE LEARNING (PAAL) MODEL (FRANKLIN, 2009) .....	47
FIG 1.3 DEVELOPMENTAL HIERARCHY FOR SUCCESS (FRANKLIN, 2006) .....	48
FIG 1.4 FRANKLIN’S REVISED MODEL .....	50
FIG 1.5 SUGGESTED COMPETENCIES AT EACH LEVEL .....	56
FIG 2 1 DEPENDENT AND INDEPENDENT VARIABLES ASSESSED IN THE EVALUATION OF FRANKLIN’S MODEL .....	76
FIG 3.1 SCATTERPLOT PF ACTION AND H AGENCY .....	105
FIG 3.2 SCATTERPLOT OBSERVE AND PF WILLINGNESS .....	105
FIG 3 3 ADAPTIVE LEARNING .....	111
FIG 3 4 MODIFIED ADAPTIVE LEARNING MODEL.....	112
FIG 3 5 MODIFIED ADAPTIVE LEARNING .....	113
FIG 3 6 PERSONAL SKILLS (UNDERSTANDING SELF) .....	114
FIG 3 7 STRUCTURAL MODEL FOR LEVEL TWO, PERSONAL SKILLS .....	115
FIG 3 8 PEOPLE SKILLS .....	116
FIG 3 9 STRUCTURAL MODEL FOR LEVEL THREE, PEOPLE SKILLS .....	116

## Glossary

<b>Level One – Adaptive Learning</b>	<b>Abbreviation</b>
<b>Kentucky Inventory of Mindfulness Scale (KIMS).</b>	
KIMS Observe	Observe
KIMS Describe	Describe
KIMS Act with awareness	Aware action
KIMS Accept without judgment	Acceptance
<b>State Hope Scale -total</b>	
Hope Pathways	H Pathways
Hope Agency	H Agency
<b>Psychological flexibility</b>	
Psychological Flexibility Action	PF Action
Psychological Flexibility Willingness	PF Willingness
<b>Curiosity Scale Total</b>	
Curiosity Explore	C Explore
Curiosity Absorption	C Absorption
<b>Level Two – Personal Skills</b>	
<b>Self Control Scale</b>	S control
<b>Self Compassion Total</b>	
Kindness	SC Kindness
Common humanity	SC Humanity
Mindfulness	SC mindfulness
Judgement	SC judgement
Isolation	SC isolation
Over identification	SC overidentitfication
<b>Rosenberg Self Esteem Scale</b>	
<b>Self Esteem</b>	<b>Self Esteem</b>
<b>Level Three- People Skills</b>	
Empathic concern	Empathic conc
Perspective taking	Perspective taking
<b>Interpersonal Competence (IC)</b>	
Interpersonal Competence Initiation	IC Initiation
Interpersonal Competence Negative assertion	IC Neg assertion
Interpersonal Competence Disclosure	IC Disclosure
Interpersonal Competence Emotional support	IC Emot support
Interpersonal Competence Conflict management	IC Conf management
<b>Level Four - Success Outcome</b>	
<b>Life Satisfaction Scale</b>	
<b>Perceived Happiness</b>	
<b>Perceived Satisfaction with Relationships</b>	
<b>Resilience Total</b>	
Perception of self	
Planned future	
Structured style	
Social competence	
Family cohesion	
Social resources	
<b>Psychological Distress</b>	
Depression	
Anxiety	
Stress	

## **Abstract**

Given the rising cost of mental illness, there is a clear need for evidence-based models of wellbeing to guide therapy and community interventions. Franklin (2006, 2009) has proposed a developmental model of success and happiness that incorporates four higher order domains; Goal motivated adaptive learning skills, Personal, People and Work-life skills. The first major aim of this research was to test Franklin's model. It was beyond the scope of this study to test all possible constructs proposed at each level. Therefore, the selection of constructs to test was guided by positive psychology research, acceptance and commitment therapy (ACT) and empirical evidence demonstrating that the skills underlying the construct could be developed. Constructs conceptualised to belong to the Goal motivated adaptive learning domain included hope, psychological flexibility, curiosity and mindfulness. Those within the Personal skills level included self esteem, self compassion and self control. Finally, constructs tested at the People skills level included interpersonal competence, empathic concern and perspective taking.

To determine the applicability of the selected constructs for the model in predicting psychological wellbeing and distress, correlational analyses revealed that, with some exceptions, most constructs were positively associated with psychological wellbeing and negatively associated with psychological distress. Further confirmation of their applicability was gained from testing their discriminant validity.

Franklin's model was tested via structural equation modelling, comparing the model's predicted variance-covariance structure to that observed in the sample, i.e. testing how well the model fits the observed data. The results suggest that while the model broadly reproduced both measurement and structural elements of the data, it failed in significant detail with no model fit metric being satisfactory without modification of model detail.

Hierarchical multiple regression of each outcome supported the hypothesized incremental validity of the levels of Franklin's model from lower to higher order skills with each higher level explaining statistically significant additional variance above lower levels. As would be predicted by the model, goal motivated adaptive learning explained the most variance in

all outcomes. However, while these findings broadly support the structure of Franklin's model, it was also found that if the hierarchy was completely ignored through backwards stepwise regression the statistically significant predictive variables were generally unchanged. This argues against the importance of the level hierarchy of the model.

Regression modelling supported the primacy of goal motivated adaptive learning and to a lesser degree personal skills as being important to all psychological wellbeing and distress outcomes. The evidence in support of the final level, people skills, was both weaker and less consistent across both analysis approaches (hierarchical and backwards stepwise) and outcomes.

The second major aim of this research was to examine the relative importance of the selected skills in promoting wellbeing as measured by self-report of happiness, life satisfaction, relationship satisfaction and resilience; as well as buffering against psychological distress measured by depression, anxiety and stress.

Reviewing the relative importance of each skill, generally the Agency component of hope was the major contributor to psychological wellbeing outcomes and in buffering depression. The Action component of psychological flexibility was a strong contributor to resilience and buffering psychological distress. Self esteem and two components of self compassion - Isolation and Overidentification were relevant. Isolation was a strong contributor to the prediction of wellbeing and depression whereas Overidentification was a strong contributor in the prediction of anxiety and stress. The only consistent contributor at the people skills level was the Initiation component of interpersonal competence in predicting resilience. These findings suggest a more parsimonious model for the prediction of global levels of psychological wellbeing and distress incorporates the Adaptive learning constructs of hope and psychological flexibility, and the Personal skill constructs of self esteem and self compassion. A model revised along these lines would need further validation however Franklin's model does offer a constructive avenue for future research and prioritisation of skills to promote wellbeing and resilience.

## Introduction

Given the rising cost of depression on society, the need for evidence-based interventions to help people build resilience and wellbeing is evident; however, few models encompassing the skills necessary for *positive* adjustment are available. The purpose of this study is to begin to fill this gap by testing the validity of a model that offers an integrated and comprehensive approach to developing resilience and enhancing wellbeing. Australians have reported decreasing levels of happiness since 1981 (World Values Survey). Our current fast-paced society has increased demands on individuals and families. The pressure to work is high, with increased work hours, decreased job security, and work stress, leading 40 – 45% of Australians to claim that this pressure results in decreased community and family connection, poorer family functioning and increased health problems (Pocock, 2008; Skinner & Pocock, 2008). Work related stress can also result in longer time off work, which has a significant financial impact on the community. The cost of mental illness in Australia is estimated to be \$20 billion dollars annually (ABS, 2007). The World Health Organisation (WHO) estimated that, worldwide, depression would be the second highest cause of disability across all age groups by 2010, highlighting the need to enhance wellbeing, and develop resilience to actively cope with these daily demands.

Considerable research attention has been directed towards resilience and wellbeing. That attention is no doubt in part due to the complex nature of these concepts and the varied related definitions and operationalising of the “resilient, healthy individual”. The World Health Organisation emphasises that:

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Mental health is a fundamental component of health through which one realizes one’s own cognitive, affective and relational abilities. A healthy mental disposition allows one to cope well with life’s challenges, to work productively and to make a positive contribution to one’s community” (WHO, 2001, p1).

This definition of mental health argues that resilience (the ability to cope with life’s challenges), the ability to work, and be involved in the community are indicators of wellbeing and positive life adjustment. Franklin (2009) contends that this positive life adjustment can be broadly viewed as success.

Nevertheless, if as previously stated, work-related pressure and stress is related to decreased happiness, disconnection from family and community and contributes to poor life adjustment, then knowledge of the qualities held by resilient individuals who cope positively with the demands of modern daily life can guide preventative measures to support other individuals and the community as a whole.

What has been lacking in the literature is a meta-model that helps us to understand the development of these qualities identifying positive characteristics that increase and sustain wellbeing. By understanding these qualities, it is hoped that interventions can be designed that will increase and sustain wellbeing and decrease psychological distress. This research is one of the first to quantitatively evaluate such a meta-model.

Although models that identify individual strengths and cognitive vulnerabilities associated with positive adaptive functioning (Antonovsky, 1979; Ryff, 1989; Sheldon, 2004) and psychological distress (Brown,

O’Leary & Barlow, 2001) do exist, the study of factors associated with wellbeing has arisen from a disparate body of research. This research includes, for example, humanistic psychologists such as Maslow and Rogers; more recent theorists such as Diener, Keyes, Ryff, Fredrickson, and Sheldon; and philosophers including Socrates, Plato and John Stuart Mill (Eid & Larsen, 2008). The “differences in emphasis and interpretation” offered by these theorists (Linley, Joseph, Harrington & Wood, 2006, p5), particularly in the development of wellbeing, has led to criticism of positive psychology and arguably differentiates the study of wellbeing from the research that grounds and informs clinical psychology. This research attempts to bridge this gap and situate the study of wellbeing within a strong theoretical framework. The research presented here is exploratory and aims to test a model that identifies the personal characteristics that are associated with self-reported happiness, life satisfaction and resilience as well as those characteristics that will buffer against depression, anxiety and stress. A parallel aim is to examine the relative importance of the personal characteristics within this model on psychological outcomes. For the purpose of this research, the term “wellbeing” used in these studies incorporates the domains outlined in WHO’s definition of mental health (2001), and is defined as resilience, happiness, connection and positive adaptive functioning.

Having outlined the aim of the current research, the next step is to situate the research in context. A brief review of the literature underlying the foundations of this research will be undertaken in Section 1.1. A broad range of ideas will be examined, including positive psychology’s emphasis

on positive emotions, individual strengths and character strengths (Peterson & Seligman, 2004). Other important variables associated with wellbeing; the implications of these findings; and interventions that have been successfully implemented will also be briefly reviewed.

In Section 1.2 research into optimal functioning and proposed models that could guide further research in the promotion and development of resilience and wellbeing will be presented. In Section 1.3, the logic behind the conceptualisation of Franklin's (2006) model and the elements selected to be tested for the present study will be outlined. Finally, the aims and specific predictions related to quantitatively evaluating the model will be presented in Section 1.4.

## **Literature Review**

### **1.1. Positive Psychology**

The study of wellbeing and what makes a "good life" has a lengthy research tradition contributing to the rise of positive psychology (for review, see Cowen & Kilmer, 2002; Linley et al, 2006). Positive psychology has brought various lines of research together under a broad umbrella incorporating the scientific study of positive emotions, individual strengths, and institutions that enable wellbeing and optimal functioning. Despite critics' scepticism about "happiology" and its possible shortfalls (Cowen & Kilmer, 2002; Held, 2004; Lazarus, 2003; Petersen, 2006), positive psychology has kept pace with the WHO's definition of mental health, recognising that health is not merely the absence of disease (Linley and Joseph, 2004; Seligman & Csikszentmihalyi, 2000). Positive psychology values the factors associated



with flourishing, thriving and functioning optimally, without negating the role of negative emotions or cognitive vulnerabilities in mental illness or psychological distress (Gable & Haidt, 2005; Keyes, 2002). By studying scientifically the variables associated with what people do well; what type of organisations enable and empower people to do well; and the value of positive emotions, psychologists are gaining evidence about what factors not only alleviate distress but also enhance people's lives (Huta & Hawley, 2008; Linley & Joseph, 2004). Converging lines of evidence demonstrate the value of a comprehensive approach towards psychological functioning through the examination of both positive and negative phenomena and outcomes (Kashdan, 2007). This research joins the emerging literature that examines how the factors associated with wellbeing *and* distress relate to each other (Chang & Sanna, 2001; Huppert, 2009; Keyes, 2009; Richman, Kubzansky, Maselko, Kawachi, Choo & Bauer, 2005).

#### **1.1.1. Arguments for an integrated comprehensive approach.**

Integrated approaches incorporating positive and negative phenomena are invaluable. Firstly, research has shown that positive traits, behaviours and other phenomena make a unique contribution towards explaining variance in specific outcomes such as health or depression over and above negative phenomena (Huta & Hawley, 2008; Pennix et al, 1998; Pressman & Cohen, 2006). This has been particularly evident in studies of organisational psychology where the field of positive organisational behaviour (POB) has specifically focused on a comprehensive perspective of organisational and individual functioning (Luthans, 2002). POB researchers have studied dysfunction and optimal functioning, arguing that different mechanisms

underlie both outcomes (Bakker & Schaufeli, 2008). Studies have shown that specific positive behaviours such as positive communication and supportive feedback distinguish flourishing from languishing work teams (Fredrickson & Losada, 2005). Furthermore, job resources such as social support, autonomy and an environment that fosters personal growth and development have been found to buffer against job demands that would invoke psychological and physical costs that could lead to burnout (Bakker, Demouti & Euwema, 2005).

Secondly, Kashdan (2007) argues that regulatory strategies that promote positive outcomes or processes appear to be independent from those that are related to negative outcomes or processes. For example, in a study that examined the relationship between psychological strengths, that is beneficial attributes, and vulnerabilities, correlations revealed that strengths and vulnerabilities did not appear to be opposite; each offering a unique contribution to outcomes measuring depression, self esteem and meaning in life (Huta & Hawley, 2008). Interactions between psychological strengths, such as hope and vitality and psychological vulnerabilities give further evidence for the value of an integrated comprehensive approach.

There is also ongoing debate over whether positive and negative moods lie on separate dimensions or are inversely related. Some stress and coping research shows that positive affect may co-occur with distress (for example, Folkman & Moskowitz, 2000), whereas other studies suggest that in the short term stress and happiness may be inversely related, and therefore, likely to be at opposite ends of a single dimension (Schiffrin, Rezendes, &

Nelson, 2008). In contrast, findings inconsistent with the inverse relationship between negative and positive affect have been demonstrated. One study showed that for people experiencing increased stress, it was loneliness - above and beyond depressive symptoms and hostility - that accounted for decreased happiness (Cacioppo, Hawkley, Kalil, Hughes, Waite & Thisted, 2008). These results might suggest that developing resources or strengths that promote the ability to develop social support might be as important in coping with stressful life events and increasing wellbeing as counteracting depressive symptoms. Given that individuals tend to withdraw when depressed, decreasing social contact; it is useful to understand and identify qualities that promote the ability to maintain social interaction despite experiencing negative emotions.

Thirdly, in keeping with the argument above, it is clear that one of the challenges in psychology is treatment response and relapse. Up to 50% of individuals experiencing one episode of depression experience relapse or recurrence (Burcusa & Iacono, 2007; Kessler & Walters, 1998). Comorbidity has also been implicated as a risk factor for recurrence (Burcusa & Iacono, 2007). In many instances a full recovery is not achieved despite an apparent clinical response to treatment. For example, this is evident in the case of anxiety disorders such as obsessive compulsive disorder (Bruce et al, 2005). Therapies aimed at relapse prevention are critical. Ryff and Singer (1996) argue that symptom alleviation alone may still leave individuals vulnerable to relapse because they have not been provided with the resources to enhance their wellbeing. Huta and Hawley (2008) found that three strengths - hope, appreciation of beauty and spirituality - improved recovery from

depression beyond the treatment of vulnerabilities, such as perfectionism.

Positive psychology findings can inform therapy not only to alleviate negative symptoms but also to provide strategies or tools that build resilience and hardiness, such as the ability to develop social support.

These three arguments recognise that building wellbeing is not only about alleviating or removing factors that lead to psychological distress but it is also about providing resources or skills that help an individual to develop or obtain those positive attributes that enhance their wellbeing – an important consideration for any model of wellbeing. The experience of positive emotions is one area fundamental to the experience of wellbeing and is thus examined in detail below.

### **1.1.2. Positive Emotions.**

As positive psychology has emphasised the importance of positive emotions and their relationship with wellbeing, it is important to provide some context for their inclusion in any model of success and wellbeing, particularly in Franklin's model which is the focus of the current research. Emotions include cognitive, physiological and behavioural components; are "short-lived, conscious, intense" and have a causal antecedent. Thus they differ from moods which are more diffuse, enduring, and appear to have no causal antecedent (Forgas, Wyland & Laham, 2006). Scherer (2005) argues that the components of emotion also include aspects of motivation and subjective feeling. Affect is the experiential component, or subjective feeling, of an emotion or mood - or the objective nonverbal behaviour associated with that experience (Forgas, 1995; Fridja, 1994). Researchers and lay

people alike often use the terms emotion, mood and affect interchangeably, thereby muddying conclusions that can be drawn from experimental findings, highlighting the benefits of a more comprehensive approach to the study of emotion (Beedie, Terry, Lane, 2005). For example, Forgas (2008) states that *affect* is an evolutionary signal that has adaptive function in complex social situations. He highlights that negative affect promotes more attentive and accommodative processing (checking or conforming), generating behaviour that is more likely to be externally driven, for example, in response to a perceived threat (Bless & Fiedler, 2006). In contrast, positive affect promotes assimilative processing (more strategic or flexible thinking in response to perceived opportunities) where behaviour is more internally driven (Bless & Fiedler, 2006). The finding that positive affect increases negative stereotyping (Unkelbach, Forgas & Denson, 2008) might appear to be in conflict with other findings that suggest that positive *emotions* diminish racial bias in facial recognition (Johnson & Fredrickson, 2005). Clearly, there is need to unpack this evidence to fully understand how different emotions and their display contribute to outcomes such as wellbeing through building resilience, happiness and connection.

Unlike negative emotions which are presumed to promote specific narrow physical actions (for example, fear triggers the urge to escape) (Tooby & Cosmides, 1990), Fredrickson (1998) proposed that positive emotions promote broader changes in *cognition* which in turn trigger physical or behavioural actions. Positive emotions promote broad thought-action tendencies and greater flexibility in response. Fredrickson (1998) proposed four broad families of positive emotions – joy, interest, contentment and love

– that could generate positive resources. For example, joy promotes play which provides the opportunity to build social, physical and intellectual skills that can be drawn upon at a later time. Interest generates exploration which also can increase an individual's knowledge base (Isen, 1987). Within these sets of positive emotions spanning low and high arousal states are emotions such as hope, curiosity, love, humour, gratitude, trust, confidence, amusement and happiness. Positive emotions broaden cognition and creativity, prompt more varied actions, facilitate learning, build social resources, and some studies suggest that they undo the cardiovascular effects of stress, speeding up normal homeostatic processes, thus having a direct effect on the body's physical response to stress (Falkenstein, Schiffrin, Nelson, Ford & Keyser, 2009; Fredrickson & Levenson, 1998; Fredrickson, Mancuso, Branigan & Tugade, 2000). By broadening thought-action repertoires, an individual can increase their personal resources. In the long term those resources can be drawn upon in times of need and can contribute to building resilience, a focus of the present research (Tugade & Fredrickson, 2006).

Taking a comprehensive view of emotions on physical health, negative emotions have been associated with physical illness through direct physiological activation and through negative health behaviours, such as smoking and overeating, whereas positive emotions have been associated with longevity (Danner, Snowden & Friesen, 2001), stronger immune functioning and better health practices (Davidson et al, 2003). Furthermore, in a study examining disease outcomes in 1041 patients over two years, support has been garnered specifically for the protective function of two

positive emotions, hope and curiosity, against the development of hypertension and diabetes (Richman et al, 2005). Consistent with prior research, positive emotions were associated with better health beyond the effect of negative emotions on health (Pennix et al, 1998; Pressman & Cohen, 2005).

Arguably, since positive emotions are valuable for the experience of physical health, countering the effects of stress, and also in promoting a range of cognitive and social factors associated with wellbeing and positive adaptive functioning, positive emotions are critical to any model that aims to explain the promotion of wellbeing.

### **1.1.3. Character Strengths.**

A separate line of research has focused on the benefits of character strengths in relation to increasing wellbeing (Peterson & Seligman, 2004), therefore they are valuable to consider in relation to the present research testing a meta-model of wellbeing. Character strengths are positive trait-like qualities that are ubiquitous across cultures open to development, measurable and contribute to a satisfying and meaningful life. The term “strengths” as used throughout this thesis will refer to psychological strengths which are positive or beneficial attributes and as such are more generalised than character strengths. Nevertheless, character strengths as defined by Peterson and Seligman reflect psychological strengths. Seligman (2002) argues that these character strengths may offer a way to build resilience. Twenty-four universal character strengths or virtues have been identified and are categorised into six broader families: wisdom (for

example, curiosity, creativity, perspective), courage (for example, honesty, perseverance), humanity (for example, kindness, love), justice (for example, fairness, teamwork), temperance (for example, forgiveness, self-regulation) and transcendence (for example, hope, humour). While character strengths are associated with increased life satisfaction, some studies demonstrate that strengths, such as hope, zest, love and curiosity, are more predictive of happiness and life satisfaction than strengths, such as creativity and modesty (Park, Peterson & Seligman, 2004).

Other cross-cultural studies demonstrate the ubiquity of these strengths across cultures and endorse the importance of the strengths in a similar manner. In a study including Masai, Inughuit and American participants, 88 – 100% of the respondents rated strengths such as hope, curiosity, kindness and self control as important (Biswas-Diener, 2006). Biswas-Diener suggests that the importance of different values or strengths may change across time. Studies of the important strengths endorsed after September 11, 2001 terrorist attacks rated leadership, hope and kindness as important (Peterson & Seligman, 2003). These qualities were considered important in a society coping with considerable adversity, suggesting that these qualities are particularly important in promoting resilience.

#### **1.1.4. Links between character strengths and positive emotions.**

Character strengths and positive emotions are associated with wellbeing and healthy life adjustment; therefore it is helpful to examine how they might be related. Many character strengths may also be considered positive emotions. Given that emotions comprise cognitive, physiological, behavioural, motivational and feeling elements (Forgas et al, 2006; Scherer,



2005), it would be appropriate to consider that character strengths also encompass some of these factors. Peterson and Seligman (2004) identified hope, curiosity and kindness as character strengths, just as Fredrickson (2009) argues for their cultivation. These strengths will be examined in more detail.

Hope has been associated with a variety of positive outcomes such as better health and psychological adjustment, improved problem solving skills, as well as sports, academic and job performance (Magaletta & Oliver, 1999; Peterson & Byron, 2008; Snyder et al, 2002). Peterson and Seligman (2004) suggest that hope is a transcendent strength and that it “represents a cognitive, emotional, and motivational stance towards the future” (p570). They contend that hope underpins optimism, future mindedness and having a sense of purpose. Arguably, these are characteristics that fuel action and positive coping. It could also be argued that readiness to change requires hope that change is possible. Although they suggest that hope may have a more emotional tone than perhaps, optimism, Snyder (2000, p8) refers to hope as a cognitive construct that “is the sum of perceived capabilities to produce routes to desired goals, along with the perceived motivation to use those routes”. Hope, as defined by hope theory, reflects an individual’s perceptions of their ability to formulate goals, develop ways to reach their goals, and to initiate and sustain the motivation to strive towards those goals, and as such, has two components - agency and pathways (Lopez et al, 2004). The agency component is related to but distinct from Bandura’s concept of self-efficacy, that is, an individual’s belief that that he or she can perform a specific behaviour (Magaletta & Oliver, 1999).

Curiosity from a strengths perspective (Kashdan, 2004), may be classed as a “positive emotional - motivational system” (Kashdan, Rose & Fincham, 2004). According to Silvia (2008), curiosity is associated with the appraisal of novelty-complexity and the ability to cope with those novel elements, and is linked to interest, which is associated with exploration, intrinsic motivation and information seeking. Kashdan, (2009) argues that curiosity is a growth-oriented construct that may motivate both approach and avoidance responses.

From an attention perspective, curiosity provides the drive and attentional resources to explore novel situations or stimuli necessary to increase knowledge. From a cognitive developmental perspective, curiosity enhances personal and interpersonal resources through the stimulation of exploratory behaviour which promotes social, cognitive, emotional and physical development. The enhancement of personal resources gained is, in turn, reinforcing and provides a positive sense of self. Curiosity can be viewed as “developmentally vital...an important human motive and relevant to most domains of human operation: educational, occupational, spiritual and recreational (Reio, Petrosko, Wiswell & Thongsukmag, 2006, p117). These approach responses through exploration are adaptive, as are anxiety and avoidance responses that occur when novel stimuli are appraised to be dangerous. Notwithstanding the evidence demonstrating that curiosity is positively associated with growth-oriented behaviour, life satisfaction, a sense of meaning in life, optimism, and hope (Kashdan, 2009; Kashdan &

Steger, 2007), an integrated approach to understanding the value of curiosity is valuable given the link between curiosity and avoidance.

In contrast to the motivational and cognitive stances of hope and curiosity; kindness, or similarly compassion and altruism, represents an affective response towards others that promotes helping behaviours that are not based on self-interest (Peterson & Seligman, 2004). These strengths represent an orientation away from oneself towards empathic concern for others. Kindness enhances personal interactions, just as kindness towards oneself can buffer distress when things do not go well. Self compassion, a concept that includes kindness towards self and a sense of connection to others has also been associated with positive adjustment (Neff, Kirkpatrick & Rude, 2007).

#### **1.1.5. Other resources to enhance wellbeing and alleviate distress.**

Although positive emotions and character strengths are relevant to this research that is testing a model of wellbeing, a range of other resources and approaches could be considered. Therapies endorsing acceptance and mindfulness as significant psychological strengths have been hailed as the “third wave of cognitive therapy” (Hayes, 2004; Hayes, Masuda, Bissett, Luoma & Guerrero, 2004; Kabat-Zinn, 2003). One such evidence-based therapy is Acceptance and Commitment Therapy (ACT). Mindful acceptance is targeted in ACT to generate psychological flexibility. Psychological flexibility, in turn, is viewed as the ability to be consciously present in the moment, and to adjust or persist in behaviour in order to promote action consistent with valued goals (Hayes & Strosahl, 2005). ACT details six core

processes that establish psychological flexibility: being present, acceptance, cognitive defusion (the ability to see thoughts/language as a relational process), self as context (the ability to view self independent of current experience), committed action and defining valued goals.

Psychological flexibility enables an individual to engage with experience rather than avoid unwanted or distressing experiences. Experiential avoidance is a factor in a range of psychological problems including substance abuse and eating and anxiety disorders (Cooper, Wells & Todd, 2004; Masuda, Price, Anderson & Wendell, 2010). On the other hand, experiential engagement, the willingness to experience negative emotion and the ability to act despite negative emotion, has been associated with diverse positive outcomes such as an increase in the ability to cope with work-related strain, job performance, reduced sick day usage, increased satisfaction with life and reduced seizures in patients with epilepsy (Bond & Bunce, 2000; Bond & Flaxman, 2006; Dahl, Wilson & Nilsson, 2004; Hayes et al, 2004; Lundgren, Dahl, Melin & Kies, 2006). It is also related to increased emotion regulation and decreased depression, anxiety and self-harm in a group of patients diagnosed with borderline personality disorder (Gratz & Gunderson, 2006).

Mindfulness has been defined as a state of mind where attention is focused on the present moment in an accepting, curious way (Bishop et al, 2004). Hoffmann and Asmundson (2008), viewing ACT in the context of emotion regulation, uphold that, unlike cognitive behaviour therapy (CBT), which targets antecedent emotions, ACT and other mindfulness therapies are

response-focused. Arguably then, factors such as psychological flexibility and mindfulness may be considered psychological strengths useful in coping with adversity and in the promotion of resilience and psychological wellbeing. Since the focus is not on eliminating or changing negative psychological events but on changing a person's relationship with those events and promoting valued action, these would be useful resources when the ability to adapt as necessary and to respond positively is required, particularly when the individual believes he or she has little control over some aspects of their lives.

Mindfulness-based interventions have been associated with improved psychological wellbeing, reduced stress, anxiety and depression and in countering physical health issues (Allen, Blashki, & Gullone, 2006; Baer, 2003; Carlson & Garland, 2005; Carmody & Baer, 2008; Grossman, Niemann, Schmidt, & Walach, 2004; Nyklicek & Kuijpers, 2008).

Furthermore, changes in mindfulness have been demonstrated to be associated with increased positive affect and decreased negative affect (Schroevers & Brandsma, 2010). A mindful attitude has been shown to contribute to managing labile emotions in clinical and non-clinical populations, and evidence supports the prevention of further relapse for people who have experienced three or more episodes of major depression (Ma & Teasdale, 2004; Teasdale, Moore, Hayhurst, Pope, Williams & Segal, 2002).

#### **1.1.6. Integrating Psychological Strengths or Individual Difference Variables.**

Another more integrative approach to qualities associated with wellbeing is in exploring the overlap between various qualities by examining common variance among constructs and their synergistic relationships (Judge et al, 1998; Luthans et al, 2007). In this approach, constructs that have been well-established in personality literature are examined for common variance to determine whether they might represent a latent “higher-order” construct. Many constructs as such self esteem, self efficacy, locus of control and optimism have been associated with positive outcomes and have been examined for common variance and have also been associated with positive outcomes (Luthans, Youssef, & Avolio, 2007; Judge & Hurst, 2007; Judge & Hurst 2008). One proposed higher order construct is psychological capital (Luthans et al, 2007). This construct encompasses hope, resilience, optimism and efficacy. Luthans and colleagues (2006) argue that through short 1 - 3 hour interventions, psychological capital can be developed and the interaction of these individual competencies is synergistic, that is, the competencies together have a greater impact on outcome than the sum of hope, resilience, optimism and efficacy (Luthans, Avey, Avolio, Norman & Combs, 2006). For example, Luthans, Norman, Avolio and Avey (2008) outlined the benefits of psychological capital including its positive relationship to work satisfaction and performance and work commitment. Judge and colleagues devised a scale to measure a higher order core self evaluation construct, a measure of positive self-regard, which is indicated by self esteem, generalised self-efficacy, emotional self-regulation (rather than neuroticism) and locus of control (Judge, Erez, Bono & Thoresen, 2003).

Research findings include demonstrating that those with a high core self evaluation were able to capitalise on early family advantages (Judge & Hurst, 2007); have stronger career trajectories; greater job satisfaction and higher income, in part due to a higher level of education and fewer health problems (Judge & Hurst, 2008).

A more recent higher order construct that has been conceptualised is covitality (Renshaw et al, in press). This construct consists of 12 “psychological building blocks” (Renshaw et al, p4) that make up four domains reflecting belief in self, belief in others, emotional competence and engaged living. Covitality was a better predictor of positive outcomes such as prosocial behaviour and was negatively correlated with depression and anxiety measures.

#### **1.1.7. Implications and Interventions.**

The experience of psychological malaise for many individuals is reflected not only in the worldwide incidence of depression (WHO, 2001) and relapse rates (Kessler & Walters, 1998) but also in findings that 30 – 50% of individuals who seek coaching rather than psychological therapy suffer from diagnosable conditions such as depression and anxiety (Grant, 2008). In a bid to identify a mental health continuum, Keyes (2002) determined that only 17% of individuals in the US met the criteria of psychological, emotional and social wellbeing he designated as “flourishing”. Although he deemed some as experiencing moderate mental health, he classified 17% of the population as “languishing” - experiencing life as empty and stagnant (Keyes, 2002; Fredrickson & Losada, 2005). Languishing was associated with lost work

days, increased risk of depression and health problems (Keyes, 2002, Keyes, 2004).

Relevant to these findings is the identification of a happiness “setpoint” or baseline (Lykken & Tellegen, 1996). This setpoint is estimated to account for 50% of the variance in reported happiness and life circumstances account for 10% of the variance (Lyubomirsky, Sheldon, & Schkade, 2005). However, intentional activity accounts for 40% of the variance in reported happiness. If an individual is likely to maintain a particular mood unless situational constraints or social interactions require a change (Erber & Erber, 2000), then the degree of languishing uncovered is not surprising. Once in that state due to life circumstances or a genetic happiness setpoint, people are unlikely to shift unless provided with the knowledge through therapy or coaching about the qualities, actions or interventions that can promote wellbeing, happiness or resilience. Given these findings it is likely to be beneficial to incorporate research evidence on positive emotions and psychological strengths into clinical therapy and coaching interventions (Cheavens, Feldman, Woodward, & Snyder, 2006).

Applications of positive psychology research are aimed not only at facilitating happiness but also optimal functioning (Linley & Joseph, 2004), that is, the ability to thrive at home, in relationships and at work, as well as adapt to stressful life events. Sin and Lyubomirsky (2009) provide a meta-analysis of positive psychology interventions that offer strategies to enhance wellbeing and decrease psychological distress. As previously noted, programs to develop psychological capital aimed at optimising work performance and work attitude have been devised (Luthans et al, 2006).



Psychological capital is associated with work performance, commitment and work satisfaction (Luthans et al, 2008). Wellbeing therapy (Fava, Rafanelli, Cazzaro, Conti & Grande, 1998) and other proactive interventions, in preliminary testing, have proven to be effective in removing residual symptoms of depression. Although ACT is a clinical intervention, it has been used in the workplace. Specific ACT interventions aimed at increasing mental health, decreasing sick leave and increasing work performance have been effective both for people at risk of long-term disability from pain and stress (Dahl et al, 2004) and for employees not at increased risk (Bond & Bunce, 2003).

Another pilot program has been specifically aimed at increasing resilience in the workplace. The Promoting Adult Resilience Program was designed to increase interpersonal and problem solving skills, as well as to educate participants in identifying and utilising personal strengths and managing stress (Millear, Lioassis, Shochet & Biggs, 2008, Lioassis, Shochet, Millear & Biggs, 2009). Five months after the completion of the program, participants reported higher optimism levels, increased job satisfaction, a better work-life balance and increased psychological wellbeing as measured by Ryff's scales (Lioassis et al, 2009).

Some positive psychology interventions have shown immediate but only short-term increases in happiness. However, longer term increases in happiness have been demonstrated. For example, study participants who were asked to identify and use their character strengths in a new way, or to review three things that went well each day, demonstrated increased happiness and decreased depression symptoms over the longer term

(Seligman, Steen, Park, & Peterson, 2005). Psychologists have prescribed a range of evidence-based strategies designed to promote happiness, positive emotions and resilience (Fredrickson, 2009; Lyubomirsky, 2008; Seligman, 2002). These strategies are designed to promote and utilise qualities such as mindfulness, curiosity, acceptance, kindness, high quality social interactions, and gratitude. One such study aimed, in eight weeks, to increase wellbeing in eight volunteers (Grant & Leigh, 2010). Although this televised experiment was not a randomised controlled experiment, the volunteers did report increased wellbeing both mental and physical over the eight week period. Strategies included increasing exercise, improving diet, identifying goals and values, practising acts of kindness and mindfulness, using personal strengths, problem-solving and fostering positive social networks.

Another study aimed at university students was specifically designed to examine the beneficial effects of a coaching condition on an objective measure of performance – academic grade (Franklin & Doran, 2009). Although not specifically designed to increase wellbeing, this coaching intervention targeted factors associated with wellbeing including self-efficacy, hope, self-theories, self compassion and resilience. Results showed that the intervention resulted in significant increases in hope, self compassion, growth mindset and academic grade although both conditions increased resilience and self-efficacy.

Despite the promise of these interventions, there is no overarching theory or prescription for either optimising psychological wellbeing or understanding the relative importance of specific attributes or qualities. Instead, a toolkit of

strategies that can be randomly chosen to promote some aspect of successful functioning has been offered. Notwithstanding the benefits of these strategies, caution is encouraged. Highlighting the need for a framework or theory to guide therapy promoting wellbeing, Biswas-Diener (2009) urged people to become aware of the appropriateness of some strategies; for example being aware of situational constraints in using strengths. If people are “happiest and healthiest when there is an optimal fit between self and environment” (Tangney, Baumeister & Boone, 2004, p272), then facilitating change to help people adapt and fit better within their world requires an understanding of what qualities or competencies are required to maximise that fit. Clearly there are individual strengths and resources that can be developed which are associated with wellbeing and psychological adjustment. An underlying theory and framework to promote this successful psychological adjustment can guide the appropriate delivery and focus of therapy and coaching interventions. The brief review below outlines a few approaches some authors have taken in addressing this issue.

#### **1.1.8. Optimal Human Functioning.**

Theories of wellbeing have taken both a top-down and bottom-up approach towards psychological adjustment (Gruenewald, Mroczek, Ryff, & Singer, 2008). Top-down theories emphasise personality traits while bottom-up approaches focus on cultural influences such as sociodemographics, for example, marital status and education. Although positive psychology includes a branch that emphasises institutions that enable positive adjustment - thus taking into account cultural environment and context - the two major branches of positive emotions and individual traits have a more

top-down approach, focusing on the qualities required for the individual to experience wellbeing.

Some models (briefly described below) include both internal and external characteristics associated with wellbeing and adjustment, and often include the implicit notion that individuals have a tendency towards growth and self actualisation (Sheldon, 2004). Arguably, growth comes despite and sometimes through adversity, suggesting the implicit notion of resilience.

It is clear that each view affords a different prescription for attainment. Some theorists view the optimally functioning individual more in terms of being “fully” functional. Carl Rogers (1961, 1963) described the fully functioning person as being open to experience, flexible, trusting in him or herself, living in the moment with few preconceptions, and includes connection with others. Maslow (1971) argued that in order to maximise potential an individual is motivated towards self actualisation. He proposed an emergent hierarchy of needs with the most basic being physical needs, then security, followed by relatedness, then self esteem through to self-actualisation. This view is highly dependent on the environment for lower needs to be met.

Ryff (1989) integrated the converging aspects of a number of theories of positive functioning to identify pertinent characteristics. She ascribed six attributes to the successful individual: the capacity to build close relationships, a positive sense of self, personal growth, autonomy, purpose in life, and environmental mastery (Ryff & Singer, 1996). Four attributes of Ryff's (1995) multidimensional model are highly correlated – self acceptance,

environmental mastery, purpose in life and personal growth (Springer & Hauser, 2006). Validation of the scales used to measure Ryff's model of wellbeing suggests three factors - autonomy, relationships, and the superordinate factor the highly correlated attributes of self acceptance, mastery, purpose and personal growth (Burns & Machin, 2009).

Keyes (2002, p208) extended Ryff's theory of optimal functioning by stating that subjective wellbeing was the "individual's perceptions and evaluations of their in own lives in terms of their affective states and their psychological and social functioning". Psychological functioning incorporated the facets Ryff proposed. However, he also considered positive affect, the absence of negative affect and social wellbeing which includes social integration, coherence, social acceptance, social contribution and social actualization as critical to optimal functioning.

Antonovsky (1979) considered psychological health in terms of stressors and coping; and also argued that social influences must be taken into account when viewing psychological health. He purported that individuals who held a set of generalised resources that are both internal and external, such as ego strength, social support and wealth, develop a sense of coherence allowing them to make sense of and manage the stressors that they face.

Although Ryff, Keyes, Antonovsky and Maslow describe attributes and qualities that are required for the fully or optimally functioning person, their models do not offer an account of how those qualities are developed or

maintained. The models also do not specifically explain the relationship between internal and external factors in psychological health, or how individuals adapt to stressful or life-altering situations. Self Determination Theory (SDT) (Deci & Ryan, 2000) offers a meta-theory that explains the interface between the social environment and the individual. The theory maintains that individuals are proactive and have an inherent tendency towards growth and development; however this tendency is influenced by the social environment. Optimal functioning depends on whether the environment supports the individual in meeting their basic needs for autonomy, competence and relatedness. In other words, to achieve wellbeing an individual must feel effective in engaging with the world; feel a sense of belonging, interacting and caring for others; and experience a sense of choice in their actions (Deci & Vansteenkiste, 2004).

Two other models account for adaptation to stress; Cognitive Adaptation theory (Taylor, 1983) and the Conservation of Resources theory (Hobfoll, 1989). Cognitive Adaptation theory argues that when people are faced with life-altering situations, attention may shift to areas of self esteem, mastery and optimism through downward social comparison, a focus on what is controllable, and maintenance of positive illusions about the situation or its effects (Taylor, 1983). Higher levels of cognitive adaptation have been found to be positively related to greater psychological and physiological wellbeing in people with cancer, HIV and heart disease (Helgeson, 1999; Taylor, 1983; Taylor, Kemeny, Reed, Bower, & Gruenwald, 2000).

On the other hand, Hobfoll's conservation of resources theory (1989) has its foundation in Bandura's (1977) social learning theory which argues that individuals actively engage with their environment to increase the possibility

of obtaining positive reinforcement. The conservation of resources theory proposes that individuals are motivated to obtain resources, such as material possessions, social support and positive personal characteristics - like self esteem - that will increase their likelihood of reinforcement. Stress occurs when these resources are threatened or lost. Positive functioning depends on the individual's ability to replenish these resources. Replenishment of resources implies adaptability and resilience. The qualities that help some individuals be more successful at this replenishment have not been explained.

## **1.2. Models of Optimal Functioning**

The review of positive psychology, positive emotions, character strengths and optimal functioning demonstrates the individual merit of these constructs with regards to promoting wellbeing; however as previously noted, what is lacking is a meta-model that integrates these positive characteristics. Psychology's strength as a discipline arguably arises from its emphasis on relevant theoretically-driven research and its strong evidence base. Providing a strong theoretical framework for wellbeing will bring this research in line with the psychology discipline. Despite the dearth of integrative research offering a developmental account of optimal functioning, two models have attempted to further our understanding. (Franklin, 2006, 2009; Sheldon, 2004).

Both models have similarities despite their separate development. They are multilevel. Each level affects functioning and has top down and bottom up influence. Sheldon (2004) integrates biological, cognition, personality, social

interaction and cultural levels of analyses, whereas Franklin (2009) focuses on levels of analysis from adaptive learning through self, social interaction and work. Franklin's emphasis on the self-regulation process, particularly change readiness and the desire to reduce the discrepancy between a present and ideal state, may help to unpack or reveal those qualities that facilitate the replenishment or gathering of resources to deal with stress and function optimally, as implied by Hobfoll's conservation of resources theory. Because these models underpin the current research paper, they will be reviewed briefly.

#### **1.2.1. Sheldon's model.**

Sheldon's (2004) multi-level model of wellbeing, grounded in empirical research, respects that many factors simultaneously influence wellbeing. Like Ryff, Sheldon asserted that although there may be a range of conceptions of optimal functioning, there remains a "latent commonality underlying them" (Sheldon, p5). He argues for a broad view, contending that the greater the degree of integration and coherence between neurobiological, cognitive, personality and social levels within an individual, the more optimal their functioning. He describes the "optimal human being" as one who is "actively involved in life, who is successful, who seems to be...happy and satisfied, and who also enhances and make[s] happier those around him" (Sheldon, 2004, p1).

This definition has similarities to the WHO's definition of mental health, which recognises productive work and positive contributions to the community, however does not explicitly include a reference to coping with



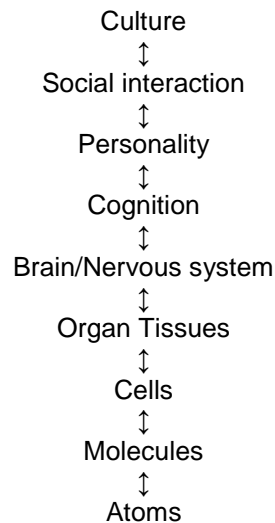
challenge. Subjectivity is also evident in judging what could be considered “successful” and “optimal.” Given the argument for integration between physical, cognitive, personality, social and cultural levels for optimal functioning, questions arise as to the optimal level of functioning for individuals with physical disabilities or illnesses. Sheldon argues that factors within the personality level, which will be briefly discussed, such as need satisfaction and goal intentions through an “organismic valuing process”, can be adjusted to better integrate physical, social and personality levels. This complex interaction could be considered as the adaptation to challenge. Sheldon (2004) also acknowledges the need for further empirical research to support his model but to date it has had limited testing.

Like other theories of wellbeing (Antonovsky, 1979; Ryff, 1995), Sheldon saw this optimal individual as being in the possession of a variety of qualities that enable him or her to function well. To explain his broader view, he presents an overarching nine-factor hierarchical model (from atomic to cultural level) identifying the various factors that might influence human behaviour. He contends that although his specific model may be novel, many others recognise the complexity of factors that influence behaviour and functioning and have presented models that have incorporated these levels (e.g. Rose, 1998). These levels are outlined in Figure 1.1.

Each level offers a different explanation for some aspect of behaviour and at the same time influences and moderates the effect of other levels.

Wellbeing is viewed as dependent on multiple factors, all of which are relevant, from the atomic level to the cultural level. Given this view, Sheldon

contends any outcome is “potentially a nine-way interaction, on top of an eight-way interaction...down to the simple main effects of each level” (p32).



*Fig 1.1 Levels of Sheldon’s (2004) model of optimal functioning*

Given a particular outcome, however, one or more levels may offer the best explanation of influence. For example, a political bombing may be better explained by cultural conditions rather than neurobiological conditions; whereas a person’s tears in response to watching a sad movie might be determined by innate physiological sensitivity, cognitions, personality, social experiences and cultural norms. The complexity of such an interaction would preclude empirical testing. Sheldon has focused on effects at specific levels.

Of particular interest for Sheldon (2004), and for this study, are the levels of cognition, personality and social interaction. These levels, he contends, are where an individual has the greatest influence on outcome, that is, healthy functioning. Although personality is seen as emergent from cognition and

social interaction emergent from personality, top down and bottom up influence can occur. By integrating models of behaviour and personality theories, Sheldon proposed a sub-hierarchy within the personality level. Incorporating Carver and Scheier's (1998) control theory of behaviour and concepts of purposive action, goals and intentions, McAdam's (1995, 1998) model of personality, with its focus on individual traits, motives and self-stories or self – beliefs, and universal characteristics of human beings, such as needs, Sheldon's model of personality is based on needs, motives, traits and self-beliefs.

Sheldon and Hoon (2007) have begun to test this model, measuring representative factors at specific sub-levels of personality to determine their effects on subjective wellbeing (SWB). SWB was measured by the summing of life satisfaction and positive affect and subtracting negative affect. Their aim was threefold: to examine the extent to which each level functions optimally in its own internal processes; to determine whether there was a more parsimonious explanation of the effects overall - as well as at each level - and to determine to what extent each level supports the optimisation of another level. In doing so, they emphasise the importance of identifying the appropriate constructs at each level of analysis.

With the first test of the model they particularly looked at the hierarchical aspects of personality: psychological needs, traits, goals and self-concepts; along with social relations and cultural identification. Measures were used to assess constructs at each level. These included psychological needs relating to autonomy, competence and relatedness (Deci & Ryan, 2000); the

Big Five traits of extraversion, neuroticism, conscientiousness, agreeableness, and openness (Costa & McCrae, 1995); the self-concordance of goals and success in achieving those goals; attitudes towards self; and perceived satisfaction with social support and autonomy support, that is, an individual's right to make this or her own choices. Cultural identification was also assessed. All were significantly correlated with SWB and for the most part the correlations among all the predictors were positive and significant. To evaluate the common variance among the predictors that these correlations represented, a principal components analysis (PCA) revealed three factors that Sheldon and Hoon (2007, p580) proposed as representing "positive sociality", "growth orientation" and a broad personality group. At each level constructs were examined to determine the best possible predictor by regressing SWB upon the predictors at each level. At each level after regression, all constructs remained significant; however, the strongest predictors for each level were competence needs, neuroticism, goal progress, self esteem, and social support. The constructs were then compared to determine whether they still uniquely predicted wellbeing that is whether each level was responsible for unique variance and relevant to outcome. They found support for the model with competence needs, low neuroticism, goal progress, high self esteem and social support uniquely predicting wellbeing. Sheldon and Hoon (2007) maintain that to develop wellbeing, different levels should be targeted for intervention, and that for an individual, change at just a few levels may have a cascading effect on all levels.

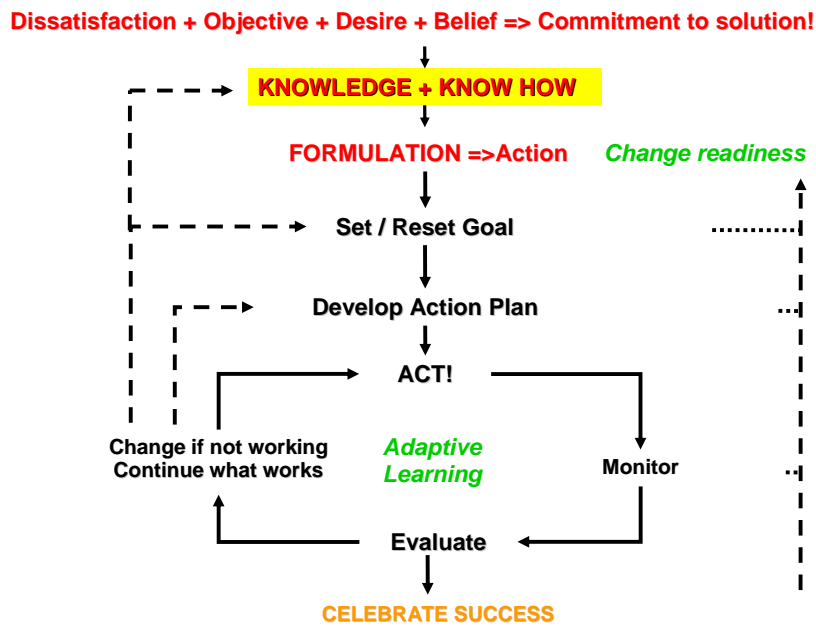
Sheldon (2004) concedes that within the levels that he has identified there are a range of variables that may contribute to wellbeing and that there is likely to be considerable overlap between those variables. The same may be said for the overlap between levels. For example, positive emotions and character strengths incorporate physiological, cognitive and behavioural elements so overlap many of the levels of Sheldon's hierarchy, including personality, cognition, molecules, etc. These issues must be considered when examining the results of any multi-level testing. How is it possible to differentiate or specifically focus on one level considering the overlap of construct? Can the model prove to be useful in guiding interventions? Sheldon (2004) argues that different levels should be targeted to maintain wellbeing and that coherence between the levels is necessary. He offers a set of guidelines such as "[try] to develop more positive personality traits" and "Set and pursue goals, as effectively as possible" (Sheldon, 2004, p104). However this does not give a clear indication of *how* to do those things or what skills are required to follow the guidelines. Given those considerations, Franklin's model will now be reviewed.

### **1.2.2. Franklin's model.**

In a similar vein but focusing specifically on personal attributes required to optimise the fit between self and environment, Franklin (2006, 2009) proposed a multilevel/multifactor model of success. Franklin (2010) defines success as an individual's evaluation of the extent to which he or she is meeting needs and expectations across four areas of life: personal growth, contentment with self, connection with others, and contribution to society. This definition is in line with Deci and Ryan's (2000) SDT which assumes

the tendency towards personal growth and argues that the needs for competence, autonomy and relatedness must be satisfied for people in order to achieve healthy and optimal functioning. Franklin (2010) viewed resilience as a mechanism, or strength, rather than an outcome. Like Sheldon, he concludes that contentment involves a range of needs, physiological and psychological, and that pleasure and engagement are other aspects of contentment. His model aims to capture the development of skills, qualities and beliefs that are associated with success within these domains of personal skills, people skills, and work – life skills. For Franklin, success is the progressive achievement of learning, adapting, understanding and managing ourselves and developing positive relationships with others. Underpinning this model of success is Franklin's model of self-development and change motivation, which he named the Preparation Action and Adaptive Learning (PAAL) model (Franklin & Doran, 2009). See Figure 1.2. This model is based on Carver and Scheier's control theory model of action (1982), which underpins many theories of self-regulation, and specifically focuses on the concept of change readiness or preparation.

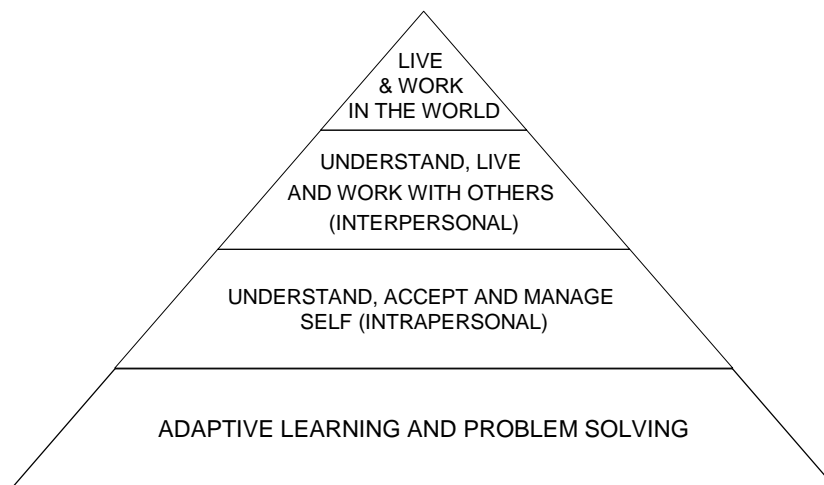
This model proposes that an individual is motivated to change by recognising the discrepancy between his or her current condition and a more desired state. With this awareness goals and plans can be developed and activated.



4

Fig 1.2 Preparation Action and Adaptive Learning (PAAL) model (Franklin, 2009)

There are a range of processes that motivate and enable an individual to enact adaptive responses. Franklin argues that these processes can be understood hierarchically. Hierarchical models offer a useful description of developmental processes with precedent set in psychology, for example Maslow's model and the Hierarchical Model of human motivation (Vallerand & Lalande, 2011). Franklin initially proposed that learning to adapt and to problem solve (adaptive learning) underpins the ability to understand, accept and manage oneself (Personal skills). This capacity, in turn, is required to understand and work with others (People skills) and ultimately to live and work successfully in the world (Work-Life skills). See Figure 1.3. This is the model that will be tested in this research.



*Fig 1.3 Developmental hierarchy for success (Franklin, 2006)*

As already noted, many models of optimal functioning argue for the importance of these factors. Relationships, social support and self esteem, or self-acceptance, are considered vital factors in wellbeing (Keyes, 2002; Maslow, 1971; Rogers, 1961; Ryff, 1989). To attain inner contentment, Franklin argues that intrapersonal or Personal skills that are relevant to personal needs and goals are required.

His model expands upon what factors are required to meet the needs and goals of Sheldon's (2004) personality hierarchy. Interpersonal (People) skills are necessary for the development of satisfying relationships, and contribution occurs through work, family and community involvement. To empirically test this model, it is necessary to conceptualise or understand what skills traits or psychological strengths could be assigned to each level of Franklin's model.



Essential to the development of the appropriate interpersonal, intrapersonal and contribution skills are adaptive learning skills that are goal motivated. Franklin (2009) argued that this goal motivated adaptive learning domain encompasses qualities or attributes that are the foundation of the three other domains: Personal, People and Work-Life skills. Weighted at the base of the hierarchy (see Figure 1.3), these adaptive learning skills and to a lesser extent, Personal skills, will contribute more to the prediction of happiness, life satisfaction and resilience as their relative contribution to global measures of these outcomes are the greatest.

Franklin (2009) asserts that for the development of the skills required in the Personal, People and Work-Life skills domains, recognition of a state of dissatisfaction or lack of concordance between desired state and actual state brings about the motivation to change, or change readiness (refer Figure 1.2). The willingness and belief in the capacity for change arise from adaptive learning skills or qualities. Skills or qualities that might influence change readiness include constructs such as mindfulness, curiosity, hope, optimism and psychological flexibility. The Personal skills that contribute to inner contentment might include self esteem, self efficacy, self compassion and self control. Franklin, like Sheldon (2004), allows for bidirectional influence. The strength of these qualities will also influence qualities in the goal motivated adaptive learning domain. Change readiness can be affected by intrapersonal (personal) and interpersonal (people) skills, thus promoting growth of other skills. At the People skills level, skills that enhance connection include the ability to be empathic, take someone else's

perspective, manage conflict, and initiate interactions. Other variables are related to positive engagement with work and the world but these are not the focus of this research.

Franklin's model evolved during the course of this study and is now based on the recognition that each level may independently influence outcome and have bidirectional influence, Franklin (2009). He proposed that inner contentment, connection and contribution are crucial for success and happiness. See Figure 1.4. For this study, it was not feasible to change tack to test the evolved model, given the already complex testing that was necessary, and it remains useful to explore evidence supporting the appropriateness of his initial model.



80

*Fig 1.4 Franklin's revised model*

There are a vast range of variables potentially related to each level of the model; various outcomes that can be measured to assess "success"; and an overlap of constructs that might occur between the adaptive learning,

Personal and People skills levels of the model. Therefore it is necessary to explain how the model is conceptualised in terms of outcomes and elements within each domain.

This next section will firstly provide definitions for the outcomes that will be measured and then explain how elements of Franklin's model are conceptualised for the purpose of the present research. How each element is measured will be presented in the Methods chapter.

### **1.3. Conceptualisation of Franklin's (2006, 2009) model: outcomes and antecedents**

#### **1.3.1. Definitions.**

As many have pointed out, problems with wellbeing and adaptive functioning research arise with an overlap of constructs, muddled conceptual definitions, the broad range of variables implicated, the variety of outcomes measured, and also the fact that many conclusions are based on simple bivariate relationships (e.g. Franklin, 2009; Ferris, Perrewe & Douglas, 2002; Kashdan, 2007; Semadar, Robins & Ferris, 2006; Shogren, Lopez, Wehmeyer, Little & Pressgrove, 2006).

The problem with conceptual clarity has already been made evident in outlining issues with emotion, mood and affect research. Questions remain as to how psychological wellbeing, psychological adjustment, subjective wellbeing and mental health should be conceived; and how it may be conceptualised when examining Franklin's model. It is clear that diverse constructs are described by various researchers as psychological strengths, emotions, skills or resources, and these may be measured as either outcomes or antecedents of other constructs. For example, qualities or

constructs such as hope and curiosity are variously described as emotions (Fredrickson, 1998), character strengths (Peterson & Seligman, 2004), cognitive constructs (Snyder, 2000), or motivational drives (Kashdan & Steger, 2007). This semantic crossover has hampered more integrative research that examines how these factors interact to affect psychological adjustment. Therefore, the conceptual definitions for this research will be outlined below.

### **1.3.2. Wellbeing and Related Constructs.**

As WHO's (2001) definition of health shows, mental health is multifaceted. It includes a state, whereby one realises one's own thinking, emotional and relational abilities, and copes with challenge. Accordingly, to assess mental health, that assessment must come from multiple vantage points. It is as important to assess subjective cognitive, affective and relational outcomes as to assess the more objective indicators of health, such as employment, relational status, education and community involvement.

Constructs related to mental health include flourishing, subjective wellbeing, psychological wellbeing, life satisfaction, thriving, resilience and self actualisation (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005). Eid (2008) maintains that subjective wellbeing should be conceptualised not only in terms of cognitive and affective components, but also as to whether it is experienced as momentary, situational or global - and either 'whole life' or domain specific. Affective components gauge an individual's emotional response to their situation, whereas life satisfaction is the cognitive aspect of wellbeing (a global cognitive measure of subjective satisfaction with life).

Despite Eid's view, subjective wellbeing is often conceived of as three factors, specifically: positive affect, negative affect and life satisfaction (Arthaud-Day, Rode, Mooney & Near, 2005). These components represent the individual's subjective experience, and are therefore measured by self-report. Ryff and Keyes (1995) argue that the study of psychological wellbeing has been guided by the notion of happiness and life satisfaction, which also relies on affective and cognitive dimensions of wellbeing.

This research separately assesses subjective affective, cognitive and relational outcomes, assessing life satisfaction, and subjective reports of happiness and satisfaction with relationships and also assesses resilience, with a definition given below. To measure psychological distress in keeping with a comprehensive approach, depression, anxiety and stress will also be assessed.

### **1.3.3. Resilience.**

Psychological resilience is not only the ability to cope flexibly with stressful events but also the ability to bounce back from those events (Masten, 2000). Applying the conservation of resources theory, this would mean being able to replenish the resources required to maintain a positive psychological equilibrium.

Benard's (2004) comment that the "nature of resilience is commonly misunderstood" is no doubt true. A question arises whether resilience is an innate capacity, enhanced by various protective factors, or whether it is a developmental process bolstered not only by environmental and social

protective factors, but also by psychological strengths and skills (Benard, 2004; Peterson & Seligman, 2004). Practical understanding of the nature of resilience is unclear because there is no single, agreed, definition providing conceptual clarity. This challenge leaves many methodological problems in research (Atkinson, Martin & Rankin, 2009; Harvey & Delfabbro, 2004).

Leaders in the field of resilience research have variously examined the factors differentiating those who have coped with adversity from those who have been less successful (Rutter, 1981; Garmezy, Masten & Tellegen, 1984; Werner & Smith, 2001). Success, however, is a cultural and personal evaluation. As a cultural construct, success may entail competence in certain areas, for example, financial and social success (Harvey & Delfabbro, 2004). Nevertheless, socially competent individuals may also experience greater psychological distress than their less stressed peers (Luthar, 1991); therefore, it could be argued that such individuals may not be emotionally resilient. So although income, employment, marital status and level of education are useful constructs to examine when seeking to determine levels of resilience, the individual's self-report of wellbeing is equally important.

Another approach to resilience research is examination of the link between neurobiological and psychosocial factors that promote resilience to stress (Southwick, Vythilingam & Charney, 2005). Various factors such as positive emotions, acceptance or even meditation may promote brain activation that prevents stress-induced distress, such as depression (Davidson, Jackson, & Kalin, 2000; Southwick et al, 2005). Therefore, consideration of these

characteristics, or developed skills, in a model that builds resilience would be worthwhile.

Benard (2004) argues that capacities such as social competence, problem solving, autonomy and empathy are manifestations of resilience; whereas increased social competence is a protective factor against stressful life events (Hjemdal, Friborg, Stiles, Rosenvinge, & Martinussen, 2006).

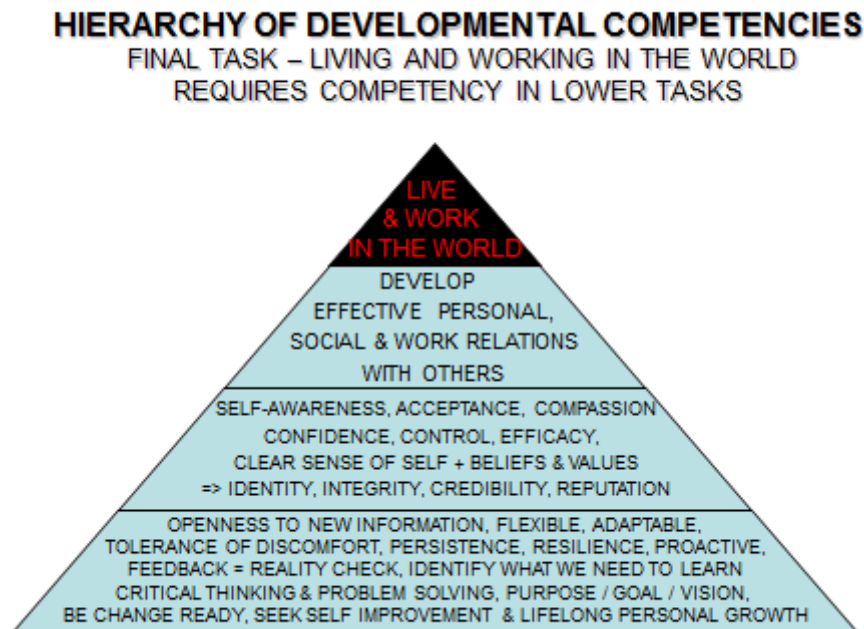
Empirical support has been demonstrated for self-regulation as a predictor of resilience (Buckner, Mezzacappa, & Beardslee, 2003). Research findings suggest that resilience might be linked to the ability to be mindful, self compassionate, connected to others, and with the ability to develop high quality relationships (Bonnano, Wortman & Nesse, 2004).

Resilience is affected by external risk factors, innate vulnerabilities and protective factors. Although removing societal risk factors would prevent stress, socioeconomic improvements are slow and adversity is a part of life. Developing the skills to manage within this environment is adaptive. Therefore, measuring protective factors associated with resilience is valuable. Resilience in this study is assessed with a scale that examines the psychological and social support resources held by individuals (Friborg, Barlaug, Martinussen, Rosenvinge & Hjemdal 2005).

#### **1.3.4. Selection of Antecedent Elements within Franklin's Domains.**

Specific components of Franklin's model will be examined in order to test a pathway, or route, to successful adaptive functioning. Franklin has suggested a range of constructs that might be considered, some of which

are demonstrated in Figure 1.5. It is clear that many constructs could be applied to this model. However, the complexity of including all possible constructs precludes realistic testing and would fail to give meaningful information.



*Fig 1.5 Suggested competencies at each level*

Impractical as it is to test all the components that Franklin suggests belong to each domain, the selection of constructs to be tested is based on theoretical and empirical findings associated with positive adaptive functioning and positive psychology, and will be discussed. As previously noted, core psychological “building blocks” have been proposed as belonging to other higher order constructs such as psychological capital (Luthans et al, 2007), core self evaluation (Judge et al, 2003) and covitality (Renshaw et al, in press). To avoid potential overlap with these constructs, specific criteria for selection in the study have been adhered to. The developmental possibility for these constructs, provided by empirically



supported interventions, has been considered in their selection. If support for interventions that are effective in developing the skills necessary for “success” is already in place, the “how” of becoming “successful” is clearer and offers therapists and coaches clear guidelines for use with their clients. Findings from empirical research on adaptive functioning, positive emotions, character strengths, mindfulness and psychological flexibility, which have been discussed, guide the selection of constructs at each level. Therefore, key constructs such as self efficacy which are likely relevant to Franklin’s model will not be included. To the researcher’s knowledge, this is the first study to incorporate constructs endorsed by positive psychology and the “third wave” of cognitive therapy, in an integrative model of adaptive functioning. These particular constructs are either classified as character strengths or positive emotions, whereas mindfulness and psychological flexibility were selected for the study over others such as optimism because they are skills fostered through ACT (Hayes et al, 2004). The logic behind their selection and their proposed interaction is examined next.

#### **1.3.5. Goal Motivated Adaptive Learning.**

The foundation of Franklin’s (2006, 2009) model, goal motivated adaptive learning, outlines specific competencies including, but not only, change readiness, flexibility, optimism, openness, persistence, having a purpose or goal, and problem solving. As previously noted, many of these constructs have been the subject of research and show positive associations with each other, for example, optimism has a positive association with curiosity and hope (Kashdan, 2009). Since it is contended that hope underpins optimism, its contribution to wellbeing is considered over that of optimism.

For the purpose of this study, hope, mindfulness, curiosity and psychological flexibility meet the designated criteria, either as character strengths or resources whose development have empirical support, and are necessary skills to ensure adaptive change and adaptive responses to challenging circumstances (Brown & Ryan, 2003; Hayes et al, 2004; Kashdan, Rose & Fincham, 2004; Snyder et al, 1996).

Arguably, change readiness, and the process of monitoring progress towards change, fundamental to adaptive learning, requires first that an individual be aware of their current state and an ideal state, and recognise the discrepancy between this desired state and present state. Once this has been realised the individual must be able to develop goals and pathways to achieve the desired change and have the distress tolerance to manage through the change process.

Mindfulness requires attention - an awareness, openness and acceptance of present experience (Bishop et al, 2004). When individuals are mindful, their attention is focused on the present and they act with awareness. This is a necessary requirement to become aware of present state versus desired conditions so they can enact change. In developing mindfulness, individuals are encouraged to be curious. Curiosity, as previously noted, is growth-oriented and provides the drive to explore novel situations and challenging opportunities (Kashdan et al, 2004). Curiosity may also contribute to the qualities of hope, in formulating and developing pathways to reach goals. The agency component of hope, the perception that one can initiate change and work towards goals (Lopez et al, 2004) could be argued to be necessary to action adaptive learning as formulated by Franklin.

Psychological flexibility is the willingness to experience the present moment and act towards valued goals (Hayes & Strosahl, 2005). Psychological flexibility requires mindful attention to the present, awareness of action, qualities of mindfulness, awareness of goals and a sense of agency in aware action, and as such, also relates to hope. It is also a key component of adaptive learning. Each of these four skills, or psychological strengths, is thus related; suggesting overlapping processes. Given these assertions, hope, mindfulness, curiosity and psychological flexibility are conceptualised to be components that would belong to Franklin's Goal motivated adaptive learning domain. They fit the criteria as being associated with positive adaptive functioning and there is empirical evidence that these qualities can be developed.

#### **1.3.6. Personal Skills Domain / Understanding Self.**

The second level of Franklin's (2006) model argues that the fundamental capacity to learn and adapt aids an individual in becoming competent in understanding and managing him or herself. With his amended model (Franklin, 2009), an understanding of oneself also supports the ability to manage change and adapt. Sheldon (2004) also gives weight to self concept and self-beliefs as important to positive functioning.

Peterson and Seligman (2004) can again guide the selection of psychological strengths and competencies that might underlie positive adaptive functioning at this proposed level. Character strengths that have gained support in being associated with a range of positive adaptive outcomes such as healthy adjustment, interpersonal success and enhanced

mental wellbeing, include self compassion (kindness towards oneself) and self control (Neff, Kirkpatrick & Rude, 2007; Tangney et al, 2004). Self esteem reflects a general evaluation of the self and therefore would also be important to include within this domain. . Self efficacy (Bandura,1997), the belief in one's own capabilities is another pertinent construct for this domain. It is developed through mastery experiences, verbal persuasion, vicarious experience and physiological and affective states (Bandura,1977). However, it is related to the agency component of hope (Magaletta & Oliver, 1999). It is a component of psychological capital (Luthans et al, 2007), core self evaluation (Judge et al, 2003) and covitality (Renshaw et al, in press). It is a construct with a strong research foundation and for the purpose of this study, the more global self evaluative construct of self esteem; the self-regulatory construct; and the construct that reflects how we manage ourselves when “things go wrong”, self compassion; were chosen as relevant for the prediction of resilience.

The relation of these latter concepts to positive adaptive functioning and Franklin's other domains will be explained in greater detail.

#### **1.3.6.1. Self compassion.**

Self compassion has philosophical roots in Buddhism and reflects a positive attitude towards oneself when faced with disappointment or failure (Neff 2003). It is positively correlated with self esteem, adaptive functioning, a mastery orientation toward learning, perceived competence, intrinsic motivation, emotional resiliency, and autonomy (Neff, Hsieh I Dejitterat, 2005; Neff et al, 2007). Evidence of the role of self compassion in promoting resilience comes from studies examining reactions to unpleasant events and

situations. It appears that self compassion buffers against the distress of negative events, and allows individuals to accept responsibility when due, without defense and rumination (Leary et al, 2007).

Further support for the positive role of self compassion comes from Gilbert (2005), who argues that self compassion is a healing process; and when adopted in relating to others, promotes safe affiliative relationships. Self compassion promotes connectedness, and in turn promotes compassion and empathy for others and effective, flourishing relationships - the third level of Franklin's hierarchy, offering support for his model - with self compassion, a second level competency, underpinning a third level competency, understanding others.

Self compassion has been found to be positively related to curiosity and negatively related to depression and anxiety (Neff et al, 2007; Raes, 2010; Van Dam, Sheppard, Forsyth, Earleywine, 2010; Werner et al, 2001). Furthermore, a mindfulness based intervention significantly increased self compassion and decreased stress levels in health care professionals (Shapiro, Astin, Bishop & Cordova, 2005).

#### **1.3.6.2. Self esteem.**

Despite competing theories regarding the function of self esteem (for example, Deci & Ryan, 2000; Leary, 1999; Pyszczynski, Greenberg, Solomon, Arndt & Schimel, 2004), a positive attitude towards oneself is regarded as central to adaptive functioning (Harter, 1990). Sociometer theory suggests self esteem functions to regulate one's behaviour in relation

to the feedback one gets from others (Leary, 1999); whereas terror management theory suggests that self esteem buffers against existential anxiety and is “about being significant” (Pyszczynski et al, 2004, p 454). On the other hand, SDT (Deci & Ryan, 2000) distinguishes between intrinsic (true) self esteem and extrinsic self esteem which is dependent on external evaluations. It suggests that intrinsic self esteem serves to satisfy and integrate innate needs for autonomy, relatedness and competence (Deci & Ryan, 2000). Given that these competing yet related functions are all essential for wellbeing and adaptive functioning - and that self esteem is a vital component of an individual’s self-concept - self esteem has been selected to test within the model.

Low self esteem is associated with a range of negative outcomes including increased risk of depression, anxiety, decreased social self-evaluations and a greater physiological stress response. High self esteem has been related to positive self-evaluations, happiness, and favourable social and occupational outcomes (Dubois & Flay, 2004; Ford & Collins, 2010; Mruk, 2006). Despite this, self esteem has been criticised because it *is* self-evaluative, and promotes social comparison (Baumeister, Campbell, Krueger & Vohs, 2003; Crocker & Park, 2004). It may lead to self centredness, defensiveness or distortions in self awareness that protect the ego, and is not necessarily related to success or good interpersonal relations (Baumeister et al, 2003; Crocker & Park, 2004).

Even though there appears to be controversy surrounding the concept of self esteem, it would still be an appropriate concept to be included in a

model of wellbeing, particularly if self compassion is also included. Self compassion could act as a counter to any negative effects of self esteem, such as those self distortions that might occur. For this reason, these constructs are incorporated into this study.

#### **1.3.6.3. Self control / Self - regulation.**

The terms, self control and self-regulation, have been used interchangeably (Vohs & Baumeister, 2004), but this study recognises that self control reflects conscious impulse control and self - regulation encompasses any effort to alter any inner state or response. Carver and Scheier (1998) assert that self - regulation involves goal– directed action, emotion, confidence and persistence. Self - regulation involves the processes of self awareness, self monitoring, adjustment and change. Tangney and her colleagues (2004) developed a Self Control Scale, emphasising the “operate” phase of Carver and Scheier’s feedback model of self-regulation - “test, operate, test, exit” that is, regulating thoughts, restraining impulses, persisting and controlling or changing mood. It can be argued that to enact self control, the following attributes are required: an ability to attend, and awareness of action (mindfulness); to act whether or not experiencing uncertainty or discomfort (psychological flexibility); and a sense of agency and goals (hope). These are all facets of Franklin’s (2006, 2009) first level of goal motivated adaptive learning.

Self control has been associated with positive outcomes such as better grades, psychological adjustment, higher self esteem, and better interpersonal relationships. Further very high levels of self control have not

been associated with any negative outcomes (Tangney et al, 2004).

Peterson and Seligman (2004) assert that the Self Control Scale (Tangney et al, 2004) is the preferred measure for personality and social psychologists.

Given that it can be argued that the ability to exert self control requires skills that have been conceptualised to belong to Franklin's goal motivated adaptive learning domain - and self control is necessary to inhibit behaviour that might run counter to achieving desired goals, or enact behaviour that counters immediate impulses - self control is an appropriate construct to select for the Personal skills domain.

#### ***1.3.6.4. Proposed interaction of the constructs at the Personal skills level.***

As a construct, self compassion requires a sense of connectedness, self awareness and mindfulness. Self compassion can be predicted by changes in mindfulness (Birnie, Speca & Carlson, 2010). It also implies motivation for personal growth and amendment of identified problems. If, as Heatherton and Vohs (1998) argue, self - regulation is a limited resource, when a failure of self - regulation occurs self compassion would function to allow the individual to move forward without falling into self-recrimination and isolation - unlike self esteem which could suffer. Those high in self compassion would also be expected to be high in self esteem.

Vohs and Ciarocco (2004) argue that almost every personal and social problem involves a failure of self - regulation and that self - regulation promotes interpersonal relatedness and participation in society. This argument reflects Franklin's (2006) model that has this facet of self



management as underpinning the third level of the competency hierarchy, People Skills.

#### **1.3.7. People Skills Domain/ Understanding Others.**

This third level of Franklin's model will be assessed by measuring interpersonal competence and empathy. Social connectedness requires the ability to interact effectively with others. This interaction can be measured by assessing an individual's ability to initiate contact with other people, provide emotional support, manage conflict, disclose personal information and assert him or herself (Buhrmester, Furman, Wittenberg, & Reis, 1988). Interpersonal competence requires self awareness, empathy and the ability to look at different perspectives, as well as the capacity to control impulses or emotions that might affect others negatively. Relationship satisfaction and social self esteem have been associated with various competencies, including the ability to initiate contact and provide support (Buhrmester et al, 1988). The ability to see another perspective and to show empathic concern can be assessed with the Interpersonal Reactivity Index (IRI) (Davis, 1983). Self control has been found to be positively correlated with the perspective taking and empathic concern scales of the IRI (Tangney et al, 2004). Again, given the overlap between these constructs and the competencies that have been conceptualised as belonging to the Goal motivated adaptive learning and Personal skills domains that could underpin these skills, interpersonal competence, empathic concern and perspective taking were selected for the People skills domain.

#### **1.4. Summary and the Present Research**

This chapter has provided a brief overview of positive psychology, specifically individual strengths, emotions and trait-like skills that are related to the “healthy, successful” person. To ground this information in a foundation that is practical for the therapist or coach, interventions that have proven effective in the development of these skills were also briefly reviewed. What is clear, however, is that there are few models that can guide the therapist in delivering or targeting particular skills for maximum effect. Two models developed concurrently, Sheldon (2004) and Franklin (2006, 2009) have been discussed. To date, there has been only limited research conducted on Sheldon’s (Sheldon & Hoon, 2006) model; and there has been no test of Franklin’s (2006, 2009) model. Furthermore, integrative research examining the effects of character strengths, positive emotions, mindfulness and psychological flexibility on wellbeing, has not been conducted.

As Franklin (2010) notes, more sophisticated analysis will allow us to garner evidence regarding the most parsimonious number of variables that will predict psychological wellbeing and distress. Sheldon and Hoon (2007) also argue for an approach which may identify the most important factors in understanding wellbeing.

The first step in their approach is to determine the strongest predictor of wellbeing at each level, and then to compare each of these predictors, to establish overall those predictors contributing unique variance to wellbeing. Although it may seem contrary when investigating the most essential factors

associated with wellbeing or distress to maintain a focus on the influence of different levels of functioning within the individual, in this case, foundational adaptive learning skills as well as personal and people skills, this is in line with arguments against reductionism which might limit our understanding of all factors at play (McAdams, 1995; Rose, 2005).

As Sheldon and Hoon (2007) point out, this assumes that each level is valid, providing independent information that uniquely predicts wellbeing and, in the case of this study, distress. In turn, their approach provides a method that helps analyse the relative importance of each variable at each level of Franklin's model. By letting the variables compete for variance of an outcome, in their case subjective wellbeing, they hoped to begin the process of "consolidating and prioritising disparate constructs". They recognise the dangers of such a method, such as capitalising on chance or on specific data characteristics, however suggest that over time, cumulative evidence can be gathered which may reveal essential variables related to wellbeing. The value of being able to focus on these relevant variables in implementing and designing interventions to develop wellbeing and resilience and to counter distress is clear.

It is likely that different skills may be important to combat factors associated with psychological distress. If, as expected, psychological wellbeing is not the polar opposite of psychological distress, then knowing those factors that contribute to wellbeing and also buffer distress is important. A further question to ask is: what is the contribution of each level in the prediction of wellbeing and distress? Franklin (2010) proposes that more global outcome variables, such as happiness and resilience, are likely to be most strongly

related to goal motivated adaptive learning variables, followed by personal and then people skills.

Therefore, to contribute to the multivariate examination of variables associated with various outcomes (Ferris et al, 2002; Franklin, 2010; Semadar et al, 2006, Shogren et al, 2006), a parallel aim of this study is to investigate the unique and independent contribution of the variables, at each level and together, to the prediction of psychological wellbeing as measured by resilience, happiness, life satisfaction and relationship satisfaction, and psychological distress as measured by depression, anxiety and stress. This research is the first test of Franklin's (2009) model. The levels of Franklin's model that will be examined include goal motivated adaptive learning, Personal Skills and People Skills. Using a similar approach to Sheldon, individual elements within each level of the model will be selected and examined to determine whether together they load onto the selected domain; the extent to which individually they contribute to wellbeing and to what extent they support the functioning of the next level of the model.

#### **1.4.1. Aims and hypotheses.**

Franklin's (2006, 2009) model and the contributions of individual skills to psychological wellbeing and distress will be tested in an adult population. Specific research questions, hypotheses and predictions are provided below.

There are two major aims of this study:

1. evaluating the validity of Franklin's (2006, 2009) model; and,

2. examining the unique and individual contributions of a range of skills or psychological strengths on psychological wellbeing and distress.

The validity of Franklin's (2006, 2009) model will be assessed in two parts, firstly by assessing the fit of the measurement model and then the construct validity of the model as a whole. Prior to determining the measurement and structural validity of the model, preliminary research questions will be answered to assess the suitability of the elements selected as appropriate for Franklin's (2006, 2009) model. The questions that should be considered to assess this suitability relate to subjective outcomes; such as self-reported psychological wellbeing and distress and culturally determined measures of success, for example, income, employment status and education level. Should Franklin's (2006, 2009) model be shown to have adequate validity, higher levels of the selected constructs will be associated with greater wellbeing and cultural measures of success.

#### **1.4.1.1.      *Specific Hypotheses***

*Hypothesis One:* The individual elements selected to be included in Franklin's model (2008, 2009) will relate to the following outcomes: life satisfaction, self-reported happiness, relationship satisfaction, resilience, depression, anxiety and stress, in the predicted direction.

*Prediction:* That curiosity, mindfulness, hope, psychological flexibility, self esteem, self compassion, self control, perspective taking, empathic concern and interpersonal competence will be correlated positively with self-reported happiness, relationship satisfaction, life satisfaction and resilience. These same constructs will be negatively related to depression, anxiety and stress.

*Hypothesis Two:* Participants reporting higher levels of the constructs within Franklin's (2006, 2009) model will be employed, have greater income and report more years of education.

*Prediction:* That participants who report higher scores on curiosity, mindfulness, hope, psychological flexibility, self esteem, self compassion, self control, perspective taking, empathic concern and interpersonal competence; and lower scores on depression, anxiety and stress are more likely to be employed, have a higher income and higher level of education than those who are unemployed, report lower incomes and have less education.

*Hypothesis Three:* The elements will demonstrate discriminant validity as attributes promoting positive adaptive functioning by demonstrating group differences between participants involved in their community, presumed to be demonstrating more successful functioning, and those who have been identified by governmental agencies as having significant barriers to social and economic involvement, who are functioning less well.

*Prediction:* Those participants reporting lower levels of strengths will be more likely to have been identified as having barriers to community engagement than those engaged in the community.

*Hypothesis Four:* Given the likely empirical overlap between the elements within each domain, the individual elements will demonstrate an association with each other which may signify some conceptual overlap.

*Hypothesis Four a:* That for the goal motivated adaptive learning domain; hope, curiosity, mindfulness and psychological flexibility will be correlated;

*Hypothesis Four b:* That for the Personal skills domain, self compassion, self control and self esteem will be correlated;

*Hypothesis Four c:* That for the People skills domain, interpersonal competence and empathy constructs will be correlated.

*Hypothesis Five:* The elements selected for each level of Franklin's model: goal motivated adaptive learning, Personal skills and People skills, load onto their appropriate domains.

*Prediction a:* That measurement modelling will reveal mindfulness, curiosity, hope and psychological flexibility load onto the latent domain of goal motivated adaptive learning;

*Prediction b:* That self compassion, self esteem and self control will load onto the Personal skills domain;

*Prediction c:* That interpersonal competence, perspective taking and empathic concern will load onto the People skills domain.

*Hypothesis Six:* Franklin's (2006) model is hierarchical in nature.

*Prediction a:* Support for Franklin's (2006) model will reveal that the goal motivated adaptive learning domain predicts results for the Personal skills domain which, in turn, predicts the People skills domain.

*Prediction b:* Variance in predicted outcomes will be incremental within the model.

*Hypothesis Seven:* Adaptive learning skills will contribute most to global measures of happiness, life satisfaction, relationship satisfaction and resilience.

Prediction: Support for Franklin's model will reveal that skills at the adaptive learning level contribute more to the prediction of happiness, life and relationship satisfaction and resilience.

#### **1.4.1.2.        *Research Questions***

To answer the second major aim of this study, the variables selected for each domain will be examined for their unique and independent contribution to psychological wellbeing and distress outcomes. This will shed light on whether the importance of the constructs in predicting wellbeing and distress aligns with the importance that Franklin's model imposes upon them. The testing will be done in three parts. First of all, variables within adaptive learning, Personal and People Skills will be examined to determine their unique contribution. Second, the significant variables within each domain will be examined together to determine their contribution to the outcomes. Finally, all variables will be examined together irrespective of their unique contribution within their assigned domain.



## **Chapter Two**

### **2. Method**

#### **2.1 Participants**

Three hundred and twenty eight Australian residents (237 women, 91 men) participated in this study. The sampling method deliberately sought to recruit individuals with a range of levels of engagement with the community and levels of positive life outcomes. For this reason participants were recruited from a range of sources designed to identify people active or with some involvement in the community and includes one group identified as having difficulty engaging in the community to deliberately sample individuals with a wide range of scores on the outcomes of interest: 56 from religious groups, 105 from community and sporting groups, 42 first year university education students, 90 online respondents and 35 participants from government employment programs designed to help people with psychiatric illness or severe disadvantage attain greater community involvement. The aim was to recruit from a broad base of Australian residents.

Across the group, participants ranged in age from 18 to 75 ( $M=38.64$ ,  $SD=13.53$ ). Of the participants, 73.8% were born in Australia, 16.2% were born in English speaking countries and 9.8% were born in non-English speaking countries. Those born overseas reported living in Australia from 1 month to 60 years ( $M=19.13$ ,  $SD=14.46$ ). Participants reported community participation activities ranging from 0 to 4 ( $M=1.23$ ,  $SD=1.00$ ), and number of life events experienced over the last 6 months ranged from 0 to 27 ( $M=5.34$ ,  $SD=3.81$ ).

As expected, analysis of the groups by one-way between subjects analysis of variance (ANOVA) revealed significant differences between the groups in terms of

age, number of children, number of life events experienced over the last six months and number of community participation activities, offering confirmation of the diversity of respondents for the study.

## **2.2 Procedure**

Once approval for the study was obtained from the University Human Research Ethics Committee (approval number: HE03NOV2006-M04911), information about the study was disseminated to a suburban Sydney community sporting group and to church organisations through newsletters, flyers and announcements by club president and church members. Response rate was < 15%. Education students were approached during lectures, given an overview of the importance of the research to them as future teachers, and invited to participate. No course credit was offered. Just 25% of those who had taken a questionnaire returned the survey. To gain a greater diversity of respondents within Australia, online access was also made available. Participants were recruited via snowballing technique to colleagues and friends, notification to the organisations above and by posting the link on the Macquarie University Psychology Department noticeboard. To recruit participants from the Personal Support Programme (PSP) and Disability Employment Network (DEN), programs funded by the Department of Education Employment and Workplace Relations, the researcher directly approached case managers of a Sydney PSP provider. These programs provide support for clients with multiple non-vocational barriers such as psychiatric disability, homelessness, and drug and alcohol problems. Their aim is to help clients achieve economic or social outcomes such as obtaining employment, entering study or vocational training, increased community engagement or improved life skills. Response rate was approximately 5% despite all efforts to recruit respondents, which is typical for this group whose multiple barriers affect their

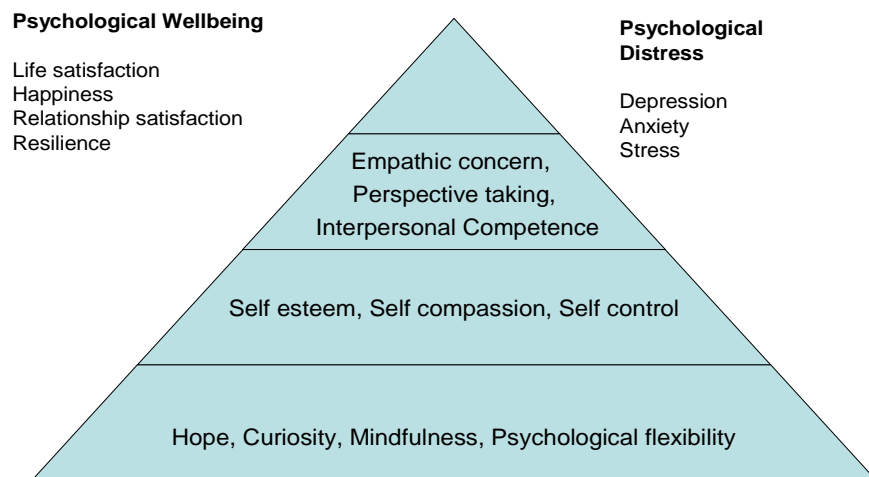
desire and ability to engage. This group is difficult to engage and suffers from significant social isolation (Perkins, 2005). Personal communication with case managers revealed that those respondents who did reply were more likely to have good rapport and a desire to please their case managers. All participants were offered \$5 to participate or \$5 to donate to the charity of their choice, and also offered the chance to enter a draw to win a \$200 gift voucher if completing the survey on two separate occasions.

Participants completed a pen and paper self-report questionnaire or completed the survey online. Those who completed the pen and paper version returned the survey to a locked box at their organisation to be collected by the researcher or returned via post using a stamped self-addressed envelope. Online respondents completed the questionnaire via a secure and confidential website through Macquarie University. The questionnaire took on average 50 minutes to complete, however some respondents reported that they spent up to two hours on the survey.

## **2.3 Measures**

The survey was comprised of a battery of construct measures deemed to tap into three domains of Franklin's developmental hierarchy. As previously stated in section 1.3.4, although a range of constructs may have been tested, these constructs, particularly at the adaptive learning and personal skills level were chosen on the basis that they reflect character strengths and/or positive emotions and/or skills based on acceptance and commitment therapy, are conceptually distinct and have evidence-based empirical support for their development. The questionnaire includes the outcome measures: life satisfaction, happiness and resilience. In exploring the contributions of positive psychology constructs to positive outcomes, it is important to

include assessment of negative outcomes (Keyes, 2002). A measure of psychological distress assessing depression, anxiety and stress was also included. The measures at each level are listed below and are demonstrated in Fig 2.1.



*Fig 2 1 Dependent and independent variables assessed in the evaluation of Franklin's model*

The survey also included demographic information such as age, marital status, employment status, income, education, community participation, such as volunteering. Participants were also required to indicate how many significant life events they had experienced over the last six months. As a prompt, the life events list from the Social Readjustment Scale (Holmes & Rahe, 1967) was provided. A further prompt included the statement: "Please include any other events in the last six months which you feel have had a significant impact on how you feel, how you see yourself and how you manage day to day."

## **2.3.1 Level One: Adaptive Learning**

### **2.3.1.1 Mindfulness**

*The Kentucky Inventory of Mindfulness Skills (KIMS)* (Baer, Smith & Allan, 2004) is a 39 item scale assessing four mindfulness components (observing, describing, acting with awareness, and accepting without judgement). A five-point Likert-type scale is used to indicate the extent to which an item is true for the individual, with higher scores indicating that the item is more often true. Eighteen items are reverse scored to prevent response bias. Item examples from each component include “I notice changes in my body, such as whether my breathing slows down or speeds up”, “I am good at finding words to describe my feelings”, “I make judgements about whether my thoughts are good or bad” and “When I’m doing something, I’m only focused on what I’m doing, nothing else”. This scale has demonstrated adequate to good internal consistency (.76 - .87) and test-retest reliability across two weeks (.65 -.86 across components) (Baer et al, 2004).

### **2.3.1.2 Curiosity**

*The Curiosity and Exploration Inventory (CEI)* (Kashdan, Rose & Fincham, 2004) is a 7-item 7-point Likert-type scale which assesses, an exploratory component of curiosity with four items eg “Everywhere I go I am out looking for new things or experiences” and an absorption or flow-like state of curiosity with three items e.g. “When I am participating in an activity, I tend to get so involved that I lose track of time”. The scale has demonstrated adequate reliability with alphas ranging from .72 to .80 for the total CEI and .63 to .64 for the two subscale components (Kashdan et al, 2004).

### **2.3.1.3 Hope**

*The State Hope Scale* (Snyder, Sympson, Ybasco, Borders, Babyak & Higgins, 1996) is designed to assess “a snapshot of a person’s current goal-directed thinking” (Snyder et al, 1996 p321). It is a six item self-report scale offering a total hope score, and two components that measure agency (for example, “At the present time I am meeting the goals I have set for myself”) and pathway thinking (planning to meet goals; for example, “I can think of many ways to meet my goals.”). Respondents are asked to focus on themselves and what is currently going on in their lives and rate the extent to which each item describes their thinking on an 8-point scale - where 8 is ‘definitely true’ and 1 is ‘definitely false.’ It has demonstrated sound psychometric properties, with high internal consistency, (alphas .82 - .95 for the total score) and strong discriminant validity.

### **2.3.1.4 Psychological Flexibility**

*The Acceptance and Action Questionnaire (AAQ)* is a measure which assesses psychological flexibility, specifically, willingness to accept distressing thoughts and feelings while acting in a way that is compatible with values and goals (Hayes et al., 2004). This study scored the measure using the two factor subscales: Willingness (for example, “It’s OK to feel depressed or anxious) and Action (for example, “Despite doubts I feel as though I can set a course in my life and stick to it” (Bond & Bunce, 2003). Responses are rated on a 7-point Likert – type scale with high scores indicating greater psychological acceptance. The original questionnaire was normed on a nonclinical and heterogeneous clinical population of over 2000 people and demonstrated good convergent and discriminant validity.

## **2.3.2 Level Two: Personal Skills**

### **2.3.2.1 Self-esteem**

Participants completed Rosenberg's (1965) 10-item Self-Esteem scale, which assesses global self-esteem (for example, "On the whole I am satisfied with myself"). This widely used measure has items on a four point Likert scale ranging from strongly agree to strongly disagree with high scores indicating high self esteem. It has demonstrated strong test –retest reliability from .82-.88 and good reliability with alphas ranging from .72 - .88 (Gray-Little, Williams & Hancock, 1997).

### **2.3.2.2 Self Compassion**

The Self Compassion Scale (Neff, 2003) is a 26 item scale measuring the dimensions Neff identified as assessing six domains of self compassion: self kindness versus self judgement or criticism, common humanity versus isolation (viewing one's negative experiences as part of the normal human condition), and mindful acceptance versus overidentification with painful thoughts and feelings. Items include "I try to be loving to myself when I'm feeling emotional pain", "when something painful happens I try to take a balanced view of the situation" and "When I'm feeling down I tend to feel like most other people are probably happier than I am" (reverse scored) and are rated on a 5-point scale indicating how the respondent typically acts toward himself in difficult times from *Almost never* (1) to *Almost always* (5). Mean scores from each subscale are summed and averaged to create an overall score. This measure has demonstrated good internal consistency reliability with alpha ranging from .92 to .94 (Neff, 2003, Neff, Kirkpatrick & Rude, 2007).

### **2.3.2.3 Self Control**

The Self Control Scale (Tangney, Baumeister & Boone, 2004) is a 36 item, 5-point measure which assesses the ability to regulate thoughts, behaviours and emotions to alter them. Items such as “I am good at resisting temptation”, and “I’m not easily discouraged” are rated on a 5-point scale indicating how much the statements reflect how the respondent typically is from *Not at all* (1) to *Very much* (5). The scale has demonstrated good psychometric properties with a reliability of .89 (Tangney et al, 2004).

## **2.3.3 Level Three: People Skills**

### **2.3.3.1 Empathy**

To assess aspects of empathy judged to be related to the third level of Franklin’s hierarchy (Understanding Others), two subscales of The Interpersonal Reactivity Index were used, (one emotionally and one cognitively oriented) (IRI; Davis, 1980). Use of the hierarchical structure of the IRI has been acknowledged with good reliability of the subscales demonstrated (Pulos, Elison & Lennon, 2004).

The *Perspective Taking* scale consists of 7 items on a 5-point scale assessing the ability to take another’s perspective in real-life situations, e.g. “When I’m upset at someone, I usually try to “put myself in his shoes” where (1) *does not describe me well* and (5) *describes me very well*.

The *Empathic Concern* scale is rated in the same manner and also consists of seven items assessing the extent of concern or feelings for others, e.g. “I often have tender, concerned feelings for people less fortunate than me”.



### **2.3.3.2 Interpersonal Competence**

*Interpersonal Competence Questionnaire (ICQ)* (Buhrmester, Furman, Wittenberg & Reis, 1988)

This measure is a 40-item scale that assesses five domains of interpersonal competence, specifically the ability to: initiate relationships, disclose personal information, assert displeasure, provide emotional support and manage interpersonal conflict. Examples of items from each domain respectively include : “Carrying on conversations with someone new whom you think you might like to get to know”, “Telling a close companion things about yourself that you’re ashamed of “, “Telling a companion that you don’t like a certain way he or she has been treating you”, “Helping a close companion get to the heart of a problem he or she is experiencing” and “When having a conflict with a close companion , really listening to his or her complaints and not trying to read his or her mind”. The items are rated on Levenson and Gottman’s (1978) 5-point scale asking for level of competence and comfort in carrying out each situation with higher scores indicating greater competence. Psychometric properties described by Buhrmester and colleagues (1988) conclude good test-retest reliability, and alpha levels ranging from .77-.87.

### **2.3.4 Outcomes: Successful Living in the World**

#### **2.3.4.1 Resilience**

The *Resilience Scale for Adults (RSA)* (Friborg, Barlaug, Martinussen, Rosenvinge & Hjemdal, 2005) is a 33 item, 5-point, semantic differential scale that measures the protective resources which promote resilience. High scores indicate greater resilience. Six subscale scores and a total score can be calculated. The subscales include: perception of self, perception of future, structured style, social competence, family cohesion and social resources. Semantic differential scales are aimed at reducing

acquiescence bias and offer bipolar statements to rate. Item examples from each subscale are respectively “My personal problems...are unsolvable/I know how to solve”, “I feel that my future looks...very promising/uncertain”, “I am good at ...organising my time/wasting my time”, “New friendships are something...I make easily/I have difficulty making”, “In my family we like to ...do things on our own/do things together”, “I get support from...friends, family members/no one” . It has demonstrated adequate reliability and validity, with Cronbach alphas ranging from .76 -.87.

#### **2.3.4.2 Life Satisfaction and Subjective Wellbeing**

The *Satisfaction with Life Scale (SWL)* (Diener et al, 1985) is a widely used 5-item measure of life satisfaction. Items such as “In most ways my life is close to my ideal” are rated on a 7-point scale from (1) *strongly disagree* to (7) *strongly agree*. The SWL has demonstrated adequate reliability and validity (Diener et al, 1985).

#### **2.3.4.3 Happiness**

Self-reported happiness was assessed with the single item: “I consider myself happy.” Happiness is rated on a 7-point Likert scale ranging from (1) ‘*strongly disagree*’ to (7) ‘*strongly agree*.’ Cummins (1995) argues that single item questions can yield reliable and valid data if assessing overall life satisfaction and Abdel-Khalek (2004) has demonstrated that using a single item to measure overall happiness is viable.

#### **2.3.4.4 Satisfaction with Relationships**

Self-reported satisfaction with relationships was assessed with the single item, “I am happy with my relationships” and was rated in the same manner as “happiness”.

#### **2.3.4.5 Psychological Distress**

##### **Depression Anxiety and Stress Scale (DASS)**

Depression, anxiety and stress were assessed with the 21-item short form DASS (Lovibond & Lovibond, 1995) which retains good psychometric properties (Antony, Bieling, Cox, Enns & Swinson, 1998). It has been normed on clinical and nonclinical populations and has adequate test-retest reliability ranging from .71 - .81 over two weeks (Brown, Chorpita, Korotitscw & Barlow, 1997).

#### **2.4 Data Preparation**

Data were checked for missing responses. There was a small amount of missing data spread randomly across variables and cases, at the item and scale level (<2%). No participant recorded >10% missing data in total. A missing value analysis was performed to determine the best way to handle the missing data (Hair et al, 1998). Little difference was found between mean substitution, pairwise or listwise analysis. As sample size is important to increase power (Tabachnik & Fidell, 2001), a pairwise analysis was used.

A check for skewness and kurtosis revealed that many variables followed a skewed distribution. Cummins (1995; 2008) has argued that life satisfaction and happiness generally vary slightly around a fixed set point of 75/100, therefore it is expected that distress and psychological wellbeing variables would be skewed in a community sample. Transformation was attempted on significantly skewed variables but, as some variables remained skewed; and transformed variables can be difficult to interpret; analyses were performed on original scores (Tabachnik & Fiddell, 2001). Furthermore, maximum likelihood (ML) estimation was used in analysis of the

measurement and structural models. ML estimation is sufficiently robust to moderate violations of normality and skewness and/or kurtosis values slightly beyond 2.0 and 7.0 respectively (Weston et al 2008).

To screen for multicollinearity, bivariate correlations of the model indicators were assessed. Values  $>.85$  may be problematic (Kline, 2005). Outliers were present but as there was no indication that they did not represent the population, or were unduly influential in the statistical results, they were retained to preserve sample size and generalizability of results.

## **2.5 Analytic strategy**

The aims of this study were to test Franklin's model of success and to examine the relative importance and unique contribution to psychological wellbeing and distress of constructs selected for the model. To determine the validity of Franklin's (2006) model, a number of analyses were undertaken. After data preparation, descriptive statistics for each construct and the reliability of the scales measuring each construct were calculated. To provide descriptive insights into the study's hypotheses that explore whether the constructs selected at goal motivated adaptive learning; Personal skills level; and People skills levels are appropriate for Franklin's (2006, 2009) model, that is, they are positively associated with psychological wellbeing and negatively associated with psychological distress outcomes, bivariate correlations were performed. Correlations were performed between:-

1. the constructs and the measures of self-reported psychological wellbeing and distress

2. the constructs and the culturally determined measures of success - income, employment status and education to provide further discriminant validity regarding the appropriateness of the constructs
3. the constructs and demographic variables of age and gender to determine whether there is an effect for age or gender that may be unrelated to psychological distress or wellbeing
4. intercorrelations of the constructs selected for each level.

To determine the discriminant validity of these constructs, analyses of variance (ANOVA) were performed assessing mean level differences in each construct between the participant groups.

To formally test the study's primary hypothesis concerning the validity of Franklin's model, a two step structural equation modelling (SEM) approach was undertaken (Anderson & Gerbing, 1988). At each level, measurement models were evaluated to assess the construct validity of the instruments used in this sample. This was achieved through confirmatory factor analyses using the program AMOS (v 16.0). To scale the measure, one path from the latent measure was scaled to 1. A range of factors can affect the sensitivity of the indices used to assess model fit, including sample size in the case of the chi square statistic (Browne & Cudeck, 1993), and model complexity (Hu & Bentler, 1998), therefore it is recommended that a number of fit indices are considered, including the Chi Square statistic for goodness-of-fit, the root mean square error of approximation (RMSEA), the comparative fit index (CFI) and the Tucker Lewis Index (TLI).

Guidelines for a good fit and a satisfactory model include a statistically nonsignificant Chi Square, an RMSEA  $<.05$ , and CFI and TLI  $>.95$  (Byrne, 2001). Nevertheless, CFI values may be interpreted to be good at levels  $>.90$  according to Rigdon (1998), and RMSEA may indicate an acceptable fit at levels  $<.08$  (Browne & Cudeck, 1993). If

RMSEA values fall between .05 and .1 Weston and colleagues (2008) suggest that sample size and model complexity should be considered.

Maximum likelihood (ML) estimation was used in analysis of the measurement and structural models. ML estimation is robust to moderate violations of normality and skewness and/or kurtosis values slightly beyond 2.0 and 7.0 respectively (Weston et al 2008).

The second step of the modelling process also took place within each level of Franklin's model. It involved linking the individual measurement models according to the structure proposed by Franklin (2006), and using structural equation models also fitted using AMOS. The structural model, as outlined by Franklin (2006), was tested at each level to estimate the acceptability of the model fit before testing the hierarchical nature of the model. The final step of the analysis in the planned methodology would have been further structural equation modelling that linked the structural model across levels; again according to the hierarchy proposed by Franklin (2006). However, as will be shown later, this step proved to be redundant. It was anticipated given the mathematical complexity of Franklin's model that respecification to improve fit may be required, however as Kline (2005) notes, results may capitalise on chance when models are retested on data from the same sample therefore further structural equation testing would be necessary for future research.

To formally test the second major aim of the study, multiple regression methods will be undertaken. This will allow the opportunity to explore the incremental value of each level of Franklin's model and the overlapping and unique contributions of each construct to wellbeing and distress outcomes. It also provides an avenue to explore whether different skills may be necessary to buffer distress or promote wellbeing.

The regression analyses were undertaken in three phases. The first phase preserves the structure of Franklin's model and examines the incremental value of each level of the hierarchy, incorporating all variables at each level regardless of their individual statistical significance. The second phase, preserving the basic structure of Franklin's model, specifically examines the variables that contribute unique variance to the outcomes at each level and within the model as a whole. The third phase repeats the second analysis without imposing the structure of Franklin's model to examine the value of the structure of the model overall.

The first regression analysis examines the hierarchical nature of Franklin's model through investigation of the incremental contribution of each level - adaptive learning, personal skills and people skills - to psychological wellbeing and distress outcomes through hierarchical multiple regression. In a true model of success, the variables that buffer the effect of negative or positive life experiences are important for resilience and overall wellbeing. Given the reported differences in the experience of depression, languishing and flourishing across age and gender (Keyes, 2002), it was considered important to control for age, gender and life events in the regression analysis. Therefore, at step one, gender, age and number of life events were added. At step two, the scales selected for the Adaptive learning level: Agency and Pathways subscales of hope, Action and Willingness of psychological flexibility, Explore and Absorption of curiosity, and Observe, Describe, Acceptance, and Aware action of mindfulness were added. At Step three, the Personal skills variables were added: self esteem, self control and the subscales of self compassion.

Finally, at Step four, the People skills variables were added to the model: empathic concern, perspective taking and the five subscales of interpersonal competence. All

variables were added regardless of their statistical significance in this first phase of the regression analyses.

The second and third phases of the regression analysis utilise a backward stepwise regression approach. In backward selection, SPSS enters all the predictor variables into the model. The weakest predictor variable is then removed and the regression re-calculated. If it significantly weakens the model then the predictor variable is re-entered otherwise it is deleted. This procedure is repeated until only independently statistically significant predictor variables remain in the model. In both phases, gender, age and life events were forced into the model regardless of statistical significance. The advantage of the backward approach is that the initial steps utilise the full correlation structure among the predictive variables. The risk of multicollinearity was minimised, as described earlier.

Guided by Sheldon and Hoon's (2007) method, which allows Franklins' model to be preserved, the second phase examined the contribution of the variables to psychological wellbeing and distress. The variables at the adaptive learning level – hope, psychological flexibility, curiosity and mindfulness – were compared to determine the constructs offering a measure of unique variance associated with the psychological wellbeing and distress outcomes – life satisfaction, happiness, relationship satisfaction and resilience, and depression, anxiety and stress.

Next, the variables at the personal skills level were compared – self esteem, self control and self compassion - for their unique contribution to the psychological wellbeing and distress outcomes. Then People skills level variables – empathic concern, perspective taking and interpersonal competence were compared. Finally,



those variables at each level that contributed unique variance to the outcomes were entered together.

The final regression analysis examines the effect of the variables when no structural model has been imposed. All the variables are entered together. Should Franklin's model provide a good representation of reality, it is expected that the results between the second and third analysis would differ, since the second analysis forces conformity to the hierarchy of Franklin's model, whereas the third analysis does not. Results are reported in the following chapter.



### 3. Results

This chapter describes the participants and presents the results of the analyses that answer each hypothesis. It is divided into three major parts. The first Part, (sections 3.1 – 3.5), reports on descriptive statistics and answers questions regarding the suitability and relevance of the variables selected for Franklin's model, and their prediction of psychological wellbeing and distress. The second part, within sections 3.6 – 3.8, answers the structural equation modelling questions and the final part, 3.9, reports on the results of the regression analyses. All data analyses were performed using SPSS for Windows Version 16.0 and AMOS 16.0. Unless otherwise stated, a statistical significance level of 0.05 was adopted. Abbreviations for each construct are provided in the glossary.

#### 3.1 Descriptive Statistics

Means, standard deviations and scale reliability (Cronbach's  $\alpha$ ) for each construct are displayed in Table 3.1. Nunnally (1978) suggested that self-report indices with internal reliabilities ( $\alpha$ ) in the .7 to .8 range are acceptable for research purposes. As can be seen in Table 3.1, most subscales and scales displayed  $\alpha$  scores between .70 and .93. The Absorption subscale of Curiosity is the most problematic scale, with an  $\alpha$  of .69, however given the number of scales used in the study; and that this is only marginally below the nominal threshold; it is considered acceptable in this instance. Scores for self esteem and self compassion are consistent with population results reported elsewhere (Neff, 2006; Rusticus, Hubley & Zumbo, 2004) Although falling within the normal range, the depression, anxiety and stress scores are slightly higher than other reported norm results ( Crawford & Henry, 2003).

Table 3.1 Means and Standard Deviations of Construct Measures

Scale	Numb of items	Possible Range	Observe Range	Alpha	Mean	SD
<b>Level One – Adaptive Learning</b>						
<b>Kentucky Inventory of Mindfulness Scale (KIMS).</b>	39					
Observe	12	12 - 60	17-58	.84	39.26	7.66
Describe	8	8 - 40	10-40	.89	28.00	6.04
Aware action	10	10 - 50	14-45	.79	29.55	5.67
Acceptance	9	9 - 45	9-45	.88	28.76	7.19
<b>State Hope Scale -total</b>	6	6 - 48	10-48	.89	34.05	8.31
pathways	3	3 - 24	4-24	.80	17.47	4.11
agency	3	3 - 24	3-24	.87	16.56	4.84
<b>Psychological flexibility</b>	16	16 - 112	31-110	.81	72.87	12.62
action	9	9 - 63	18-62	.74	42.91	7.30
willingness	7	7 - 49	8-49	.70	29.97	7.11
<b>Curiosity Scale Total</b>	7	7 - 49	18-49	.72	32.95	5.81
Explore	4	4 - 28	10-28	.70	20.20	3.88
Absorption	3	3 - 21	3-21	.69	12.75	3.33
<b>Level Two – Personal Skills</b>						
<b>Self Control Scale</b>	36	36 - 180	56-171	.90	119.95	19.05
<b>Self Compassion Total</b>	26	1-5	1-5	.91	3.17	0.76
Kindness	5	1-5	1-5	.86	3.16	0.85
Common humanity	4	1-5	1-5	.82	3.38	0.89
mindfulness	4	1-5	1-5	.77	3.42	0.77
judgement	5	1-5	1-5	.88	3.06	0.96
isolation	4	1-5	1-5	.85	3.06	1.00
over identification	4	1-5	1-5	.85	2.99	0.98
<b>Rosenberg Self Esteem Scale</b>	10	10 - 40	10-40	.91	30.55	6.45
<b>Level Three- People Skills</b>						
Empathic concern	7	7 - 35	9-35	.77	28.13	4.55
Perspective taking	7	7 - 35	8-35	.80	24.96	4.95
<b>Interpersonal Competence (IC)</b>						
IC Initiation	8	8 - 40	8 - 40	.90	25.48	6.85
IC Negative assertion	8	8 - 40	8 - 40	.90	23.98	6.59
IC Disclosure	8	8 - 40	8 - 40	.88	25.15	6.35
IC Emotional support	8	8 - 40	8 - 40	.90	32.09	5.26
IC Conflict management	8	8 - 40	11-39	.84	27.17	5.22
<b>Level Four - Success Outcome</b>						
<b>Life Satisfaction Scale</b>	5	5 - 35	5-35	.91	22.83	7.54
<b>Perceived Happiness</b>	1	1 - 7	1-7		5.11	1.58
<b>Perceived Satisfaction with Relationships</b>	1	1 - 7	1-7		5.02	1.78
<b>Resilience Total</b>	33	5 - 165	60-162	.93	122.96	20.26
Perception of self	6	6 – 30	7-30	.83	21.63	4.73
Planned future	4	4 – 20	4 – 20	.88	14.85	3.88
Structured style	4	4-20	4-20	.70	14.35	3.23
Social competence	6	6 – 30	9-30	.77	21.05	4.61
Family cohesion	6	6 – 30	8-30	.89	22.20	5.24
Social resources	7	7 - 35	7-35	.90	29.13	5.74
<b>Psychological Distress</b>						
Depression	7	0 - 42	0 - 42	.91	8.97	9.45
Anxiety	7	0 - 42	0 - 42	.87	7.52	8.70
Stress	7	0 - 42	0 - 42	.89	13.25	9.80

See glossary for terms

### **3.2 Hypothesis One**

*Hypothesis One:* The individual elements selected for inclusion in Franklin's model (2006, 2009) will relate to the outcomes in question, that is, are positively associated with life and relationship satisfaction, self-reported happiness and resilience, and negatively associated with depression, anxiety and stress .

Correlations were examined between the elements within the model to ensure that the individual elements show the hypothesised relationships with the indicators of psychological wellbeing and distress (see Table 3.2).

Examination of Table 3.2 shows that the majority of variables in levels one, two and three of Franklin's hierarchy demonstrate significant weak to moderate relationships with the indicators of psychological wellbeing and distress in the hypothesised directions, that is, positively associated with wellbeing and negatively associated with distress.

#### **Key Observations from Table 3.2**

Within Level One of Franklin's (2006, 2009) model - goal motivated adaptive learning - higher reported levels of curiosity, psychological flexibility, and hope were associated with greater reports of happiness, relationship and life satisfaction and resilience; whereas, lower levels of psychological flexibility and hope were associated with increased levels of depression, anxiety and stress. However, lower reported levels of the Explore subscale of curiosity were only significantly related to increased depression and not to stress or anxiety. The Absorption subscale of curiosity revealed a significant positive relationship with stress and no significant relationship with other psychological wellbeing or distress outcomes. While the Mindfulness domains of Describe, Aware action and Acceptance demonstrated the predicted

Table 3. 2. Correlations among variables at each level with psychological wellbeing and distress variables  
 \*\*p<.01, \* p<.05

	Subjective rating of happiness	Subjective rating of relationship satisfaction	Lifesatis	Resilience	Depression	Anxiety	Stress
<b>Level one – Adaptive learning</b>							
C Explore	.230(**)	.143(**)	.238(**)	.353(**)	-.211(**)	-0.106	-0.098
C Absorption	-0.049	-0.055	0.005	0.046	0.042	0.096	.174**
PF Action	.478(**)	.345(**)	.466(**)	.638(**)	-.633(**)	-.505(**)	-.514**
Pf Willingness	.431(**)	.301(**)	.402(**)	.453(**)	-.494(**)	-.427(**)	-.430**
H Pathways	.532(**)	.372(**)	.528(**)	.592(**)	-.471(**)	-.345(**)	-.357**
H Agency	.657(**)	.507(**)	.683(**)	.648(**)	-.548(**)	-.351(**)	-.381**
Observe	0.040	0.068	0.066	.174(**)	-0.003	0.074	0.085
Describe	.260(**)	.176(**)	.262(**)	.395(**)	-.261(**)	-.262(**)	-.232**
Aware action	.201(**)	.208(**)	.199(**)	.298(**)	-.303(**)	-.205(**)	-.270**
Acceptance	.416(**)	.268(**)	.314(**)	.387(**)	-.538(**)	-.433(**)	-.524**
<b>Level two- Personal Skills</b>							
Self esteem	.610(**)	.478(**)	.578(**)	.684(**)	-.710(**)	-.534(**)	-.586**
S control	.397(**)	.350(**)	.376(**)	.484(**)	-.530(**)	-.397(**)	-.453**
SC Kindness	.510(**)	.440(**)	.471(**)	.550(**)	-.525(**)	-.412(**)	-.484**
SC Humanity	.397(**)	.342(**)	.382(**)	.485(**)	-.430(**)	-.277(**)	-.335**
SC Mindfulness	.480(**)	.383(**)	.473(**)	.575(**)	-.486(**)	-.379(**)	-.494**
SC judgement	.465(**)	.390(**)	.429(**)	.503(**)	-.557(**)	-.425(**)	-.545**
SC Isolation	.592(**)	.533(**)	.524(**)	.603(**)	-.644(**)	-.462(**)	-.563**
SC Overidentification	.488(**)	.416(**)	.446(**)	.517(**)	-.577(**)	-.466(**)	-.618**
<b>Level three – People Skills</b>							
Empathic concern	.142(*)	.145(**)	.139(*)	.330(**)	-.174(**)	-0.068	-.133*
Perspective taking	.250(**)	.220(**)	.255(**)	.337(**)	-.266(**)	-.220(**)	-.240**
IC initiation	.302(**)	.286(**)	.291(**)	.567(**)	-.297(**)	-.176(**)	-.169**
IC Neg assertion	.242(**)	.243(**)	.235(**)	.378(**)	-.252(**)	-.116(*)	-.173**
IC Disclosure	.347(**)	.311(**)	.317(**)	.479(**)	-.306(**)	-.209(**)	-.181**
IC Emot support	.192(**)	.130(*)	.204(**)	.428(**)	-.165(**)	-.126(*)	-.110*
IC Conf management	.210(**)	.215(**)	.191(**)	.384(**)	-.228(**)	-.134(*)	-.265**

relationships, the Observe subscale was only significantly associated with Resilience.

Within Level Two - Personal Skills - higher levels of self esteem, self compassion and self control were significantly associated with all psychological wellbeing variables and negatively associated with depression, anxiety and stress as predicted.

For Level Three - People Skills - Interpersonal competence, Perspective taking and Empathic concern were positively associated with reports of psychological wellbeing

and negatively associated with psychological distress variables, with the exception of Empathic concern which showed no significant relationship with anxiety.

**Summary: Hypothesis one** states that higher levels of the constructs selected for inclusion in the model will be associated with increased levels of reported wellbeing and decreased levels of psychological distress. Of those selected for the Goal Motivated Adaptive Learning level; hope, psychological flexibility and three sub-domains of mindfulness – Describe, Acceptance and Aware action demonstrated the predicted relationships. Within the Personal and People Skills levels; self esteem, self compassion, self control, interpersonal competence and perspective taking also demonstrated the predicted relationships. The Explore subscale of curiosity and Empathic concern demonstrated the predicted relationship with psychological wellbeing and depression, but neither showed a significant association with anxiety, or stress in the case of Explore. The Observe sub-domain of mindfulness was associated with one psychological wellbeing outcome, resilience.

### 3.3 Hypothesis Two

*Hypothesis Two:* Participants reporting higher levels of the constructs within Franklin's (2006, 2009) model will be employed, have greater income and report more years of education.

The first step in testing this hypothesis is to confirm that the culturally-determined indicators of "success": income, education, and employment are associated with psychological distress and wellbeing. Correlations of demographic variables with constructs and psychological wellbeing and distress outcomes were performed and are presented in Table 3.3. With respect to family income, higher income was

significantly related to increased reports of happiness, relationship satisfaction, life satisfaction and resilience, and decreased reports of depression, anxiety and stress. Years of education were significantly related to all outcome variables except satisfaction with relationships. Specifically, more years of education were associated with increased resilience, life satisfaction and happiness scores and decreased reports of depression, anxiety and stress.

With respect to full time employment or study, participants reporting greater depression, anxiety and stress were less likely to be in full time employment; and those in full-time employment or study, were more likely to report greater happiness, life satisfaction and resilience.

**Summary:** Overall, the culturally-determined indicators of success – income, education and employment – are associated in the predicted directions with psychological wellbeing and distress.

Given these findings, it was appropriate to explore the relationship between these “social” indicators of success and the constructs selected for Franklin’s model. Weak to moderate correlations were found between demographic variables that reflect culturally determined indicators of success and the measured constructs on the adaptive learning, Personal Skills and People Skills domains of Franklin’s model (See Table 3.3). Notable results are provided below.

### **3.3.1 Employment**

Participants who were not in full-time employment or study were more likely to report lower levels of psychological flexibility; the Pathways component of hope; and the Aware action and Acceptance components of mindfulness. Lower levels of self



esteem, self control and most components of self compassion (except Kindness and Common humanity) as well as lower levels of Perspective taking were also reported by participants less likely to be in full-time employment.

### **3.3.2 Income**

Increased income showed weak to moderate correlations with higher levels of psychological flexibility and hope; and weak significant correlations with two components of mindfulness - Describe and Acceptance.

Weak to moderate correlations were found for the Personal Skills strengths; with increased income associated with higher levels of self esteem, self control and self compassion. For People Skills strengths; weak correlations were present, with higher levels of interpersonal competence, specifically Initiation and Emotional support, associated with higher levels of income.

### **3.3.3 Years of Education**

Weak correlations were demonstrated with higher levels of psychological flexibility, hope, Explore, Describe and Acceptance associated with increased education. Weak correlations were also found with self esteem, self control and the Kindness, Common humanity - and Mindful subscales of self compassion associated with more years of education. At the People skills level of Franklin's (2006, 2009) model, Perspective taking and Emotional support were associated with higher levels of education.

### **3.3.4 Age, Gender and Marital Status Relationships**

To explore any effect for gender, age and marital status that may affect conclusions regarding the constructs, bivariate correlations between the constructs selected for Franklin's (2006, 2009) model and age, gender and marital status are reported in Table 3.3.

Older participants were significantly more likely to be married, report greater satisfaction with their relationships, show greater resilience and were less likely to report depression, anxiety and stress symptoms. They also tended to report fewer life events over the last six months compared to younger participants.

For the goal motivated adaptive learning level of Franklin's model, older participants did tend to report higher scores on the Action subscale of psychological flexibility and two domains of mindfulness, Aware action and Acceptance. Older participants also reported higher scores of self esteem, self compassion, and self control within the Personal Skills level of the model; and higher scores on the Empathic concern, Perspective taking and Conflict management subscales within the People Skills level of Franklin's model.

There was no correlation between gender and the demographic variables of marital status, employment, income, and years of education. However, women did tend to report greater levels of Empathic concern, Perspective taking and Emotional support on the People Skills domain. They also recorded higher scores on the Common humanity subscale of self compassion, within the Personal Skills domain of the model, but tended to report lower levels on the subscale Overidentification from the latter domain and also on the Aware action domain of mindfulness within the adaptive learning level of Franklin's model (2006, 2009).

Participants who stated that they had a partner tended to report higher levels of psychological flexibility, hope and the Acceptance domain of mindfulness, as well as higher levels of self compassion, self control and self esteem. However, there were no significant correlations with strengths within the People Skills domain.

**Summary: Hypothesis Two** states that participants reporting increased scores on the constructs with each level will be employed, have a higher income and report more years of education.

At the goal motivated adaptive learning level participants reporting increased levels of psychological flexibility, hope, and the Describe subdomain of mindfulness are more likely to be employed or in full-time study, have a greater income and more years of education. Those who report increased levels of Acceptance are more likely to have a higher income and more years of education whereas those who report increased levels of the Explore subscale of curiosity tend to have more years of education.

At the Personal Skills level, participants reporting greater self compassion overall are likely to have a higher income. Those who report greater self esteem are more likely to be employed or in full-time study, have a greater income and more years of education, whereas those who report greater self control are more likely to have more years of education and a higher income. Participants reporting higher levels of the self compassion subscales Common humanity and Mindful are more likely to be employed and have more education, and those who report higher levels of Kindness are also likely to have more education.

At the People Skills level, participants reporting higher scores on the Emotional Support subscale of interpersonal competence are more likely to be employed or in full-time study, have a greater income and more years of education. Those who report higher scores on the Initiation domain of interpersonal competence tend to report a higher income and those who report higher scores on Perspective taking tend to report more years of education.

Table 3.3 Correlations between demographic variables, outcomes and variables at each level of Franklin's model.

	Age	Gender	Marital status	Number of children	Employment	Family income	Education	Community participation	Number of life events
Gender	-0.08								
Marital status	.39**	0.02							
Number of children	.661**	0.04	.41***						
Employment	.24**	0-.06	-.07	-.179**					
Family income	0.07	0.08	.46***	.11*	-.36***				
Education	-.09	0.07	0.08	-0.01	-0.23***	.29***			
Community participation	0.10	-0.10	0.08	.24**	-0.01	0.02	.04		
Number of life events	-.21**	-0.03	-.14*	-.17**	-.04	-.12*	-0.05	0.09	
Subjective happiness	0.06	0.08	.22***	.111*	-.13*	.19*	0.16**	.153**	-.22**
Subjective relationship satisfaction	.17**	0.04	.34***	0.10	-0.06	.24**	0.10	.155**	-.18**
Life satisfaction	0.08	0.05	.31***	0.11	-.14*	.23***	0.20***	.188**	-.20**
Resilience	.127*	0.07	.26***	.127*	-.16**	.28***	.21***	.234**	-.19**
Depression	-	-0.06	-.28***	-.147**	.17**	-.29***	-.17**	-.154**	.28**
Anxiety	-.160**	-0.06	-.25***	-0.10	.16**	-.33**	-.27***	-0.09	.319**
Stress	-	-0.04	-.27***	-.21**	.08	-.25***	-.12*	-0.07	.302**
<b>Level One, Adaptive Learning Skills</b>									
C Explore	-0.08	-0.02	0.04	0.01	-.06	0.08	0.14**	.116*	.169**
C Absorption	-0.01	-0.08	-.01	0.01	-0.02	-.02	-0.06	0.06	.117*
PF Action	.153**	-0.01	.199***	.18**	-.19**	.29***	.19***	.204**	-.149**
Pf Willingness	0.04	0.06	0.22***	.131*	-.19**	.25**	.164**	.143**	-.129*
H Pathways	0.05	0.05	0.17**	.115*	-.20***	.30**	0.21***	.117*	-0.02
H Agency	0.07	0.08	.23***	.117*	-.25***	.25***	.26***	.196**	-0.05
Observe	0.04	0.02	.04	-0.01	0.01	0.02	0.07	0.03	.271**
Describe	0.00	0.06	.07	0.08	-0.12*	.16**	.27**	0.03	0.05
Aware action	.199**	-.206**	0.11	.112*	.04	0.03	0.16	0.02	-.178**
Acceptance	.186**	0.04	0.197***	.181**	.002	.12*	0.12*	0.06	-.297**
<b>Level Two, Personal Skills</b>									
Self esteem	.207**	-0.02	.273***	.219**	-.12*	.27**	0.12*	.186**	-.216**
S Control	.295**	-0.04	.269***	.217**	-0.03	.12*	.15**	.186**	-.186**
SC Kindness	.198**	0.01	.215***	.163**	-0.09	.15**	.15**	.135*	-.147**
SC Humanity	.179**	.130*	.208***	.258**	-.14*	.19**	.17*	.131*	-0.08
SC Mindfulness	.164**	-0.03	.169**	.187**	-.15**	.21**	0.13*	.214**	-.112*
SC Judgement	.215**	-0.05	.272***	.217**	-.06	.18**	0.098	0.1	-.268**
SC Isolation	.231**	-0.10	.249***	.199**	-.09	.24**	0.11	.216**	-.246**
SC Overidentification	.259**	-.168**	.278***	.261**	-.05	.18**	0.08	.198**	-.210**
<b>Level Three, People Skills</b>									
Empathic concern	.131*	.249**	.08	.139*	-0.05	0.05	0.096	0.083	0.06
Perspective taking	.112*	.110*	.08	.128*	-.06	0.10	.198**	.124*	-0.06
IC initiation	0.04	-0.01	.06	0.04	-0.03	.14**	.04	.174**	0.03
IC Neg assertion	-0.01	-0.05	.07	0.00	-0.05	0.11	.00	0.017	0.01
IC Disclosure	-0.02	0.04	.05	-0.01	-.095	0.04	0.1	.116*	0.06
IC Emot support	-0.01	.169**	.01	0.01	-0.14*	.18**	.17**	.118*	0.08
IC Conf management	.119*	-0.01	.06	0.10	-0.02	0.05	0.05	.158**	-0.02

\*\*\*p<.001, \*\*p<.01, \*p<.05

**Note:** A negative correlation with employment means that respondents are less likely to be employed or studying.

### 3.4 Hypothesis Three

*Hypothesis Three:* Participants who have been identified as having barriers to community engagement will report lower construct levels than those engaged in the community.

The third hypothesis investigated the discriminant validity in the context of the individual elements within Franklin's (2006, 2009) model by examining group differences in reported levels of the constructs, between those engaged in the community and those who have been identified as disengaged. Although the variables are conceptually related and the control of experiment-wide error rate (Tabachnik & Fidell, 1998) is appropriate, a multivariate analysis of variance (MANOVA) could not be performed because a range of assumptions were violated, for example, the assumption of homogeneity of variances across groups, multivariate normality and the sample sizes are different (Field, 2005). Correlations between the elements within each level were performed - and are displayed in Tables 3.5 - 3.8. Controversy exists regarding the degree of correlation between the dependent variables for appropriate power of MANOVA (Field, 2005).

Within level one - adaptive learning - there was no relationship between curiosity and the Mindfulness domain of acceptance without judgement; and no relationship between psychological flexibility and the Observe domain of Mindfulness.

Correlations within level two - the Personal Skills domain - the correlations between self esteem and self compassion, and self compassion and self control may be too high for a MANOVA (Leech, Barrett & Morgan, 2008).

Within level three, the correlations between empathic concern, perspective taking and the domains of interpersonal competence were appropriate but those within the interpersonal competence domain were not. Univariate analyses of variance were performed. Given the hypothesis that participants within the PSP/DEN programs will report lower levels of strengths than those engaged in the community, planned contrasts were performed.

Table 3.4 reports the F- ratio, degrees of freedom and significance of the effect of group on levels of the constructs; as well as the results of the planned contrasts with the effect size. There was a significant effect for group based on mean scores for some, but not all of the dependent variables within each level of Franklin's model (see table 3.4), with those that are significant demonstrating for the most part a small ( $\eta = .10$ ) to moderate ( $\eta = .24$ ) effect. However, the effect of hope and psychological flexibility is approaching the large range ( $\eta = .37$ ) (Leech, Barrett & Morgan, 2008).

Table 3.4. ANOVA and planned contrast results for PSP/DEN vs other group participants

	F (df)	Sig.	t (df)	df	Sig.	eta
<b>Level one, adaptive learning</b>						
Hope	9.854 (4,322)	.000	6.075	322	.000	.33
Psychological flexibility	12.283(4, 323)	.000	6.966	323	.000	.36
Describe	4.902 (4, 322)	.001	3.491	322	.001	.24
Acceptance	3.213(4,322)	.013	2.330	322	.020	.19
<b>Level two, Personal Skills</b>						
Self esteem	9.326 (4,323)	.000	5.446	323	.000	.32
Self control	2.749 (4,323)	.028	2.681	323	.008	.18
Self compassion	5.903 (4,317)	.000	4.616	317	.000	.26
<b>Level three, People Skills</b>						
Empathic concern	4.185 (4,323)	.003	4.006	323	.000	.22
Perspective taking	5.091 (4, 323)	.001	3.318	323	.001	.24
IC Emot support	4.797 (4, 321)	.001	3.688	321	.000	.24
IC Conflict manag	2.450 (4, 321)	.046	2.413	321	.016	.17

Note: F test pertains to the global test across all groups whereas the t-test pertains to the specific planned contrasts

**Summary:** Hypothesis three states that participants who have been identified as having barriers to community engagement will report lower levels of strengths than those engaged in the community. Planned comparisons revealed that participants from PSP/DEN programs did report lower levels of hope, psychological flexibility, two domains of mindfulness - Describe and Acceptance, self esteem, self control, self compassion, empathic concern, perspective taking, Interpersonal competence - emotional support and conflict management.

### **3.5 Hypothesis Four: Intercorrelations of variables within each level of Franklin's model.**

*Hypothesis Four:* Given the likely empirical overlap between the elements within each domain, the individual elements will demonstrate an association with each other which may signify some conceptual or theoretical overlap.

As such, for the goal motivated adaptive learning domain; hope, curiosity, mindfulness and psychological flexibility will be correlated. For the Personal Skills domain; self compassion and self esteem will be correlated; and for the interpersonal domain; interpersonal competence and empathy constructs will be correlated.

The next step in testing Franklin's model is to investigate the relationship between the variables within each level of the hierarchy. If these variables contribute to the latent construct underscoring each level, there should be a weak to moderate relationship. However, if the relationship is too strong, the variables are less likely to contribute unique variance to the latent construct. As apparent from Tables 3.5 – 3.8; intercorrelations for levels one, two and three constructs fell below Kline's (2005) critical value of .85, indicating that multicollinearity is not an issue with this sample.

### 3.5.1 Level One (Adaptive learning) Intercorrelations

Bivariate correlations investigated for level one of the model (see Table 3.5) include the relationship between the variables: Curiosity subscales - Explore and Absorption, Hope subscales - Pathways and Agency, Psychological flexibility subscales, Action and Willingness, and the Mindfulness subscales-Observe, Describe, Aware action and Acceptance. Whole scale correlations are provided in Table 3.6.

The pattern of correlations in Tables 3.5 and 3.6 supports the hypothesised first level of Franklin's model in a general sense. Most constructs show expected relationships with weak to moderate positive correlations, suggesting that there is some shared variance. Fig 3.1 provides an example of the relationship between the Agency subscale of hope and the Action subscale of psychological flexibility ( $r = .59$ ,  $p < .001$ ).

Nevertheless, some constructs demonstrate no relationship. The Absorption subscale of curiosity has only small significant positive correlations with the Pathways subscale of hope ( $r = .147$ ,  $p < .01$ ), the Observe ( $r = .122$ ,  $p < .05$ ), and Aware action domains of mindfulness ( $r = .186$ ,  $p < .01$ ); and a small negative correlation with Acceptance  $r = -.135$ ,  $p < .05$ ). The Explore subscale demonstrates no relationship with the component Acceptance without judgement and Observe was not significantly correlated with Psychological Flexibility constructs (see scatterplot, Fig 3.2), or Aware action.



Table 3.5. Intercorrelations of Adaptive learning variables

	1	2	3	4	5	6	7	8	9
1.C Explore									
2.C Absorption	.296(***)								
3.H Pathways	.438(***)	.147(**)							
4.H Agency	.368(***)	0.018	.725(***)						
5.PF Action	.386(***)	0.021	.548(***)	.592(***)					
6.PF	.271(***)	-0.074	.419(***)	.429(***)	.532(**)				
Willingness									
7.Observe	.368(***)	.122(*)	.238(***)	.156(**)	0.070	0.023			
8.Describe	.443(***)	0.015	.434(***)	.371(***)	.401(**)	.378(***)	.359(***)		
9.Aware action	.167(**)	.186(**)	.262(***)	.267(***)	.321(**)	.152(**)	0.031	.261(***)	
10.Acceptance	0.09	-.135(*)	.275(***)	.364(***)	.496(**)	.545(***)	-.230***	.181(**)	.356(***)

\*\*\*Correlations significant at <.001 \*\* Correlations significant at <.01 \* Correlations significant at <.05 (2-tailed)

Table 3.6. Intercorrelations of totalled scales

	Curiosity	Psych_flexibility	Hope
Psych_flexibility	.234(**)		
Hope	.333(**)	.613(**)	
Observe	.317(**)	0.053	.206(**)
Describe	.305(**)	.445(**)	.429(**)
Aware action	.221(**)	.271(**)	.284(**)
Acceptance	-0.016	.594(**)	.348(**)

\*\*\*p<.001 \*\*p<.01

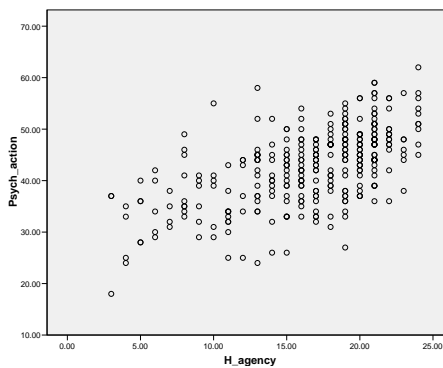


Fig 3.1 Scatterplot PF Action and H Agency

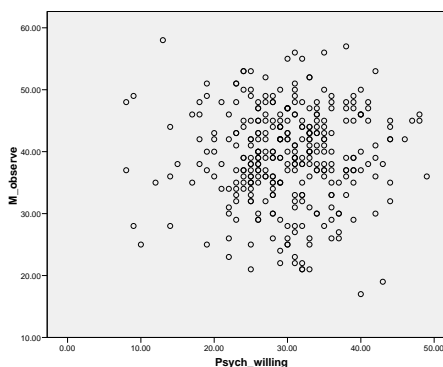


Fig 3.2 Scatterplot Observe and PF Willingness

### 3.5.2 Level Two (Personal Skills- Understanding Self) Intercorrelations

Bivariate correlations investigated for level two (Personal Skills) of the model include self esteem, self control and the six domains of self compassion. Intercorrelations of level two constructs demonstrate strong correlations, again supporting the model, however correlations remain below .85 suggesting that multicollinearity is not a problem. See Table 3.7. Self esteem is most strongly correlated with the Kindness and Isolation subscales of self compassion. The domains of Self compassion are also strongly correlated; however, Common humanity is only moderately correlated to the domains of Selfjudgement, Isolation and Overidentification. When the domains of self compassion are combined to give an overall construct, self compassion is strongly correlated to self esteem ( $r = .79$ ,  $p < .001$ ) and to self control, ( $r = .61$ ,  $p < .001$ )

Table 3.7 Intercorrelations of Personal Skills variables

	1	2	3	4	5	6	7
1.Self esteem							
2.Self control	.558(***)						
3.SC Kindness	.688(**)	.464(**)					
4.SC Humanity	.558(**)	.392(**)	.652(**)				
5.SC mindfulness	.652(**)	.519(**)	.703(**)	.700(**)			
6.SC judgement	.661(**)	.515(**)	.735(**)	.407(**)	.534(**)		
7.SC Isolation	.706(**)	.537(**)	.654(**)	.449(**)	.587(**)	.752(**)	
8.SC Overidentification	.650(**)	.587(**)	.624(**)	.427(**)	.612(**)	.771(**)	.784(**)

\*\* $p < .01$ , \* $p < .05$

### 3.5.3 Level Three People Skills

In level three (People Skills) the bivariate correlations among Empathic concern, Perspective taking and the five domains of Interpersonal Competence were investigated. As apparent from Table 3.8, these constructs demonstrate hypothesised relationships with weak to moderate positive correlations again suggesting some shared variance. The weakest correlation was between Empathic concern and the Negative assertion domain of Interpersonal competence, ( $r = .11$ ,

$p < .05$ ), and the strongest correlations were found for Perspective taking and the Conflict management domain ( $r = .58$ ,  $p < .01$ ).

Table 3.8. Intercorrelations among People Skills variables

	1	2	3	4	5	6
1. Empathic concern	1					
2. Perspective taking	.509(**)	1				
3. IC Initiation	.244(**)	.264(**)	1			
4. IC Neg assert	.109(*)	.168(***)	.535(**)	1		
5. IC Disclosure	.349(**)	.294(**)	.640(**)	.544(**)	1	
6. IC Emot support	.502(**)	.409(**)	.491(**)	.374(**)	.603(**)	1
7. IC Conf manage	.341(**)	.579(**)	.430(**)	.390(**)	.480(**)	.623(**)

\*\* $p < .01$ , \* $p < .05$

### 3.5.4 Outcome Variables (Psychological Wellbeing and Distress)

As expected, strong positive correlations were demonstrated with happiness, relationship satisfaction, life satisfaction and resilience, see Table 3.9. These constructs were negatively associated with depression, anxiety and stress as expected. The correlation between life satisfaction and happiness was  $r = .83$ ,  $p < .01$ . Correlations between these two variables and the constructs at each level are similar as can be seen by Tables 3.2 and 3.3; however happiness is significantly correlated with marital status and number of children as illustrated in Table 3 unlike life satisfaction, suggesting that they do represent different domains of psychological wellbeing.

Table 3.9. Intercorrelations among outcome variables

	1	2	3	4	5	6
1. Subjective rating of happiness	1					
2. Subjective rating of relationship satisfaction	.720(**)	1				
3. Life satisfaction	.825(**)	.700(**)	1			
4. Resilience	.599(**)	.514(**)	.634(**)	1		
5. Depression	-.65(**)	-.49(**)	-.57(**)	-.66(**)	1	
6. Anxiety	-.43(**)	-.35(**)	-.44(**)	-.47(**)	.68(**)	1
7. Stress	-.47(**)	-.38(**)	-.43(**)	-.46(**)	.70(**)	.698(**)

\*\* $p < .01$ , \* $p < .05$

**Summary:** results for hypothesis four which argued that constructs within each level or domain of Franklin's (2006, 2009) model would be correlated are for the most part as predicted. Notable exceptions include C Absorption which has a negative

correlation towards Acceptance. C Explore shows no correlation with Acceptance, and Observe was unrelated to psychological flexibility or Acceptance. This suggests that these constructs may be unrelated to an Adaptive learning domain. The intercorrelations of the Personal skills domain offer strong support that self esteem, self compassion and self control may underscore an overarching domain, whereas the intercorrelations of the People skills domain only offer weak support.

### **3.6 Hypothesis Five:**

*Hypothesis Five* : Structural modelling will reveal mindfulness, curiosity, hope and psychological flexibility load onto the latent domain of goal motivated adaptive learning; self compassion, self esteem and self control should load onto the Personal Skills domain, “understanding self”; and interpersonal competence, perspective taking and empathic concern should load onto the People Skills domain, “understanding others”.

#### **3.6.1 Measurement Models**

Following the two-step approach to SEM (Anderson & Gerbing, 1988), the next step in testing Franklin’s model is to ensure that the measurement models afford a good fit for each construct. The measurement portion of the model entails confirmatory factor analyses (CFA) to assess the scales that are measuring the constructs at each level. At level one of Franklin’s model is the Curiosity Exploration Inventory (CEI), Acceptance and Action Questionnaire (AAQ), Hope scale, and Kentucky Inventory of Mindfulness Skills (KIMS). At level two, Rosenberg’s Self Esteem scale, the Self Compassion Scale and the Self Control Scale, at level three, Empathic concern and Perspective Taking from the Interpersonal Reactivity Index, and the Interpersonal competence scale. Any misspecifications of the structural model

should be related to the tested model rather than poor measurement models. CFA were performed with maximum likelihood estimation. Fit indices for each of the constructs within each level as described in the Methods chapter, are provided in Table 3.10.

Measurement models were respecified to improve fit where necessary through examination of modification indices. Where necessary, covariance between error terms was specified. This will not change the structure of the model but may capture some residual relationships between the variables theoretically linked under a common construct but not fully captured by the corresponding latent variable.

Examination of the indices of fit suggests that for the most part the scales selected to measure the constructs included in Franklin's model are adequate. The mindfulness scale does not afford a good fit when the subdomains are measured together however their fit is acceptable if the domains are measured separately, therefore the separate subscales are added to the model. The subscales of interpersonal competence are also entered separately in the model. The self control scale also affords a poor fit with the chi square statistic significant and the TLI, and CFI below the recommended levels.

Table 3.10 Modified measurement models

Scale	Chi sq (degrees of freedom) (p)	TLI	CFI	RMSEA
CEI	9.69 (8) (.287)	.991	.997	.025
State Hope	13.30(7) (.065)	.983	.994	.052
Psychological Flexibility	123.37 (82) (.002)	.939	.963	.039
Mindfulness	1151.54 (641) (.000)	.883	.904	.049
Accept	28.80 (19 ) (.069)	.984	.993	.040
Aware action	35.56 (24) (.06)	.968	.986	.038
Describe	33.25 (15) (.004)	.965	.986	.061
Observe	82.03 (40) (.000 )	.926	.962	.057
Self esteem	43.15 (26) (.019 )	.983	.990	.045
Self compassion	395.36 ( 254 ) (.000)	.963	.973	.041
Self control	1118.75 (557 ) (.000)	.808	.839	.056
Empathy	132.399 (62 ) (.000 )	.920	.953	.059
Empathic concern	9.97 (10) (.443)	1.00	1.00	.00
Perspective taking	12.55 (9) (.184)	.985	.995	.035
Initiation	13.29 (12) (.348)	.997	.999	.018
Negative assertion	18.388 (14) (.190)	.992	.997	.031
Emotional support	15.320 (12) (.224)	.993	.998	.029
Disclosure	9.384 (15) (.857)	1.01	1.00	.000
Conflict management	15.698 (13) (.266)	.991	.997	.025
Interpersonal competence	Not admissible	.937	.949	.042

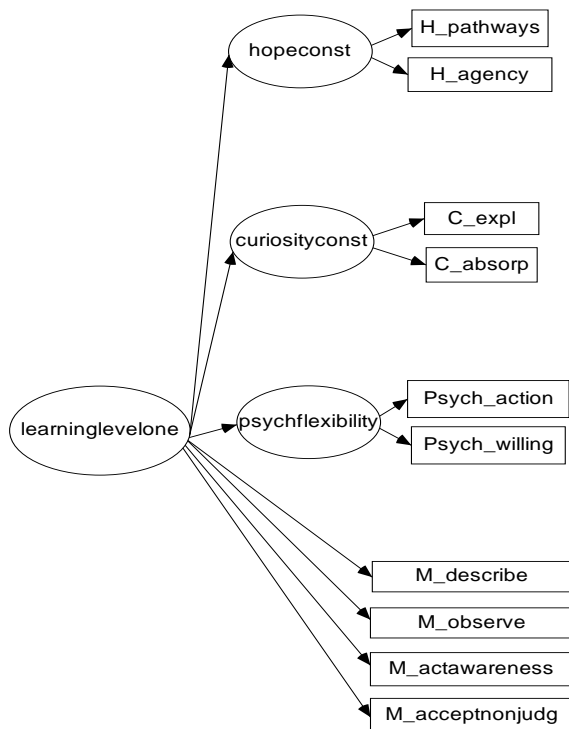
### 3.7 Structural Models

The final step in testing Franklin's model is to assess the structural model at each level of the hierarchy before combining and testing the overall model.

#### 3.7.1 Structural Model of Level One (Adaptive learning)

At the base level of Franklin's hierarchy, four underlying latent variables, hope, curiosity, psychological flexibility and mindfulness are hypothesised to load onto the

underlying latent variable, Adaptive learning. As identified through measurement modelling, the mindfulness subscales do not load onto an underlying latent construct, mindfulness, so the subscales are entered separately into the model. The structural model specification is provided in Figure 3.3 and Table 3.11 presents the details of path coefficients. One of the paths emitted from the latent variable was set to 1, hope, in order to scale the latent construct.



*Fig 3 3 Adaptive learning*

The solution for the original model was inadmissible revealing goodness-of fit indices CFI=.766, TLI=.622, RMSEA=.151 and  $\chi^2 = 286.7$  (34 degrees of freedom). After respecification, as outlined in Fig 3.4, by taking into account theoretical dimensions of each construct and modification indices, a review of the goodness-of-fit indices revealed a model with a good fit with CFI= .991, TLI= .968 , RMSEA= .044, a  $\chi^2 = 25.99$  (16 degrees of freedom,  $p=.054$ ), however again, the solution was inadmissible. The covariance matrix was not positive definite. The coefficients of this model are outlined in Table 3.12.

Table 3.11 Coefficients for the SEM pathway for the Adaptive Learning Level

Pathway		Path coeff	Std Error.	C.R.	p value	Standardised coefficient
hopeconst	<--- Adaptive_learning	1.000				.882
curiosityconst	<--- Adaptive_learning	.655	.082	8.019	<.001	.299
psychflexibility	<--- Adaptive_learning	1.783	.175	10.211	<.001	.888
Psych_action	<--- psychflexibility	1.000				.847
Psych_willing	<--- psychflexibility	.723	.072	10.026	<.001	.627
C_expl	<--- curiosityconst	1.000				1.744
C_absorp	<--- curiosityconst	.081	.117	.693	.488	.164
H_pathways	<--- hopeconst	1.000				.852
H_agency	<--- hopeconst	1.175	.077	15.266	<.0001	.849
M_describe	<--- Adaptive_learning	1.063	.129	8.249	<.001	.543
M_observe	<--- Adaptive_learning	.221	.169	1.309	.191	.089
M_actawareness	<--- Adaptive_learning	.695	.115	6.027	<.001	.378
M_acceptnonjudg	<--- Adaptive_learning	.956	.158	6.048	<.001	.411

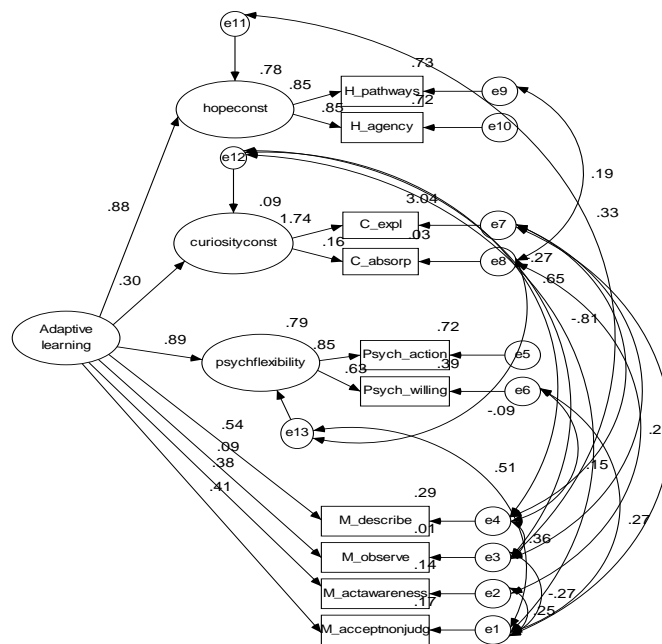


Fig 3 4 Modified Adaptive learning model

Examination of the correlations between the constructs suggested that the negative correlations between Absorption and subscales of mindfulness and psychological flexibility may affect the admissibility of the solution. Removal of the Absorption subscale of curiosity may improve the fit. The model was adjusted and is provided in



Fig. 3.5. The goodness-of-fit indices reveal a model with a better fit to the data with CFI= .993, TLI= .979, RMSEA= .038, a  $\chi^2 = 23.624$  (16 degrees of freedom,  $p=.098$ ).

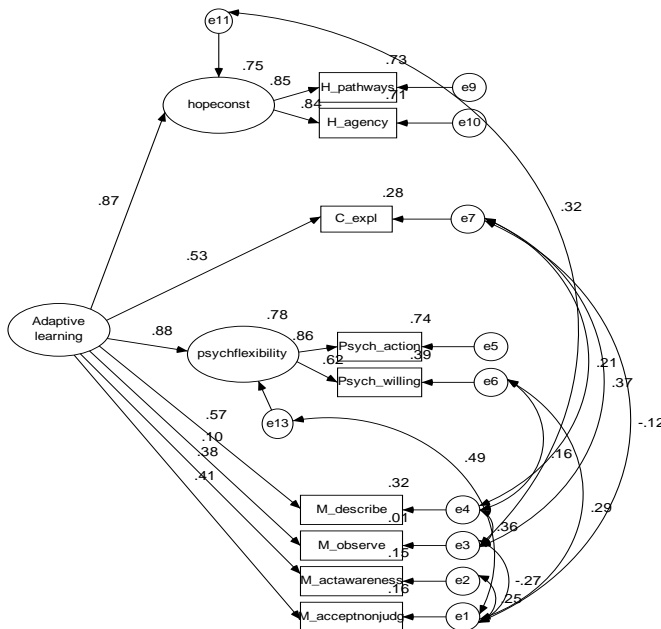


Fig 3 5 Modified adaptive learning

Table 3.12 Coefficients for the SEM pathway for the Adjusted Adaptive Learning Level

Pathway		Path coeff	Std Error.	C.R.	p value	Standardised coefficient
hopeconst	<--- Adaptive_learning	1.000				.867
psychflexibility	<--- Adaptive_learning	1.122	.128	8.755	<.001	.882
Psych_action	<--- psychflexibility	1.414	.145	9.778	<.001	.861
Psych_willing	<--- psychflexibility	1.000				.621
H_pathways	<--- hopeconst	.866	.055	15.673	<.001	.855
H_agency	<--- hopeconst	1.000				.842
M_describe	<--- Adaptive_learning	1.000				.569
M_observe	<--- Adaptive_learning	.221	.143	1.543	.123	.101
M_actawareness	<--- Adaptive_learning	.619	.099	6.257	<.001	.381
M_acceptnonjudg	<--- Adaptive_learning	.834	.136	6.148	<.001	.405
C_expl	<--- Adaptive_learning	.589	.064	9.265	<.001	.530

### 3.7.2 Structural Model of Personal Skills

To provide a better fit for the data, the model for level two also required respecification. The original and respecified models are displayed in Figures 3.6 and 3.7. The original goodness-of-fit indices were CFI= .867, TLI= .748, RMSEA= .202,

a  $\chi^2 = 273.29$  (19 degrees of freedom,  $p < 0.0005$ ). After respecification, a review of the goodness-of-fit indices revealed a model that is approaching an adequate fit: CFI= .989, TLI= .957, RMSEA= .083, a  $\chi^2 = 29.35$  (9 degrees of freedom,  $p = .001$ ). Although the statistically significant Chi Square, may indicate sensitivity to sample size, the RMSEA at  $>.08$  is also indicative of a poor fit, however, the CFI and TLI fall above the minimum cutoff of .95. There appears to be some merit to the overall model but more adjustment is required to better fit the data. Details of path coefficients are presented in Table 3.13

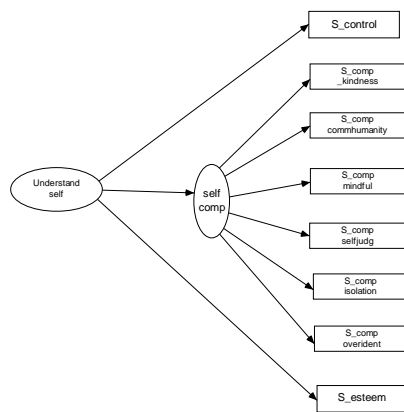


Fig 3 6 Personal Skills (Understanding self)

Table 3.13. Coefficients for the SEM pathway for the Personal Skills Level

Pathway	Path coeff	Std Error	p value	Standardised coefficient
self comp ← Understanding self	.051	.005	<.0001	.902
Self control← Understanding self	17.169	1.455	<.0001	.656
Self esteem← Understanding self	.435	.035	<.0001	.842
SC kindness←comp	.881	.051	<.0001	.834
SC commhumanity←comp	.733	.061	<.0001	.590
SC mindful←comp	.868	.054	<.0001	.802
SC selfjudg←comp	1.227	.062	<.0001	.909
SC isolation←comp	1.280	.079	<.0001	.912
SC overidentification←comp	1.136	.066	<.0001	.819

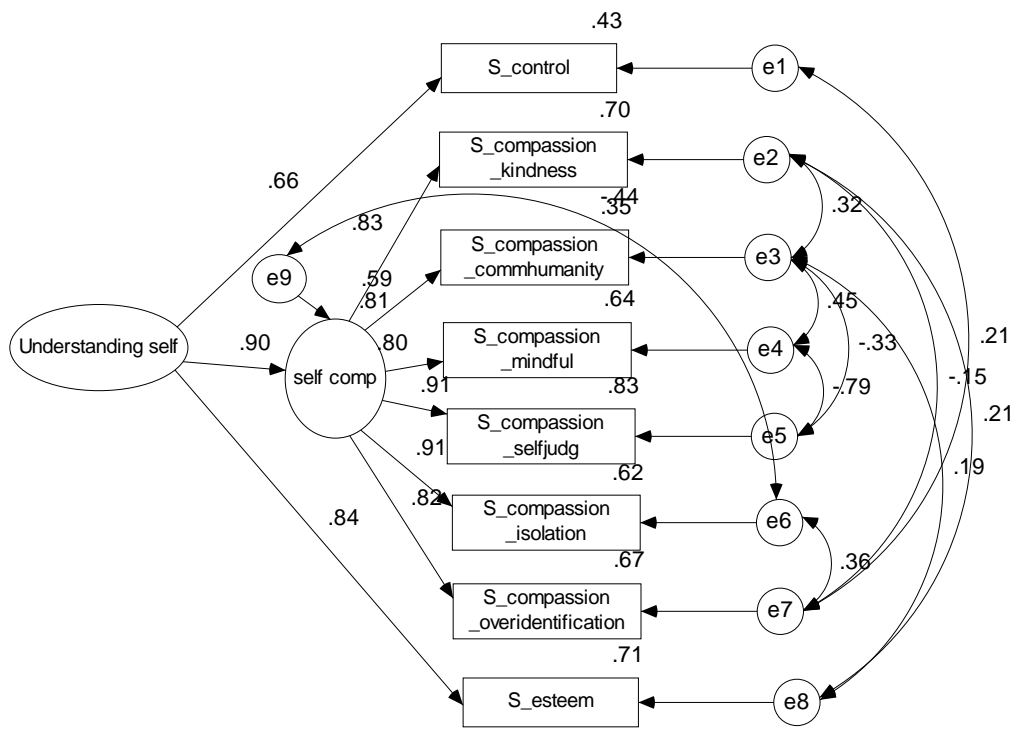


Fig 3 7 Structural model for Level Two, Personal Skills

### 3.7.3 Structural Model of People Skills Level Three

The goodness-of-fit indices for the model as proposed demonstrated a poor fit with CFI=.811, TLI=.622, RMSEA=.195 and a  $\chi^2 = 188.199$  (14 degrees of freedom,  $p < 0.0005$ ). Once the model was modified the goodness-of-fit indices revealed a model approaching an acceptable fit with CFI= .988, TLI= .944, RMSEA= .075, a  $\chi^2 = 12.61$  (5 degrees of freedom,  $p = .027$ ). Again, the model required respecification, and only CFI indicated a good fit. Structural models are presented in Figures 3.8 and 3.9. Details of path coefficients for the modified model are presented in Table 3.14.

Table 3.14 Coefficients for the SEM pathway for the People Skills Level Three

Pathway			Path coeff	Std Error	CR	p value	Standardised coefficient
empath	<---	Understanding_others	1.000				.734
Emp_concern	<---	empath	1.000				.839
Persp_taking	<---	empath	.769	.083	9.287	***	.615
I_conflictmanag	<---	Understanding_others	1.000				.571
I_initiation	<---	Understanding_others	1.399	.153	9.146	***	.593
I_negassert	<---	Understanding_others	1.518	.179	8.487	***	.680
I_disclosure	<---	Understanding_others	1.593	.133	12.017	***	.722
I_emotsupport	<---	Understanding_others	1.541	.117	13.155	***	.850

\*\*\*  $p < .001$



as measured here load onto the latent variable, adaptive learning. At the adaptive learning level, the model required adjustment with the removal of one subscale, Absorption, before the model provided a good fit to the data.

Self compassion, self control and self esteem failed to load onto the Personal Skills level satisfactorily; and empathic concern, perspective taking and interpersonal competence as measured also failed to load satisfactorily onto the People Skills level of Franklin's model.

### **3.8 Hierarchical structural modelling**

**Hypothesis Six.** Although at each individual level of the model: Adaptive learning, Personal skills and People skills, some fit indices suggested a model approaching a good fit, overall the measures failed to load satisfactorily on to the levels without requiring some adjustments to attain a good fit. Franklin's model, as conceptualised, has therefore not been supported at the steps prior to testing the model hierarchically. It is a mathematically complex model and it is not advisable to move to the next step without solid support in the preliminary measurement and structural phases. As Kline (2005) points out, simple structural models may have many equivalent versions and imposing empirically-driven rather than theoretically- driven specifications to improve fit may not provide a true model. Furthermore, retesting a model that has been respecified according to modifications suggested by the data is likely to be a circular process. Therefore testing the model further using the structural models outlined at each level to determine whether the model is hierarchical in nature is inappropriate.

### 3.9 Multiple Regression Analyses

There are two separate purposes to the regression analyses. Firstly, a complex meta-model, such as Franklin's, cannot be fully and robustly evaluated by any one statistical modality and as discussed previously in section 3.8, the hierarchical nature of Franklin's model could not be fully evaluated using SEM. Regression analyses provide another means whereby we can test whether a specific aspect of Franklin's model is supported, that being its hierarchical structure. This method can provide evidence of the relevance of the hierarchical structure of the model by utilising a series of analyses that not only explore the incremental value of each level but also compare models with and without the preservation of the hierarchical structure.

The regression analyses will be reported in four parts:

- Regression model with hierarchy preserved, all variables at each level included: 3.9.1 examines the incremental contribution of all variables within each level; adaptive learning, personal and people skills towards each outcome after age, gender and life events have been accounted for.
- Regression models with hierarchy preserved including only significant contributing variables at each level: 3.9.2 preserves the hierarchical level of Franklin's model but utilises the method proposed by Sheldon and Hoon (2007) whereby firstly through backward stepwise regression the variables within each level that offer a unique contribution to wellbeing and distress are determined and then only those variables are included in the final regression analysis to determine their overall unique contribution to wellbeing and distress.
- Regression models ignoring hierarchy: 3.9.3 reports the unique contribution of the variables to wellbeing and distress when all variables are entered into

the regression analysis using stepwise selection without the structure of the model imposed

- Comparison of the three analyses: 3.9.4 compares the three methods above in terms of which variables are included in the model according to these three methods and thus examines any differences that arise between these methods in the variables that uniquely contribute to wellbeing and distress. If the variables selected in 3.9.1 and 3.9.2 differ from those selected in 3.9.3 this would suggest the hierarchy serves some purpose. If the variables selected across these approaches are substantively the same that would suggest the hierarchy is irrelevant. Hence this analysis provides some evidence for the value of the hierarchical nature that Franklin proposes.

.The second purpose of the regression analyses is to examine the unique contribution of individual variables when tested in the presence of a range of competing predictive variables, thus contributing to the process of prioritising different constructs in personality and positive psychology.

### **3.9.1 Incremental Value of Adaptive learning, Personal Skills and People Skills in Predicting Psychological Distress and Wellbeing**

Seven sets of hierarchical regression analyses, one per outcome measure, were conducted to investigate the relative importance of each level of Franklin's model in predicting psychological wellbeing and distress. Analyses were conducted separately for each outcome. At Step one, gender, age and life events were entered. At step two, variables at the adaptive learning level were entered: all subscales of hope, psychological flexibility, curiosity and four mindfulness subscales. At step three personal skills variables – self esteem, self control and self compassion were entered, and at step four people skills variables – empathic concern, perspective taking and interpersonal competence subscales were entered. Results are reported

in Table 3.15. Individual beta scores for significant variables for each outcome are provided in the Appendix B.

Table 3.15 Hierarchical Regressions: Variance accounted for at each step

Outcome	Step	R <sup>2</sup>	Δ R <sup>2</sup>	p	p F Δ
<b>Resilience</b>	1	.04	.04	.009	.009
	2	.57	.53	<0.0005	<0.0005
	3	.63	.06	<0.0005	<0.0005
	4	.68	.05	<0.0005	<0.0005
<b>Happiness</b>	1	.04	.04	.004	.004
	2	.50	.46	<0.0005	<0.0005
	3	.58	.08	<0.0005	<0.0005
	4	.59	.02	<0.0005	.155
<b>Relationship satisfaction</b>	1	.05	.05	.001	.001
	2	.32	.26	<0.0005	<0.0005
	3	.41	.10	<0.0005	.000
	4	.43	.02	<0.0005	.139
<b>Life satisfaction</b>	1	.04	.04	.005	.005
	2	.51	.47	<0.0005	<0.0005
	3	.56	.06	<0.0005	<0.0005
	4	.58	.01	<0.0005	.372
<b>Depression</b>	1	.10	.10	<0.0005	<0.0005
	2	.54	.44	<0.0005	<0.0005
	3	.62	.08	<0.0005	<0.0005
	4	.63	.01	<0.0005	.179
<b>Anxiety</b>	1	.11	.11	<0.0005	<0.0005
	2	.37	.26	<0.0005	<0.0005
	3	.42	.05	<0.0005	.002
	4	.45	.03	<0.0005	.031
<b>Stress</b>	1	.13	.13	<0.0005	<0.0005
	2	.44	.31	<0.0005	<0.0005
	3	.52	.08	<0.0005	<0.0005
	4	.53	.01	<0.0005	.462

Step 1: age, gender, life events; Step 2: hope, psychological flexibility, curiosity, mindfulness; Step 3: self esteem, self compassion, self control; Step 4: empathic concern, perspective taking, interpersonal competence; R<sup>2</sup> pertains to how much the variability of the outcome is accounted for by the predictors; Δ R<sup>2</sup> pertains to how much the variability of the outcome is accounted for by the variables included at that step, i.e. how much the addition of those variables improves the model; p reflects the significance of R<sup>2</sup>; p F Δ pertains to whether the change with the addition of the new variables is significant.



The first analysis examined the contribution of each level on resilience.

Gender, age and life events were entered at Step 1 and accounted for a significant but small amount of variance (4%) on resilience. Strengths at the adaptive learning level accounted for a further 53% of the variance, although only the Agency and Pathway components of hope, and the Action component of psychological flexibility was significant. The Personal skills level accounted for another significant but small amount of variance (6%) with Self esteem and the Isolation component of self compassion significant however the Pathways component of hope was no longer significant. The People skills levels also accounted for a small but significant amount of variance (5%) with the addition of the Initiation component of interpersonal competence as significant to the resilience outcome.

The outcome measured in the second analysis was happiness. Gender, age and life events entered at Step one accounted for 4% of the variance in happiness, whereas the adaptive learning level entered at step two accounted for 46% of the variance with only the Agency component of hope demonstrating a significant result. At step three, the Personal skills accounted for 8% of the variance. Agency remained significant and only self esteem and the Isolation and Self Judgement subscales of the Personal skills level demonstrating significance. At step four, the Disclosure subscale of interpersonal competence was included as significant and the People skills level demonstrated a 2% increase in variance of happiness. The change in variance was not significant.

For relationship satisfaction, gender, age and life events contributed 5 % of the variance and the Adaptive learning variables, (the significant variable was Agency) accounted for 26% of the variance. When the Personal skills variables were entered

into the model, a further 10% of the variance was accounted for with only the Isolation subscale demonstrating a significant result. After Step 4, with the inclusion of People skills variables into the model Disclosure was significant, another adaptive learning variable was significant, Acceptance, and there was only a 2% increase in variance with the change in variance not significant.

The next analysis examined the contribution of each level on life satisfaction.

Gender, age and life events accounted for a significant but small amount of variance (4%) on life satisfaction. Strengths at the adaptive learning level accounted for a further 47% of the variance, although only the Agency component of hope was significant. The Personal skills level accounted for another significant but small amount of variance (6%) with Self esteem and the Isolation component of self compassion significant. The People skills level only accounted for a non-significant 1% of variance with no further significant variables added to the overall model.

The first distress outcome measured was depression. Gender, age and life events entered at Step one accounted for 10% of the variance. The Adaptive learning level accounted for a further 44% of variance with Agency, the Action subscale of psychological flexibility and the Acceptance subscale of mindfulness significant. The Personal skills variables accounted for a further 8% of the variance. Self esteem and the Isolation subscale of self compassion was significant, however the Agency and Acceptance variables were no longer significant in the model. At Step 4, the People skills level again only accounted for 1% of the variance which was not a significant change. Disclosure was added to Action, self esteem and Isolation as significant.

Gender, age and life events accounted for 11% of the variance in anxiety. The Adaptive learning level accounted for a further 26% of the variance with Action demonstrating a significant result. The Personal skills contributed a further 5% of the variance, however self esteem and Overidentification were significant in the model and the Pathways component was also significant. The People skills level accounted for a significant 5% increase in variance with Perspective taking showing a significant result. Conflict management was also significant but not in the expected direction.

For stress, gender, age and life events accounted for 13% of the variance and the Adaptive learning level contributed a further 31% to the variance. Pathways, Action, Acceptance and the Absorption subscale of curiosity were significant. Acceptance and Absorption were no longer significant when the Personal skills variables were added. The Personal skills level accounted for a small amount of variance (8%) and the increase of 3% in variance when People skills were added to the model was not significant. The final significant variables were Pathways, self esteem and Overidentification.

**Summary:** Examination of the results of the hierarchical regression analysis demonstrates some support for the incremental validity of Franklin's model; however Personal skills and People skills only contributed a small amount of variance to psychological wellbeing and distress outcomes. The change in variance when People skills were added was statistically significant for resilience and anxiety but not for happiness, relationship and life satisfaction, depression and stress. Hence we would conclude that the data suggest partial support for the hierarchy of Franklin's model.

### **3.9.2 Backwards Stepwise Regression: Preserving the structure of Franklin's model**

This analysis was guided by Sheldon and Hoon's (2007) method, which allowed the structure of Franklin's model to be preserved. For each outcome, each level – Adaptive learning, Personal and People Skills was examined separately to determine the constructs at that level that offered unique variance.

Controlling for gender, age and life events, variables contributing unique variance to the wellbeing and distress outcomes at the Adaptive Learning, Personal and People Skills levels are reported in Tables 3.16 through 3.18 respectively.

At the adaptive learning level, variance in outcomes explained ranges from 55.8% for resilience, 29.9% for life satisfaction and 35% for anxiety. The results show that different skills contribute unique variance to different outcomes.

In the prediction of stress a notable factor is that the Absorption subscale of curiosity contributes unique variance such that increased levels of Absorption are related to increased levels of stress. Agency tends to have the strongest Beta weight, contributing most to the prediction of psychological wellbeing outcomes whereas Action has the strongest Beta weight for resilience and psychological distress outcomes.

Table 3.16 Standardized regression coefficients (Beta) for Variables at the Adaptive learning level explaining unique variance in Psychological Wellbeing and Distress Outcomes (controlling for gender, age and life events)

	Resilience	Happiness	Relationship satisfaction	Life satisfaction	Depression	Anxiety	Stress
<b>H Pathways</b> .143*							-.152**
<b>H Agency</b>	.319***	.562***	.500***	.626***	-.247***		
<b>PF Action</b>	.337***				-.350***	-.353***	-.265***
<b>PF Willingness</b>		.106*		.113*			
<b>Acceptance</b>		.116*			-.217***	-.202***	-.261***
<b>Observe</b>	.108**						
<b>C Absorp</b>							.142***
<b>% Variance explained</b>	55.8	49.7	29.9	50.7	52.8	35.0	42.1

When adaptive learning skills are not taken into account, Personal skills contribute unique variance to the outcomes ranging from a low of 31.6% for relationship satisfaction to a high of 58.1% of variance in depression. Self esteem contributes unique variance to all outcomes and, except for relationship satisfaction and stress, has the strongest beta weight. In the prediction of anxiety and stress, the Overidentification subscale of self compassion contributes unique variance however the Isolation subscale of self compassion contributes unique variance in the prediction of psychological wellbeing and depression. Overidentification contributes most to the prediction of stress and Isolation contributes most to relationship satisfaction. Self control also contributes unique variance to the prediction of depression.

Table 3.17 Standardized regression coefficients (Beta) for Variables at the Personal Skills level explaining unique variance in Psychological Wellbeing and Distress Outcomes (controlling for gender, age and life events)

	Resilience	Happiness	Relationship satisfaction	Life satisfaction	Depression	Anxiety	Stress
<b>Self esteem</b>	.420***	.389***	.192**	.365***	-.452***	-.368***	-.274***
<b>SC Mindful</b>	.187***			.136*			
<b>SC Isolation</b>	.211***	.337***	.384***	.198**	-.234***		
<b>SC Overidentification</b>						-.200**	-.409***
<b>Self control</b>					-.139**		
<b>% Variance explained</b>	52.8	45.9	31.6	40.2	58.1	36.0	47.9

\*p<.05 \*\*p<.01 \*\*\*p<.001

Examination of the People skills level shows that overall these variables contribute a smaller amount of variance, around 20% for all except Resilience. The People skills variables account for 40.9% of the variance in predicting resilience however the Initiation component of interpersonal competence has the largest Beta weight at .42.

Table 3.18 Standardized regression coefficients (Beta) for Variables at the People Skills level explaining unique variance in Psychological Wellbeing and Distress Outcomes (controlling for gender, age and life events)

	Resilience	Happiness	Relationship satisfaction	Life satisfaction	Depression	Anxiety	Stress
IC Initiation	.418***	.131*	.143*	.144*	-.139*		
IC Disclosure	.169**	.235**	.287***	.190**	-.197**	-.191***	
IC Emotisupport			-.157*				
IC Conf management							-.236***
Empathic concern	.161**						
Perspective taking		.123*	.122*	.150**	-.130*	-.129*	
% Variance explained	40.9	19.7	18.3	18.2	22.7	17.4	17.0

\*p<.05 \*\*p<.01 \*\*\*p<.001

Finally preserving the method suggested by Sheldon and Hoon (2007), whereby only the variables contributing unique significant variance within each level were entered together utilising a backwards stepwise regression approach. The differences between the two analytical techniques reported at this point – the hierarchical model and the technique preserving Sheldon and Hoon’s methods can be briefly outlined. Within the hierarchical model, all variables at adaptive learning, personal and people skills level remain at step 4 and continue to compete for variance. In the second analysis only significant variables at each level are entered into the model. The results of the latter analysis are presented in Table 3.19.

Table 3.19 Standardized regression coefficients (Beta) for Significant Variables at each level across Franklin's model explaining unique variance in Psychological Wellbeing and Distress Outcomes (controlling for gender, age and life events) preserving Sheldon and Hoon's method of entering only statistically significant variables at each level to the overall model

	Resilience	Happiness	Relationship satisfaction	Life satisfaction	Depression	Anxiety	Stress
<b>H Pathways</b>							-.119*
<b>H Agency</b>	.244***	.422***	.316***	.496***	-.113*		
<b>PF Action</b>	.170**				-.189***	-.248***	
<b>PF Willing</b>						-.134*	
<b>Acceptance</b>					-.107*		-.145**
<b>C Absorption.</b>							.109*
<b>Self esteem</b>	.236***	.168**		.173**	-.311***	-.303***	-.199**
<b>SC Isolation</b>	.107*	.283***	.319***	.170**	-.194**		
<b>SC Overidentification</b>							-.325***
<b>IC Initiation</b>	.268***						
<b>IC Disclosure</b>			.167**				
<b>IC Emotional support</b>			-.149**				
<b>Empathic concern</b>						.122*	
<b>% Variance explained</b>	65.1	55.0	38.8	53.1	59.3	35.2	48.0

\*p<.05 \*\*p<.01 \*\*\*p<.001

### 3.9.3 Models ignoring the hierarchy, all variables entered into the regression analysis using stepwise selection

The final regression analysis examines the unique contribution of the variables to the wellbeing and distress outcomes without imposing Franklin's structure,



that is, all variables at each level are entered into the model. Results are reported in Table 3.20

Table 3.20 Standardized regression Beta coefficients when all variables entered into model without Franklin's structure.

	Resilience	Happiness	Relationship satisfaction	Life satisfaction	Depression	Anxiety	Stress
H Pathways							-.151**
H Agency	.253***	.435***	.356***	.514***	-.104*		
PF Action	.165**				-.208***	-.201**	
PF Willingness						-.130*	
Acceptance	-.085*		-.162**	-.126*			-.118*
C Absorption							.094*
Self esteem	.239***	.201**		.188**	-.323***	-.232**	-.211**
Self control					-.101*		
SC Isolation	.124*	.325***	.385***	.197**	-.171**		
SC judgement		-.136*					
SC Overidentificat						-.127*	-.337***
Perspective taking						-.113*	
IC Initiation	.228***						.092*
IC Disclosure		.113*	.173**		-.095*		
IC Emotional support	.099*	-.129**	-.164**		.151**		
IC Conflict management						.152**	
% Variance explained	66.5	57.5	40.9	55.2	61.7	40.0	49.9

\*p<.05 \*\*p<.01 \*\*\*p<.001

### 3.9.4 Comparing the three analyses

Although there are minor differences between the two techniques when Franklin's structure is maintained and when it is not imposed on the analysis, the results are very similar which suggests that the importance of the hierarchy postulated by Franklin's model is not supported by the data or at least may have little practical role to play. Tables 3.21 and 3.22 present the significant variables for the outcomes across the three techniques.

Table 3.21 Comparing variables contributing unique variance to Psychological wellbeing across three techniques

	Resilience			Happiness			Relationship satisfaction			Life satisfaction		
	Hier	By level	No struct	Hier	By level	No struct	Hier	By level	No struct	Hier	By level	No struct
<b>H Pathways</b>												
H Agency	x	x	x	x	x	x	x	x	x	x	x	x
PF Action	x	x	x									
<b>PF Willingness</b>												
Acceptance			x				-x		-x	-x		-x
<b>C Absorption.</b>												
Self esteem	x	x	x	x	x	x				x	x	x
<b>Self control</b>												
SC Isolation	x	x	x	x	x	x	x	x	x	x	x	x
<b>SC Overidentification</b>												
SC judgement				-x		-x						
IC Initiation	x	x	x									
IC Disclosure				x		x	x	x	x			
<b>IC Emotional support</b>												
			x			-x		-x	-x			

Hier – significant variables at Step 4 of hierarchical multiple regression; By level – significant variables when Franklin's structure is maintained; No struct – all variables entered into model without structure imposed. (-) sign shows result is in direction opposite to that predicted.

**Summary:** The hierarchical regression analysis provides limited support for the incremental validity of Franklin's model; however similar variables are reported whether or not structure is imposed on the regression analysis casting doubt on the importance of the detailed hierarchical structure of the model. Overall Agency, Isolation and self esteem contribute significantly to psychological wellbeing and depression, whereas Action is important in buffering against depression and anxiety and in building resilience. Overidentification contributes to anxiety and stress.

Table 3.22 Comparing variables contributing unique variance to Psychological distress across three techniques

	Depression			Anxiety			Stress		
	Hierar	By level	No struct	Hierar	By level	No struct	Hierar	By level	No struct
<b>H Pathways</b>				x			x	x	x
<b>H Agency</b>		x	x						
<b>PF Action</b>	x	x	x	x	x	x			
<b>PF</b>					x	x			
<b>Willingness</b>									
<b>Acceptance</b>		x						x	x
<b>Observe</b>									
<b>C Absorption.</b>								-x	-x
<b>Self esteem</b>	x	x	x	x	x	x	x	x	x
<b>Self control</b>			x						
<b>SC</b>	x	x	x						
<b>Isolation</b>									
<b>SC</b>									
<b>Overident</b>				x	x	x	x	x	x
<b>IC Initiation</b>									-x
<b>IC Disclosure</b>	x		x						
<b>IC Emotional support</b>			-x						
<b>IC Conflict management</b>				-x					
<b>Empathic concern</b>					x				
<b>Perspective taking</b>				x		x			

Hier – significant variables at Step 4 of hierarchical multiple regression; By level – significant variables when Franklin's structure is maintained; No struct – all variables entered into model without structure imposed. (-) sign shows result is in direction opposite to that predicted.

## Chapter 4

### Discussion

The primary purpose of this study was to evaluate Franklin's meta-model of success. The model identifies personal characteristics or skills that promote psychological wellbeing and buffer against psychological distress. As a developmental model, it has a hierarchical structure with Goal motivated adaptive learning underpinning the Personal skills level which in turn underpins the People Skills level, with Work at the apex of the hierarchy. Evaluation of the model also enables us to explore the relative importance of those skills in determining psychological outcomes - the secondary purpose of this research - providing evidence for the most parsimonious number of variables predicting wellbeing and distress. This study is the first to test Franklin's (2006, 2009) model of success. It is also one of the first studies to specifically examine the role of positive psychology constructs - character strengths, positive emotions, and "newer" resources or skills promoted in Acceptance and Commitment Therapy (ACT), such as psychological flexibility and mindfulness - within an integrated model of success. Three domains of the general model were tested: Goal motivated adaptive learning; Personal Skills and People Skills. Within the first domain, Adaptive learning, four constructs, or skills, were considered. These were hope, mindfulness, psychological flexibility and curiosity. Within Personal Skills the constructs examined were self esteem, self control and self compassion. The third domain, People Skills, incorporated empathic concern, perspective taking and interpersonal competence. The psychological outcomes measured included: life satisfaction, resilience, happiness, relationship satisfaction, depression, anxiety and stress.

Testing was undertaken in stages. Firstly the appropriateness of the selected constructs for the model was examined. The next phase entailed testing the measurement models for each domain. As the testing of the structural models for the individual domains failed in part, the structural modelling of the overall model was not performed. The incremental validity of the model which examined the hierarchical structure of the model was tested via multiple regression; and finally, the unique contribution and relative importance of each construct, in the presence of the other constructs, to the outcomes of psychological wellbeing and distress was determined through regression analyses. A summary of the key findings is provided in Table 4.1

To further understand and shed light on these results, the findings of each hypothesis will be presented and discussed in detail. Hypotheses one through four answer the preliminary research questions that assess the suitability of the constructs for Franklin's model. Hypothesis five addresses the structural modelling at each domain. The final section answers the secondary purpose of the study and post hoc questions that have arisen from the findings. It examines the results of the regression analyses – the incremental predictive ability of each domain, the relevance of the hierarchy, and the unique and independent contribution of constructs within each domain and overall.

Table 4.1 Key Findings

Summary of Key Findings
<b>Primary Aim: Evaluating Franklin's model</b>
<ul style="list-style-type: none"> <li>• Most, but not all, constructs were positively associated with psychological wellbeing and buffered against distress</li> <li>• Limited support was found for constructs, as initially conceptualised, fitting naturally into the super-ordinate domains of Adaptive learning, Personal and People Skills.</li> <li>• Partial support was found for the incremental value of Franklin's model through hierarchical regression</li> <li>• Few differences were revealed through stepwise regression with and without preservation of the model structure suggesting the data does not support the importance of the postulated hierarchy.</li> <li>• Although Franklin's model has merit, some modifications in selection of constructs and in the nominated hierarchical structure may be necessary,</li> </ul>
<b>Secondary Aim: Determining the unique contribution and relative importance of the domains and each constructs</b>
<ul style="list-style-type: none"> <li>• The goal motivated adaptive learning domain contributed most to the prediction of psychological wellbeing outcomes and in buffering against psychological distress</li> <li>• Personal skills domain also contributed a small amount of significant variance to wellbeing and distress</li> <li>• The Agency component of hope, self esteem and the Isolation component of self compassion buffer depression and contribute most to psychological wellbeing</li> <li>• The Action component of psychological flexibility is important in building resilience and buffering against depression and anxiety</li> <li>• The Overidentification component of self compassion is a significant factor in buffering against anxiety and stress</li> </ul>

#### 4.1 Responses to preliminary questions

H1: The first hypothesis considered the relationship of the selected constructs within each domain with the outcomes of psychological wellbeing and distress, specifically predicting that the constructs would be associated with higher reported levels of psychological wellbeing and lower levels of psychological distress. Support was found for this hypothesis with results comparable to those reported in other studies (e.g. Neff et al, 2007; Tangney et al, 2004). Participants reporting higher levels of psychological flexibility, hope, three

domains of mindfulness – Describe, Acceptance, and Aware action, self compassion, self esteem, self control, interpersonal competence and perspective taking were also more likely to report greater levels of wellbeing and lower levels of depression, anxiety and stress. Relationships varied in strength for each outcome and predictor variable, with the Agency subscale of hope, self esteem and the Isolation subscale of self compassion showing the strongest relationships with psychological wellbeing measures; and Agency, the Action subscale of psychological flexibility, self esteem, self control and the Isolation, Overidentification and Self-judgement subscales of self compassion showing the strongest relationships with the psychological distress variables. A question that will be answered later is whether the strengths of the relationships may also override those constructs that show a weaker relationship offering unique contributions to wellbeing and distress and therefore be more important overall in prioritising strategies in therapy.

What is evident from these results is that some constructs were not related to the outcomes in the predicted direction, casting doubt on their utility in Franklin's model of wellbeing. There was no clear inverse relationship between wellbeing and distress which supports research arguing against this inverse relationship (Cacioppo et al, 2008; Folkman & Moskowitz, 2000; Huta & Hawley, 2008). This finding emphasises that effective therapy relies on promoting a range of skills. To promote resilience, psychological strengths that buffer distress and others that promote psychological wellbeing are required.



Those constructs which failed to demonstrate all or some of the predicted relationships included both subscales of curiosity, the Observe subscale of mindfulness, and Empathic concern. These findings raise some concern regarding whether they map onto the selected domains and the utility of these constructs within Franklin's model.

The first to be examined is the Curiosity scale. This scale is designed to measure two domains of curiosity. The Explore subscale is designed to assess the tendency to seek novel or challenging experiences whereas the Absorption subscale of curiosity measures flow-like engagement in activities. The Absorption subscale only demonstrated a significant and weak negative relationship with stress - counter to the predicted direction. One cautionary note is that the individual subscales of Curiosity demonstrated only adequate reliability with the Absorption scale, Cronbach  $\alpha$  .69; however this is unlikely to result in a relationship opposite to that predicted. An alternative possibility is that given the negative relationship with stress it may be that this "flow-like engagement" taps into ruminative or unproductive behaviours as well as positive engagement. As Franklin (2010, p7) proposes the "function of [the goal motivated adaptive learning] domain is to identify and assist in the development of those beliefs, behaviours and skills....which will enable people to achieve their [objectives]" through preparation, action and learning. Identification of goals and the motivation and belief that one can pursue goals is required before action can be undertaken. Arguably then flow-like engagement, although a quality that is associated with positive adaptive functioning, may not be required for the identification, motivation and action towards goals as specified

by goal motivated adaptive learning. It may not fully map onto the learning or attitudinal focus of the adaptive learning domain and thus not be useful in Franklin's model as the model defines it. Support for this proposition is provided by the better fit of the Adaptive learning structural model with Absorption subscale removed, see Fig 3.5. This empirical finding does not negate the value of flow-like engagement. Rather, it raises questions about the function it might play in psychological wellbeing. Given that Franklin's model offers a better fit without this construct, it may suggest that Franklin's model does not fully explain "success".

The Explore subscale of curiosity was positively associated with the wellbeing measures, however, of the distress measures it was only significantly related to depression. The results showed that lower scores of the Explore subscale were associated with higher depression scores, but were unrelated to anxiety and stress levels and were associated with decreased psychological wellbeing. A decrease in levels of curiosity may explain one of the effects of depression however the causal direction is unclear. Increased depression is associated with the tendency not to seek novel or challenging experiences. Social withdrawal often occurs in depression and problems can seem insurmountable. Problem solving is affected by decreased drive to find potential solutions to insurmountable problems. Lack of motivation and a decreased drive to seek out familiar *or* novel experiences is a mark of depression but may or may not be a mark of anxiety or stress (DSM-IV, APA, p349). In anxiety, the explore component of curiosity allows one to judge whether one can cope with novel experiences (Silvia, 2008). As Kashdan (2009) argues, curiosity also motivates

avoidance responses, a common, though not always healthy, way to avoid anxiety. This may explain the lack of a significant relationship between Explore and anxiety. Stress is characterized by over engagement with situations appraised as stressful and can lead to anxiety (Smith, Jaffe-Gill, Segal & Segal, 2008) so it may be that this over engagement is related to the search for ways to overcome stressful situations. The relationship then between Explore and anxiety and stress may potentially be positive and negative and thus balance out over a range of participants.

Examination of the Observe subscale of mindfulness reveals that it is weakly associated with resilience and has no relationship with other wellbeing and distress variables. That the Observe scale does not show the predicted relationship is not surprising given results reported after the commencement of this study (Baer, Smith, Hopkins, Krietemeyer & Toney, 2008). Observe did not fit a hierarchical structure of mindfulness like the other facets Describe, Aware action and Acceptance. Baer and colleagues suggested that individuals with no meditation experience might typically judge observed experience which can lead to distress. In measuring an Observing factor of mindfulness in adolescents, Ciarrochi and colleagues (2011) found that Observe did not predict changes in wellbeing (Ciarrochi, Kashdan, Leeson, Heaven & Jordan, 2011). Given the current findings then, Observe as measured here may not accurately describe the quality ascribed to Franklin's model. However, observation is a central feature of mindfulness and this quality of awareness is central to becoming aware of discrepancies between present and ideal state. Judgement is also central to change processes in determining whether present

state is less acceptable than a more desired state. It is a quality that is necessary to trigger the motivation to change. Therefore, although Observe is relevant to adaptability whether or not judgement is a factor, explaining the positive association with resilience, as conceptualised within this measure, it may lie outside the domain of Franklin's meta-model.

Higher levels of Empathic concern were associated with higher psychological wellbeing levels and lower levels of depression and stress but did not have a significant relationship with anxiety. The failure to find a significant relationship between Empathic concern and anxiety is not surprising given that an over-concern for others may lead to excessive worry which can be a feature of generalised anxiety but a genuine concern does not need to become excessive and may be valued. This finding does not detract from support for this skill overall in a model of wellbeing. With the focus on others, it is appropriate for Empathic concern to be relegated to the People Skills level in Franklin's (2006) model.

In summary, examining the first hypothesis exploring the relationship of the selected constructs within each domain to the psychological wellbeing and distress outcomes, the subscale least appropriate to a model of success is the Absorption subscale of curiosity in the Adaptive learning domain. This construct not only did not provide the predicted relationships with wellbeing and distress, but also revealed a better fit when it was removed from the Adaptive learning structural model. On the other hand, the other constructs and subscales, C Explore, Observe and Empathic concern show some relationship with

psychological wellbeing, and in the case of C Explore and Observe provide a good fit to the Adaptive Learning structural model, so still demonstrate some utility in Franklin's model of success. Therefore, on balance, the selection of constructs is supported by the results and the constructs are relevant to a meta-model of wellbeing and success. What is clear is conceptualising the development of wellbeing through adaptive learning as the foundation for personal skills and people skills impacts on the constructs selected (Link, 2002). The complexity of the meta-model is also evident which foreshadows the difficulties that arose in the structural equation modelling.

H2: The second hypothesis explored the relationship of the selected skills and strengths with culturally-determined indicators of success - employment, income and education - predicting that the higher the reported level of skills, the more likely the individual would be to be in full-time employment or studying, have a higher income, and have more years of education. According to Franklin's (2010, p4) model, success is "the evaluation of the extent to which one is meeting or has met their needs and expectations for contentment, connection, contribution and personal growth", with expectations regarding wealth and social status more "socially mediated" (p5). Therefore it is possible that skills within the model overall could show only a small positive association with employment, income and education, after all some individuals within the general community may not have expectations or needs regarding income, education or employment. For example, some participants that comprised the government-sponsored program in this study may prioritise mental health and have adjusted their expectations of education, employment and income.

Some constructs did show a consistent relationship with employment, income and education - hope, psychological flexibility, the Describe domain of mindfulness, self esteem, two subdomains of self compassion, Common humanity and Mindfulness, and the Emotional Support subdomain of interpersonal competence. Hope, psychological flexibility, self esteem and self compassion also showed the strongest association with the wellbeing and distress measures and this finding might suggest that these constructs are associated with “success” that is defined both personally and within the socio-cultural context.

Some skills or strengths, however, were associated with increased income and years of education, unrelated to employment, and included the Acceptance subdomain of mindfulness, self control and the Kindness subdomain of self compassion. The remaining subdomains of self compassion – Selfjudgement, Isolation and Overidentification were associated with increased income alone as was the People skills strength, Initiation of interpersonal competence. These factors associated with increased income are also associated with resilience and in buffering distress. Although personality and gender factors have been implicated in the relationship between wellbeing and income (Boyce & Wood, 2011), further inferences about these strengths, income and wellbeing cannot be made. The Explore subdomain of curiosity and Perspective taking were related to years of education. These two findings are not surprising given that the desire to seek novel and challenging situations is relevant to education

(Reio et al, 2006) and education is likely to support an individual's ability to analyse and acknowledge different points of view.

A number of subdomains showed no relationship with employment, income or years of education. These included the Absorption subscale of Curiosity, the Observe and Aware action subdomains of mindfulness, Empathic concern and the subdomains of interpersonal competence – Negative assertion, Disclosure, and Conflict management. Although caution must be observed, given Franklin's caveats about personal expectations and socially-mediated success, these findings associated with the Absorption subscale and the Observe subscale provide some further concern about how well they may map onto Franklin's (2006) model.

Also of interest was the examination of associations between age and gender with distress and wellbeing outcomes and with particular strengths at each level. Firstly there was no difference in the self-reported experience of psychological wellbeing and distress for men and women; however men and women demonstrated differing relationships with some strengths. One possible explanation for these results may lie within the coping research literature. Men and women cope in different ways indicating that even if levels of adjustment are the same different factors are important for achieving that successful adjustment for men and women (Asberg, Bowers, Renk & McKinney, 2008). Men and women are likely to manage stress differently with social support a significant factor for women with other coping behaviours such as risk taking as well as social support used by men (Asberg et al, 2008). In this study, women

were more likely to report higher levels of Empathic concern, Perspective taking and Emotional support at the People Skills level and higher scores on the self compassion subdomain of Common humanity. These skills would appear to be congruent with the tendency for women to seek social support and to use social support as a coping mechanism (Asberg et al 2008). On the other hand, men were more likely to report higher scores for the mindfulness subdomain of Aware action and the Overidentification subdomain of self compassion. Further research may offer some explanation for this finding.

Age effects were apparent with older participants more likely to report higher scores on resilience and greater satisfaction with their relationships, and less likely to report depression, anxiety and stress. In a model of success, skills may develop or change across an individual's life span (Robins & Trzesniewski, 2005) explaining age effects, In this study, older participants reported higher scores on the Action subscale of psychological flexibility and the subdomains of Aware action and Acceptance. At the Personal skills level, older participants reported higher levels of self esteem, self compassion and self control and at the People Skills level they reported higher levels of Empathic concern, Perspective Taking and Conflict Management.

Overall, these findings support the need for consideration of the effects of age and gender in any model of success, however if their effects are statistically controlled as they have been in the regression analyses they do not have any direct bearing on the evaluation of Franklin's model of wellbeing.



H3: Hypothesis Three examined the discriminant validity of the strengths and skills chosen for Franklin's (2006) model, specifically predicting that participants of the PSP/DEN programs, identified as having significant barriers to community engagement, would report lower levels of the constructs within each level of Franklin's model than other community members. Constructs within a meta-model of success should discriminate between those who demonstrate success by engagement in the community and those who do not. If constructs do not discriminate, three possible reasons may be considered. One is that the measurement details of the constructs may not map onto Franklin's model as intended, which is a practical difficulty in testing and applying a conceptual model. Alternatively, the model as specified may not discriminate between those who are successful and those who are not. Thirdly, an individual's perception of success may not equate with socially-determined measures of success and so community engagement may not be a priority or considered a mark of success, for example, for those who are battling significant mental illness. Notwithstanding these provisos, support was gained for the discriminant validity of some constructs. Participants from the PSP/DEN program who have been identified as having significant barriers to success within the community reported lower levels of hope, psychological flexibility, two subdomains of mindfulness – Describe and Acceptance, self esteem, self control, self compassion, empathic concern, perspective taking and two subdomains of interpersonal competence – Emotional support and Conflict management.

At the adaptive learning level, Psychological flexibility, hope, and Describe followed all hypothesised predictions whereas Acceptance followed all except

employment. This supports the view that these constructs could map onto the adaptive learning domain of Franklin's model as well as offering support for the model overall. Again, there has been no further support to include the Observe subdomain of mindfulness nor does curiosity discriminate those who successfully participate in the community from those who struggle.

Although the constructs selected for the Personal Skills level provide discriminant validity by being associated in the hypothesised directions with psychological wellbeing and distress, not all are associated with all culturally determined indicators of success. Self control and some subdomains of self compassion were not associated with all culturally determined indicators of success.

For the People Skills level, there is no consistency within the findings. The Emotional support domain of interpersonal competence (that is, the ability to provide support to others) demonstrated all predicted results for hypotheses one through three. All constructs except Empathic concern (which had no significant relationship with anxiety) showed the predicted relationship with psychological distress and wellbeing however only the Emotional support domain of interpersonal competence showed the predicted results with all culturally- determined indicators of success. Perspective taking was related to years of education and Initiation was related to income, however both empathic concern and perspective taking provided discriminant validity as did Emotional support and Conflict management.

In summary, the results of these three preliminary tests begin to provide evidence of the utility of some of these constructs in their association with psychological wellbeing and distress, culturally determined indicators of success and ability to discriminate between people who are less engaged in the community. As such, for the most part, these findings demonstrate the suitability of the selection of these constructs for a model of success that not only buffers against distress but promotes psychological wellbeing. Given the suitability of these constructs, the next step was to determine whether they might demonstrate a degree of overlap that might suggest they map onto higher order domains of Adaptive learning, Personal and People Skills.

H4 and H5: Hypotheses Four and Five examined the intercorrelations of the constructs selected within each level to determine whether there was support for the premise that they are overlapping and thus that they may map onto the appropriate domain of Franklin's model.

Hypothesis 4a specifically stated that the subscales of curiosity, psychological flexibility, mindfulness and hope are correlated and 5a stated that these same scales loaded onto the latent construct of goal motivated adaptive learning. Results provided further evidence to suggest that the Absorption subscale and the Observe domain of mindfulness may not map onto Franklin's model as conceptualised here. Most constructs show weak to moderate relationships however the Absorption subscale demonstrated a non-significant relationship with the Agency subscale of hope, psychological flexibility subscales, and the Describe subscale of mindfulness. It also revealed a weak negative relationship with the Acceptance subscale of mindfulness. This latter result suggests that

the more the individual reports the ability to become absorbed in an activity, the less likely they are to be accepting and the more likely they are to be reactive to that experience. Given that flow-like engagement occurs in response to a task that *is* judged to be engaging, this result is not surprising. The implication then is that Absorption measures an experience unrelated to adaptive learning and as such not appropriate to a developmental model of success. The Explore subscale of curiosity also showed a non-significant relationship with Acceptance. The Observe subscale of mindfulness showed a non-significant relationship with psychological flexibility and the Aware action subscale of mindfulness. Furthermore, it demonstrated a significant negative correlation with the Acceptance subscale. Baer et al (2004) also reported similar relationships between the Observe subscale and the remaining mindfulness subscales finding that participants who had meditation experience were less likely to be reactive to their experiences and more likely to report predicted relationships with all mindfulness subscales in contrast to participants without meditation experience.

Closer examination of the hypothesised structural models also provides further evidence to suggest that the Absorption subscale of Curiosity as measured here does not map onto the Adaptive learning level of Franklin's (2006) model but is inconclusive regarding the Observe component of mindfulness. The specific paths between Observe, and Absorption and Adaptive learning were not statistically significant in the original specification and Observe was not statistically significant in the modified model. However respecification of the model without the Observe scale resulted in a poorer fit than with Absorption

alone removed. Support for Observe to be retained in the model is provided by its positive association with resilience however since higher levels of Absorption were associated with higher levels of stress, Absorption appears to be inappropriate, as measured, for this model.

These findings offer some indication of why the Observe and Absorption constructs as measured here may not map onto Franklin's goal motivated adaptive learning level. The significant relationship between psychological flexibility, hope, Describe and Acceptance, however, shows that they share variance, offering further support for the inclusion of those constructs in a common domain in Franklin's model.

Hypothesis 4b states that the scales of self esteem, self control and the subscales of self compassion are correlated and H5b states that these scales load onto the Personal skills domain of Franklin's model. The findings supported H4b with all scales moderately to strongly correlated. At the structural level of Franklin's model, the model approached a good fit with two fit indices suggesting an adequate model. The strong correlation provides support for their inclusion in the Personal skills domain however although some indices suggested a good fit, the evidence across a range of indices did not support the proposal that these constructs together load onto the Personal skills domain. The correlation results do not offer any explanation for the failure of the model to show a good fit across a range of indices.

Hypothesis 4c states that the scales of Empathic concern, Perspective taking, and the five subscales of interpersonal competence are correlated. H5c states that these scales load onto the People skills domain of Franklin's model. The findings reveal weak to moderate correlations for all subscales. The Emotional Support subscale of interpersonal competence showed the strongest correlations with the other subscales measured at this level. Negative assertion showed weak correlations with Empathic concern and Perspective taking but moderate to strong correlations with the other interpersonal competence subscales.

At the structural level for People Skills, again although some indices suggested a good fit, the evidence across a range of indices did not support the model. There is no clear indication of why this may be the case. It may be that they reflect very distinct processes. An example may be that having the ability to show concern, offer emotional support and take someone else's perspective is a very different emotional awareness skill than being able to resolve conflict, initiate interaction with others and disclose to others. The latter skills arguably are more active whereas the former may be active or passive, suggesting that may not fall under one overarching domain of people skills.

Given the lack of clear support for each structural level of the model, Hypothesis 6, the test of the hierarchical structure of the model through SEM, was not performed. Although the data for this sample of participants did not support the hypothesized model, the general framework for his model has some merit given the pattern of correlations found and the evidence supporting the value of the constructs in their appropriateness to a model of success. Only

two subscales measured, Absorption and the Observe subdomain of mindfulness did not demonstrate consistent relationships with the psychological wellbeing and distress outcomes. However, psychological flexibility, hope, Describe, Acceptance, Aware action, self esteem, self control, self compassion, Perspective taking, Empathic concern and Interpersonal competence do perform consistently and thus would be acceptable constructs in a model of wellbeing.

Although the model could not be tested through SEM, an alternative hierarchical multiple regression approach was used to gain further insight into the merit of the basic structure of the model and to suggest possible refinement if the detail was not supported. This approach examined the incremental value of each level of the model and also compared the constructs in predicting outcomes with and without the structure of the model imposed. This approach yielded mixed results. Little support for the structure was found when looking for differences in the independently significant predictors of psychological wellbeing and distress outcomes whether the structure of Franklin's model was imposed or whether all constructs were entered at once without imposing structure as the results were very similar. However, there was some limited support for the incremental value of each level in predicting psychological wellbeing and distress measures. For the most part each level explained statistically significant additional variance above the lower levels. The goal motivated adaptive learning level was the major contributor to outcomes across all measures as predicted by Franklin's (2006) model. Franklin argues that adaptive learning skills are the foundation of other skills, and therefore should

be the greatest predictor for such general outcomes as happiness and life satisfaction. Although significant, Personal skills only contributed a small amount of variance to each outcome, and People skills was also only a small contributor, and then only a significant contributor to resilience and anxiety. From these results it is evident that the constructs at the Personal and People skills level play a more minor role in general psychological wellbeing outcomes and gender, age and number of life events experienced over the last year contributed more to psychological distress than did the buffering effect of Personal and People skills. Gender, age and life events were less relevant for psychological wellbeing outcomes.

Overall this approach offered only limited support for the validity of the structure of the model, however it did allow for exploration of the relative unique and independent contribution of each construct to psychological outcomes in the presence of other strengths. These results contribute to the process of prioritising different constructs in personality and positive psychology.

#### **4.2 Unique and Independent contribution of strengths to psychological wellbeing and distress**

Although there was no clear support for the structural distinction of each domain of the model, there was some support through intercorrelation that most of the constructs as selected could map onto the appropriate domain to which they were assigned. Two approaches were taken to determine the unique contribution to the outcomes in question. The first was in line with Sheldon and Hoon's (2007) approach and their notion that each level offers a unique



explanation or contribution towards wellbeing (although in this case, only a small contribution). Therefore firstly the independently significant predictors of each domain, Adaptive learning, Personal and People skills were determined. Then these predictors were entered into a regression model to determine the overall independent predictors of psychological wellbeing and distress outcomes. Secondly, all variables were entered regardless of their unique contribution in the presence of other constructs within their domain.

At the Adaptive learning level, not all constructs showed a significant influence in the presence of the other constructs, and it was again clear that there were some constructs more important in promoting wellbeing and others important in buffering distress. For example in the presence of hope, psychological flexibility and mindfulness, curiosity did not have a unique influence on any outcome, except as contributing to stress. The value of Curiosity to these particular outcomes has been subsumed by the other constructs. The Agency subscale of hope had the most influence on psychological wellbeing, resilience and depression but no influence on anxiety and stress. Those constructs at the Adaptive learning level that contributed the most to buffering distress included the Action component of psychological flexibility and the Acceptance component of mindfulness. PF Action was also the strongest contributor to resilience. These latter results extend support for the value of acceptance and commitment therapy in countering distress and promoting resilience (Dahl et al, 2004; Hayes, Luoma, Bond, Masuda & Lillis, 2006; Masuda et al 2010).

At the Personal skills level, again not all constructs showed a significant influence in the presence of the others. Self esteem was one of the greatest contributors to buffering distress and promoting wellbeing, whereas the Isolation component of self compassion (which reflects the understanding of our interconnectedness to others) was also a contributor to psychological wellbeing, resilience and buffering depression but not anxiety and stress. Apart from self esteem, the Overidentification component contributed strongly to anxiety and stress.

At the People skills level, in the presence of the various domains of interpersonal competence, empathic concern and perspective taking, a number offered small significant contributions, in particular, the Initiation and Disclosure components. The only construct contributing significantly to buffering distress was Conflict management; however this did not contribute to any other outcomes. Perspective taking contributed to all bar resilience and stress.

Most importantly, these results offer preliminary evidence that despite the value individually of these constructs in predicting wellbeing and distress, it may be possible to prioritize and focus in therapy on those skills that offer the greatest benefit to clients. Future studies are necessary to replicate these results. One important caveat is that mediational studies may show that some constructs may be important in the development of others. For example, mindfulness is considered one of the key aspects of psychological flexibility and is promoted in the development of psychological flexibility, and a curious and open attitude is an aspect of mindfulness (Bishop et al, 2004; Ciarrochi et al, 2011), yet when

all are considered together mindfulness and curiosity may not provide a unique contribution to wellbeing or distress given that their contribution is subsumed under psychological flexibility.

When all variables from all levels were entered into three regression analyses, that is, firstly preserving Franklin's structure of the model, secondly entering only significant variables at each level, and thirdly without the structure of the model, the most consistent results were that the Agency component of hope, self esteem, and the Isolation component of self compassion contributed significantly to psychological wellbeing and resilience. Specifically, Action and Initiation contributed to resilience also, and Disclosure contributed to happiness and relationship satisfaction. In buffering distress, the only construct contributing significant variance across depression, anxiety and stress was self esteem. The PF Action component buffered against depression and anxiety, Pathways buffered stress and Overidentification buffered against anxiety and stress. A further note is that some very minor but inconsistent differences were found between the three different analyses: preserving the structure of the model, entering only significant variables at each level, and without imposing the structure, for those constructs which offered an independently significant contribution. The inconsistency may be an artefact of the statistical analyses and so does not provide any conclusive information about the value of Franklin's model.

Given the multidimensional nature of the constructs, these findings begin to reveal the mechanisms that are most important to buffering distress and

promoting wellbeing and offer support for other studies. For example the Agency component of hope accounted for a large portion of the variance in subjective wellbeing in studies exploring the wellbeing of adolescents with and without cognitive disabilities (Bast, 2007, Shogren et al, 2006) and hope demonstrated the most predictive utility across a range of outcomes including academic achievement and wellbeing in a longitudinal study of adolescents (Ciarrochi, Heaven & Davies, 2007). Another study has demonstrated that self compassion more strongly predicted symptom severity in people experiencing mixed anxiety and depression than mindfulness (Van Dam, Sheppard, Forsyth, Earleywine, 2011). This latter finding demonstrates that although self compassion may require mindfulness, other attitudinal factors are required above mindfulness alone.

Two points become clear from these findings. Firstly in the presence of other constructs, there are some skills which contribute more to promoting wellbeing and buffering distress than others. Further research is necessary to determine whether this is because these constructs subsume the contribution of the others. Franklin's original model actually assumes that the higher order qualities build upon the lower order. Secondly, although some general conclusions can be made, with respect to specific outcomes different strengths are important. For instance, in buffering against stress, the H Pathways, Acceptance and SC overidentification as well as self esteem are important whereas in buffering anxiety the PF Action skill replaces H Pathways. In promoting relationship satisfaction, H Agency, SC Isolation and IC Disclosure are important (not self esteem) but in contributing to life satisfaction H Agency,

self esteem and SC Isolation are important, not IC Disclosure. Resilience appears to require strengths that are also important in buffering distress as well as promoting wellbeing, as would be expected from a skill that promotes flexible responses to either unusual or commonplace adversity (Neenan, 2009).

Given the nature of stress, depression, anxiety and resilience it is not surprising that these skills are important. For example, avoidance is a significant factor in anxiety, therefore being able to undertake action (PF action) even though feelings of anxiety occur will likely buffer the detrimental effects of anxiety. Models of anxiety (Clark & Wells, 1995) suggest that the probability and cost of a negative outcome are high and avoidance maintains that fear. Action allows the individual to learn that either the probability is low or that the cost is not as significant as feared, allowing anxiety to decrease.

### **4.3 Implications**

These results have important implications for the role of positive psychology, mindfulness and ACT constructs in a model of success. There is the potential to guide therapy or coaching in promoting wellbeing, building resilience and buffering against distress. As there was only limited support for the hierarchical structure of Franklin's model, the "toolkit approach" to therapy is an option; however the findings suggest that some skills could be prioritised. The skills most important in buffering general wellbeing and distress include hope, psychological flexibility, self compassion and self esteem. Certain aspects of interpersonal competence, specifically disclosure, initiation and conflict

management also have some contribution. Those constructs that did not offer a significant contribution in the presence of these other constructs included mindfulness, curiosity, self control, empathic concern and perspective taking, however skills such as mindfulness and curiosity may be essential to psychological flexibility and self compassion and are necessarily strengthened in techniques and exercises that build the latter.

The importance of mindfulness, curiosity, self control and empathy is not being minimised by these results, however these findings suggest that their role in promoting or developing superordinate constructs is a direction for future research. It may suggest further refinement of Franklin's model in understanding key skills that promote wellbeing or success. Vallerand and Lalande (2011) describe their model of motivation which incorporates horizontal as well as vertical processes. Modifying Franklin's model to include horizontal processes that reflect the underlying curiosity and mindfulness aspects of psychological flexibility and self compassion could be of interest. Further exploration into the regulatory processes of goal-directed activity through hope pathways may also give further insight into why the predictive utility of self control as measured here appeared to be subsumed by the other constructs.

The findings suggest some support for "core skills" that would not only promote wellbeing but also buffer distress. Providing individuals with a sense of agency, options to achieve their desired goals, a sense of self acceptance even in the presence of setbacks and mistakes, acceptance of thoughts and the ability to respond in a manner to achieve desired goals, rather than a negative reactivity

towards stressful or distressing events, would enable individuals to enjoy wellbeing and resilience.

This research offers further insight into the studied constructs looking at their relationship with the outcomes in question, for example, resilience. Resilience is about coping with life stress and it is clear that constructs that buffer distress would be as important as those that promote wellbeing. These findings may lend support to the notion of resilience as a multidimensional strength rather than a singular concept underpinning the ability to adapt to a variety of situations.

The search for a meta-model of success reflects the psychotherapeutic integration movement as defined by Saltzman and Norcross (1990). Three approaches of this movement include technical eclecticism, mirroring the toolkit approach to wellbeing; theoretical integration which attempts to synthesise various different theories into a superordinate model, mirroring Franklin (2006), Sheldon (2004), Antonovsky (1979) etc, and the common factors approach which emphasises core ingredients of effective therapies (Miller, Duncan & Hubble, 2004). Given the questions of evidence and utility of these attempts at integration (Miller et al 2004), can their experience guide us? Are their benefits to pursuing a meta-model of success? How does Franklin's model and the results of this study link to other models of optimal functioning? The results of this study offer an explanation, for example, of the skills required to achieve the generalised coping resources proposed by Antonovsky's (1979) model of psychological health. The skills of hope, psychological flexibility, self esteem and self compassion are associated with the ability to develop social support

and ego strength. Cognitive adaptation theory argues for a shift to self esteem and mastery through downward social comparison. The importance of self compassion, where individuals see their coping as no better or worse than others, can aid this social comparison in developing self acceptance while hope offers a way to achieve mastery. Hope has been identified as one of the four key processes in therapy (Hubble, Duncan and Miller, 1999). This study also demonstrated its importance in psychological wellbeing and in buffering distress. Franklin's model has guided these findings and therefore it shows merit and has been worthwhile in pursuit. The hierarchical approach offered by Sheldon and Hoon (2007) when used with Franklin's model may guide mediational studies as it allows us to determine independently significant variables within each level. As with the psychotherapeutic integration movement however, operationalising elements within the model continues to hinder the process and demonstrate the difficulties in conceptualising and testing any meta-model of success. It may also be that a single meta-model of success and wellbeing that takes into account gender, age and life stages, health and disability, and the subjective components of success is a mirage, in which case there is value in identifying a range of predictive strengths and skills that promote subjective wellbeing.

#### **4.4 Limitations**

Some limitations of the study should be considered when interpreting the results and they deserve attention in future research. Firstly, these results are limited to a moderate sized convenience sample of community members and



educational students primarily in two urban populations in NSW. The results may vary with a more random sample with diverse gender and ethnic compositions. Another factor that affected the sample size was the response rate. Given the large battery of measures used, some respondents reported taking considerable time to complete the survey and this is likely to have influenced the low response rate. It is likely that the overall sample was biased towards those who had a particular interest in resilience, possibly because of past negative experiences. That many respondents reported significant life changing events experienced in the past could offer support for this view. This naturally raises questions about the representativeness of the sample and caution must be taken in generalising the results across all populations.

A second limitation is the cross-sectional nature of the study which prevents any inference about causal relationships between the outcomes and the strengths. Future studies employing a longitudinal design can provide more assurance of any causal relationship between psychological strengths and psychological wellbeing and distress.

Arguably, another limitation of the present study is its reliance on self-report measures; however, true “success” is self-defined and can only be self-reported. Any study using self-report measures risks the danger of social desirability and other response biases. To minimise this risk participants were assured of their anonymity and assured there were no right or wrong answers. Further assurance that bias was minimised can be gained from Tangney and colleagues (2004) who used a number of the same measures controlling for

social desirability. Their research did not reveal a social desirability response. Although “objective” measures of success were used, such as employment status, income and years of education, given that success and wellbeing are self-defined, self-report measures were considered appropriate. Future studies could incorporate third party reports of happiness and distress to further triangulate wellbeing status.

One point that might be noted lies within the conceptualisation of Franklin’s model. There are inherent issues with any hierarchical stage model with the assumption that the lower stages must be met prior to moving to the next stage. This model has already been modified. The findings from this study offer a starting point for future refinement of the structure.

#### **4.5 Direction for Future research**

These findings need to be replicated to begin the cumulative evidence argued for by Sheldon and Hoon (2007) and to improve the generalizability of the findings. As noted, a further extension of the research is incorporating a longitudinal design. Longitudinal studies incorporating some of these constructs are in place for adolescents (Ciarrochi et al, 2011); however none to my knowledge is in process with all of these factors or with adults. Future studies should also explore the efficacy of targeting these mechanisms in promoting wellbeing and alleviating distress through intervention studies. Another vital direction is in mediational studies that examine the impact of these constructs on each other. Mediational studies may also suggest appropriate modifications to Franklin’s model.

It is clear that the constructs selected for this model were not exhaustive in scope. Future research could expand upon and revise Franklin's model.

Given the study's support for a group of "core skills", another direction for future research is to explore synergistic interactions like other higher order constructs, for example covitality and psychological capital (Luthans et al, 2007; Renshaw et al, in press)

#### **4.6 Strengths**

Notwithstanding the limitations of this study, by seeking to fill a gap in the literature it is one of the first to consider a range of positive psychology constructs in a theoretical model of success using multivariable models and structural equation analyses leading to a quantification of the integrational approach. Despite the moderate sample size a particular strength of the current study is in the diverse age and socioeconomic groups that were targeted.

Participant access to the study through written questionnaires and Internet data collection overcomes the limitations of Internet data collection alone and allowed access to a diverse sociodemographic population through general community sporting bodies, church groups, university students, the disadvantaged and other community members.

Although these are preliminary findings, they do suggest potential targets for treatment and as Sheldon and Hoon (2007) state they begin to add to the body of evidence that is prioritising potential targets for treatment.

Furthermore, by studying the distinct components of self compassion, mindfulness, hope, psychological flexibility and interpersonal competence a more nuanced approach to assessment has been made that examines more

closely the dimensions that are most related to psychological wellbeing and buffer against distress. This allows us to have a greater understanding of the mechanisms of action to drive a theoretical model of wellbeing that can be further targeted in future research.

#### **4.7 Conclusion**

The purpose of this study was to examine Franklin's meta-model of wellbeing which brings together disparate lines of research and continues the process of grounding the study of wellbeing within a strong theoretical framework.

Although this data offered only limited support for Franklin's model as conceptualised here, the selected constructs proposed by this meta-model of success provide further evidence towards prioritising skills that can be targeted to promote wellbeing, build resilience and buffer against distress. The findings demonstrate that positive psychology constructs share significant relationships yet are distinct and impact on wellbeing and distress in distinctive ways, possibly by different mechanisms and certainly by targeting different responses.

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## Appendix A

### **General Instructions.**

Thank you for participating in this study. Your answers are extremely valuable and may help determine what personal skills or strengths help people to lead happy lives, connected to their community. With that information, we can provide coaching to help people achieve what they desire. The study should take no more than 45 – 60 minutes.

To commence the study, please follow these steps:

1. Please ensure that your questionnaire package contains the following
  - An information letter
  - A questionnaire
  - A pre-addressed reply-paid envelope, for you to post back your results if you do not wish to leave it in the locked box.
2. Read the information form
3. Please complete all questions. When completing the questionnaire, please be as honest and accurate as you can, bearing in mind that your results are anonymous. Do not spend too much time thinking about each question, as the aim should be to record the first response that comes to mind. Try not to let your response to one statement influence your responses to other statements. There are no “correct” or “incorrect” answers. Please, answer all of the questions and fill in only one response for each item. If you have any questions regarding the study please contact Pauline Sampson at either:  
[pauline.sampson@students.mq.edu.au](mailto:pauline.sampson@students.mq.edu.au) or phone number 0410 944 623
4. To explore what life events impact on how we function, it would be helpful to complete the questionnaire again in 6 months and if possible in twelve months time. With completion of the second questionnaire, you will be automatically entered into a draw to win \$200. To become eligible, but to ensure your responses remain anonymous, please include a code below that will match this questionnaire with the second. One suggestion would be your mother’s maiden name and a three digit code, which might include the third letter of the month of your birthday and the date (day only) of your birthday.

Code: \_\_\_\_\_

Mother’s maiden name + 3 digit code

**This questionnaire is designed to find out what factors contribute most to successful relationships and a happy life and which personal factors buffer against stressful life events. This is not a test, and there are no right or wrong answers. Try to answer honestly what you think. Your answers will not be seen by anyone except the researchers from Macquarie University. To answer each question please completely colour in the circle under the number (or description) to indicate your answer using only BLUE OR BLACK PEN. Please only fill in one circle for each statement. If you make a mistake, simply place a cross through the incorrect answer, DO NOT USE LIQUID PAPER.**

**a) Gender:**        ☐      **Male**  
                         ☐      **Female**

**b) Age in years:** \_\_\_\_\_

**c) Marital status:**

- ☐      **Never married**
- ☐      **Married**
- ☐      **Divorced**
- ☐      **Re-married**
- ☐      **Widowed**
- ☐      **Separated but not divorced**
- ☐      **De facto**
- ☐      **Other (please write) \_\_\_\_\_**

**d) How many children do you have?** \_\_\_\_\_ **Age(s)** \_\_\_\_\_

**e) In what country were you born** \_\_\_\_\_

**f) If you were born overseas, how long have you lived in Australia?** \_\_\_\_\_



**g) Occupation**\_\_\_\_\_

- ☐ Currently Employed
- ☐ Full time
- ☐ Part time/Casual
- ☐ Studying
- ☐ Unemployed
- ☐ Retired
- ☐ Not working by choice
- ☐ Participant in Personal Support Programme
- ☐ Other (please write)

**h) Combined family income**

- ☐ Less than \$15,000
- ☐ \$16,000 – 30,000
- ☐ \$31,000 – 45,000
- ☐ \$46,000 – 60,000
- ☐ \$61,000 – 80,000
- ☐ \$81,000 – 100,000
- ☐ greater than \$100,00

**i) Education**

- ☐ Some high school
- ☐ Year 10
- ☐ Year 12
- ☐ TAFE
- ☐ University undergraduate
- ☐ Postgraduate
- ☐ Other (please write)\_\_\_\_\_

**i) Community participation**

- ☐ Volunteer
- ☐ Team sport
- ☐ Member of community organization
- ☐ Church
- ☐ Other \_\_\_\_\_

**Have you or someone you know experienced physical or emotional problems in the past that have had an impact on how *you* interact with others?**

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**To understand what personal events have been stressful or have had a major impact on how you feel or manage day to day, please colour the circle beside any of the following events that you have experienced in your life over the past 6 months**

- |  |                       |   |
|--|-----------------------|---|
| Major change in behaviour or health of a family member                 | <input type="radio"/> |   |
| Major change in social activities (eg clubs, dancing, movies)          | <input type="radio"/> |   |
| Major business readjustment (merger, reorganization)                   | <input type="radio"/> |   |
| Major change in financial state (worse off, better off)                | <input type="radio"/> |   |
| Major change in church/ spiritual activities (lot more, lot less)      | <input type="radio"/> |   |
| Death of a close family member (sibling or parent)                     | <input type="radio"/> |   |
| Major change in number of family get togethers (lot more, lot less)    | <input type="radio"/> |   |
| Major change in living conditions (renovations, new house)             | <input type="radio"/> |   |
| Major change in responsibility at work (promotion, demotion, transfer) | <input type="radio"/> |   |
| Revision of personal habits (dress, manners, association)              | <input type="radio"/> |   |
| Minor violations of the law (traffic or parking infringement)          | <input type="radio"/> |   |
| Gaining a new family member (birth, adoption)                          | <input type="radio"/> |   |
| Partner beginning or ceasing work outside of home                      | <input type="radio"/> |   |
| Major change in usual type and/or amount of recreation                 | <input type="radio"/> |   |
| Major change in eating habits (lot more, lot less)                     | <input type="radio"/> |   |
| Taking on a small loan (purchasing car, appliance eg television)       | <input type="radio"/> |   |
| Major change in sleeping habits (lot more, lot less)                   | <input type="radio"/> |   |
| Death of a spouse  | <input type="radio"/> | Beginning or ceasing formal schooling <input type="radio"/> |
| Change in residence  | <input type="radio"/> | Troubles with boss <input type="radio"/>                    |
| Chronic illness  | <input type="radio"/> | Divorce <input type="radio"/>                               |
| Marital separation   | <input type="radio"/> | Detention in jail <input type="radio"/>                     |

Changing to a new school                      ○  
Marital reconciliation                      ○  
Being fired from work                      ○  
Retirement                      ○  
Sexual difficulties                      ○  
Christmas                      ○  
Foreclosure on a mortgage or loan                      ○  
Son or daughter leaving home                      ○

In law troubles                      ○  
Death of a close friend                      ○  
Pregnancy of spouse/partner                      ○  
Holiday/vacation                      ○  
Taking on a significant mortgage (to you)○  
Changing to a different type of work                      ○  
Major personal injury or illness                      ○  
Outstanding personal achievement                      ○

Please include any other events in the last 6 months which you feel have had a significant impact on how you feel, how you see yourself and how you manage day to day

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**Colour the circle most true for you at present using the scale below.**

1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree; 4 = Neither agree nor disagree; 5 = slightly agree; 6 = agree  
Strongly agree

7 =

	Strongly disagree			Neither			Strongly agree
	1	2	3	4	5	6	7
In most ways my life is close to my ideal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The conditions of my life are excellent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
So far I have gotten the important things I want in life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I could live my life over, I would change almost nothing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider myself happy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am happy with my relationships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Read each item carefully. Using the scale shown below, please select the number that best describes how you think about yourself right now and colour the appropriate circle for each sentence. Please take a few moments to focus on yourself and what is going on in your life at this moment. Once you have this here and now set, go ahead and answer each item according to the following scale**

*1 = Definitely false; 2 = Mostly false; 3 = Somewhat false; 4 = Slightly false; 5 = Slightly true, 6 = Somewhat true; 7 = Mostly true; 8 = Definitely true*

	<i>Definitely false</i>					<i>Definitely true</i>			
	1	2	3	4	5	6	7	8	
If I should find myself in a jam, I could think of many ways to get out of it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
At the present time I am energetically pursuing my goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
There are lots of ways around any problem that I am facing now	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Right now I see myself as being pretty successful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I can think of many ways to reach my current goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
At this time I am meeting the goals I have set for myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

**Please rate each of the following statements using the scale below by colouring in the circle in the appropriate column.**

*1 Never or very rarely true, 2 = Rarely true; 3 = Sometimes true; 4 = Often true; 5 = Very often or always true*

	<i>Never true</i>			<i>Always true</i>	
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
I notice changes in my body, such as whether my breathing slows down or speeds up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm good at finding words to describe my feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I do things, my mind wanders off and I'm easily distracted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I criticize myself for having irrational or inappropriate emotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I pay attention to whether my muscles are tense or relaxed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can easily put my beliefs, opinions, and expectations into words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm doing something, I'm only focused on what I'm doing, nothing else	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to evaluate whether my perceptions are right or wrong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm walking, I deliberately notice the sensations of my body moving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm good at thinking of words to express my perceptions, such as how things taste, smell, or sound	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I drive on "automatic pilot" without paying attention to what I'm doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tell myself that I shouldn't be feeling the way I'm feeling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Never true</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Always true</i> <b>5</b>
When I take a shower or a bath, I stay alert to the sensations of water on my body	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's hard for me to find the words to describe what I'm thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm reading, I focus all my attention on what I'm reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe some of my thoughts are abnormal or bad and I shouldn't think that way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I notice how foods and drinks affect my thoughts, bodily sensations, and emotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have trouble thinking of the right words to express how I feel about things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I do things, I get totally wrapped up in them and don't think about anything else	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I make judgements about whether my thoughts are good or bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I pay attention to sensations, such as the wind in my hair or sun on my face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



	<i>Never true</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Always true</i> <b>5</b>
I tend to make judgements about how worthwhile or worthless my experiences are	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Even when I'm feeling terribly upset, I can find a way to put it into , words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm doing chores, such as cleaning or laundry, I tend to daydream or think of other things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tell myself that I shouldn't be thinking the way I'm thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I notice the smells and aromas of things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I intentionally stay aware of my feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to do several things at once rather than focusing on one thing at, a time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think some of my emotions are bad or inappropriate and I shouldn't feel them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I notice visual elements in art or nature, such as colours, shapes, textures, or patterns of light and shadow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My natural tendency is to put my experiences into words ,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Never true</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Always true</i> <b>5</b>
When I'm working on something, part of my mind is occupied with other topics, such as what I'll be doing later, or things I'd rather be doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I disapprove of myself when I have irrational ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I pay attention to how my emotions affect my thoughts and behaviour ,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get completely absorbed in what I'm doing, so that all my attention is focused on it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I notice when my moods begin to change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Below you will find a list of statements. Please rate the truth of each statement as it applies to you. Use the following scale to make your choice**

*1 = never true; 2 = very seldom; 3 = seldom true; 4 = sometimes; 5 = frequently; 6 = almost always; 7 = always true*

	<i>never true</i> <b>1</b>	<b>2</b>	<b>3</b>	<i>some times</i> <b>4</b>	<b>5</b>	<b>6</b>	<i>always true</i> <b>7</b>
I am able to take action on a problem even if I am uncertain what is the right thing to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I feel depressed or anxious, I am unable to take care of my responsibilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to suppress thoughts and feelings that I don't like by just not thinking about them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>never true</i>			<i>some times</i>		<i>always true</i>	
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
It's OK to feel depressed or anxious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I rarely worry about getting my anxieties, worries, and feelings under control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In orderfor me to do something important, I have to have all my doubts worked out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm not afraid of my feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try hard to avoid feeling depressed or anxious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anxiety is bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Despite doubts, I feel as though I can set a course in my life and then stick to it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I could magically remove all the painful experiences I've had in my life, I would do so	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am in control of my life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I get bored with a task, I can still complete it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worries can get in the way of my success	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I should act according to my feelings at the time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I promised to do something, I'll do it, even if I later don't feel like it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>never true</i> <b>1</b>	<b>2</b>	<b>3</b>	<i>some times</i> <b>4</b>	<b>5</b>	<b>6</b>	<i>always true</i> <b>7</b>
I often catch myself daydreaming about things I've done and what I would do differently next time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I evaluate something negatively, I usually recognize that this is just a reaction, not an objective fact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I compare myself to other people, it seems that most of them are handling their lives better than I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is unnecessary for me to learn to control my feelings in order to handle my life well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A person who is really "together" should not struggle with things the way I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are not many activities that I stop doing when I am feeling depressed or anxious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Please indicate how strongly you agree or disagree with the statements listed below by colouring the circle in the appropriate column**

*1 = Strongly agree; 2 = Agree; 3 = Disagree; 4 = Strongly disagree*

	<i>Strongly Agree</i> <b>1</b>	<b>2</b>	<b>3</b>	<i>Strongly Disagree</i> <b>4</b>
On the whole, I am satisfied with myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times I think I am no good at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I have a number of good qualities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to do things as well as most other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I do not have much to be proud of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I certainly feel useless at times	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I am a person of worth, at least on an equal plane with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I could have more respect for myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All in all I am inclined to feel that I am a failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a positive attitude toward myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Please indicate how you typically act towards yourself in difficult times by colouring in the circle in the appropriate column.**

*1 Almost never, 2 = Infrequently; 3 = Neither frequently nor infrequently; 4 = Frequently; 5 = Almost always*

	<i>Almost never</i>				<i>Almost always</i>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
I'm disapproving and judgmental about my own flaws and inadequacies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm feeling down I tend to obsess and fixate on everything that's wrong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When things are going badly for me, I see the difficulties as part of life that everyone goes through	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to be loving towards myself when I'm feeling emotional pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I fail at something important to me I become consumed by feelings of inadequacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm down I remind myself that there are lots of other people in the world feeling like I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When times are really difficult, I tend to be tough on myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When something upsets me I try to keep my emotions in balance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm intolerant and impatient towards those aspects of my personality I don't like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1 Almost never, 2 = Infrequently; 3 = Neither frequently nor infrequently; 4 = Frequently; 5 = Almost always

	<i>Almost never</i>				<i>Almost always</i>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
When I'm going through a very hard time, I give myself the caring and tenderness I need	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm feeling down I tend to feel like most other people are probably happier than I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When something painful happens I try to take a balanced view of the situation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to see my failings as part of the human condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see aspects of myself that I don't like, I beat myself up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I fail at something important to me I try to keep things in perspective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm really struggling, I tend to feel like other people must be having an easier time of it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm kind to myself when I'm experiencing suffering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When something upsets me I get carried away with my feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can be a bit cold-hearted towards myself when I'm experiencing suffering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm feeling down I try to approach my feelings with curiosity and openness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm intolerant of my own flaws and inadequacies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Almost never</i>				<i>Almost always</i>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
When something painful happens I tend to blow the incident out of proportion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I fail at something important to me, I tend to feel alone in my failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to be understanding and patient towards those aspects of my personality I don't like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**Using the scale provided, please indicate how much each of the following statements reflects how you typically are:**  
*1 = Not at all to 5 = Very Much*

	<i>Not at all</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Very Much</i> <b>5</b>
I am good at resisting temptation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a hard time breaking bad habits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am lazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I say inappropriate things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I never allow myself to lose control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do certain things that are bad for me if they are fun	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People can count on me to keep on schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting up in the morning is hard for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have trouble saying no	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I change my mind fairly often	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I blurt out whatever is on my mind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People would describe me as impulsive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I refuse things that are bad for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I spend too much money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Not at all</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Very Much</i> <b>5</b>
I keep everything neat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am self indulgent at times	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I had more self-discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am reliable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get carried away by my feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do many things on the spur of the moment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't keep secrets very well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People would say that I have iron self-discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have worked or studied all night at the last minute	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm not easily discouraged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'd be better off if I stopped to think before acting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I engage in healthy practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I eat healthy foods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pleasure and fun sometimes keep me from getting work done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have trouble concentrating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to work effectively toward long term goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Not at all</i>				<i>Very Much</i>
Sometimes I can't stop myself from doing something, even if I know it is wrong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often act without thinking through all the alternatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I lose my temper too easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often interrupt people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sometimes drink or use drugs to excess	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am always on time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know how I want to be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have high standards and try to live up to them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a hard time setting goals for myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When my goals affect others, I can discuss how appropriate the goals are, with those who may be affected	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I call on others for help when I need it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If things go wrong, I tend to feel powerless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can come up with lots of ways to change, but it's hard for me to decide which one to use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have trouble making my mind up about things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When things are not going so well, I can usually think of something I can do to make it better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Not at all</i>				<i>Very Much</i>
I don't give up easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate number on the scale: 1,2,3,4,or 5. when you have decided on your answer, please colour the corresponding letter.

**READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can.**

*1 = Does not describe me well; 2 = Describes me a little; 3 = Describes me somewhat well; 4 = Describes me well; 5 = Describes me very well*

	Not Well 1	2	3	4	Very Well 5
I often have tender, concerned feelings for people less fortunate than me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sometimes find it difficult to see things from the "other guy's" point of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes I don't feel very sorry for other people when they are having problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to look at everybody's side of a disagreement before I make a decision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see someone being taken advantage of, I feel kind of protective towards them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sometimes try to understand my friends better by imagining how things look from their perspective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other people's misfortunes do not usually disturb me a great deal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I'm sure I'm right about something, I don't waste much time listening to other people's arguments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see someone being treated unfairly, I sometimes don't feel very much pity for them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am often quite touched by things that I see happen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Not Well</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Very Well</i> <b>5</b>
I believe that there are two sides to every question and try to look at them both	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would describe myself as a pretty soft-hearted person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm upset at someone, I usually try to "put myself in his shoes" for a while	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Before criticizing somebody, I try to imagine how I would feel if I were in their place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**For each action, refer to the rating scale below and colour the number which best describes you:**

*1 = I'm poor at this; I'd feel so uncomfortable and unable to handle this situation that I would avoid it if possible*

*2 = I'm only fair at this, I'd feel uncomfortable and would have lots of difficulty handling this situation*

*3 = I'm Ok at this, I'd feel somewhat uncomfortable and have some difficulty handling this situation*

*4 = I'm good at this, I'd feel quite comfortable and able to handle this situation*

*5 – I'm very/extremely good at this, I'd feel very comfortable and could handle this situation very well*

	Poor good 1	2	OK 3	4	Very 5
Asking or suggesting to someone new that you get together and do something, e.g. go out together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telling a companion that you don't like a certain way he or she has been treating you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Revealing something intimate about yourself while talking with someone you are just getting to know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping a close companion work through his or her thoughts and feelings about a major life decision, e.g. a career choice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being able to admit that you might be wrong when a disagreement with a close companion begins to build into a serious fight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finding and suggesting things to do with new people whom you find interesting and attractive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saying no when a date/acquaintance asks you to do something you don't want to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Confiding in a new friend and letting him or her see your softer, more sensitive side	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Poor good</i> <b>1</b>	<b>2</b>	<i>OK</i> <b>3</b>	<b>4</b>	<i>Very</i> <b>5</b>	
Being able to patiently and sensitively listen to a companion “let off steam” about outside problems he or she is having	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Being able to put begrudging (resentful) feelings aside when having a fight with a close companion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Carrying on conversations with someone new whom you think you might like to get to know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Turning down a request by a companion that is unreasonable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Telling a close companion things about yourself that you’re ashamed of		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping a close companion get to the heart of a problem he or she is experiencing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
When having a conflict with a close companion, really listening to his or her complaints and not trying to “read his or her mind”		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being an interesting and enjoyable person to be with when first getting to know people		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standing up for your rights when a companion is neglecting you or being inconsiderate		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Letting a new companion get to know the “real you”		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping a close companion cope with family or roommate problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Being able to take a companion’s perspective in a fight and really understand his or her point of view		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



	<i>Poor</i> <i>good</i> <b>1</b>	<b>2</b>	<i>OK</i> <b>3</b>	<b>4</b>	<i>Very</i> <b>5</b>
Introducing yourself to someone you might like to get to know (or date)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telling a date/acquaintance that he or she is doing something that embarrasses you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Letting down your protective outer shell and trusting a close companion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being a good and sensitive listener for a companion who is upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Refraining from saying things that might cause a disagreement to build into a big fight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Calling (on the phone) a new date/acquaintance to set up a time to get together and do something	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Confronting your close companion when he or she has broken a promise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telling a close companion about the things that secretly make you feel anxious or afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being able to say and do things to support a close companion when he or she is feeling down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being able to work through a specific problem with a companion without resorting to global accusations ("you always do that")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presenting good first impression to people you might like to become friends with (or date)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telling a companion that he or she has done something to hurt your feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<i>Poor good</i> <b>1</b>	<b>2</b>	<i>OK</i> <b>3</b>	<b>4</b>	<i>Very</i> <b>5</b>
Telling a close companion how much you appreciate and care for him or her	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being able to show genuine empathic concern even when a companion's problem is uninteresting to you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When angry with a companion, being able to accept that he or she has a valid point of view even if you don't agree with that view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Going to parties or gatherings where you don't know people well in order to start up new relationships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telling a date/acquaintance that he or she has done something that made you angry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing how to move a conversation with a date/acquaintance beyond superficial talk to really get to know each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When a close companion needs help and support, being able to give advice in ways that are well received	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not exploding at a close companion (even when it is justified) in order to avoid a damaging conflict	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Please colour the circle that indicates the most true statement for you.**

When something unforeseen happens	I always find a solution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I often feel bewildered
My personal problems	are unsolvable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I know how to solve
My abilities	I strongly believe in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I am uncertain about
My judgements and decisions	I often doubt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I trust completely
In difficult periods I have a tendency to view	everything gloomy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	find something good that helps me thrive
Events in my life that I cannot influence	I manage to come to terms with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	are a constant source of worry/concern
My plans for the future are	difficult to accomplish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	possible to accomplish
My future goals	I know how to accomplish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I am unsure how to accomplish
I feel that my future looks	very promising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	uncertain
My goals for the future are	unclear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	well thought through
I am at my best when I	have a clear goal to strive for	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	can take one day at a time
When I start on new things/projects	I rarely plan ahead, just get on with it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I prefer to have a thorough plan

I am good at	organising my time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	wasting my time
Rules and regular routines	are absent in my life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	simplify my everyday life
I enjoy being	together with other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	by myself
To be flexible in social settings	is not important to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	is really important to me
New friendships are something	I make easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I have difficulty making
Meeting new people is	difficult for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	something I am good at
When I am with others	I easily laugh	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I seldom laugh
For me, thinking of good topics for conversation is	Difficult	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	easy
My family's understanding of what is important in life is	quite different than mine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very similar to mine
I feel	very happy with my family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very unhappy with my family
My family is characterised by	disconnection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	healthy coherence
In difficult periods my family	keeps a positive outlook on the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	views the future as gloomy

Facing other people, our family acts	unsupportive of one another	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	loyal towards one another
In my family we like to	do things on our own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	do things together
I can discuss personal issues with	no one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	friends/family members
Those who are good at encouraging me are	some close friends/family members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	nowhere
The bonds among my friends are	weak	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	strong
When a family member experiences a crisis/emergency	I am informed right away	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	it takes quite a while before I am told
I get support from	friends/family members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	no one
When needed, I have	no one who can help me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	always someone who can help me
My close friends/family members	appreciate my qualities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	dislike my qualities

**Please read each statement and colour the circle that indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on each statement**

*0 = Did not apply to me at all; 1 = Applied to me to some degree, or some of the time;*

*2 = Applied to me to a considerable degree, or a good part of time; 3 = Applied to me very much, or most of the time*

	<i>Not at all</i>			<i>Most of the time</i>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
I found it hard to wind down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware of dryness of my mouth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I couldn't seem to experience any positive feeling at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficult to work up the initiative to do things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tended to over-react to situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I experienced trembling (e.g. in the hands)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I was using a lot of nervous energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was worried about situations in which I might panic and make a fool of myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I had nothing to look forward to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I found myself getting agitated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficult to relax	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<i>Not</i>			<i>Most</i>
	<i>at all</i>			<i>of the time</i>
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
I felt down-hearted and blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was intolerant of anything that kept me from getting on with what I was doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I was close to panic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was unable to become enthusiastic about anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I wasn't worth much as a person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that I was rather touchy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was aware of the action of my heart in the absence of physical exertion ( e.g. sense of heart rate increase, missing a beat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt scared without any good reason	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that life was meaningless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Using the scale provided, please indicate how much each of the following statements reflects how you typically are:**  
*1 = Not at all to 5 = Very Much*

	<i>Not at all</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Very Much</i> <b>5</b>
As soon as I see a problem or challenge, I start looking for possible solutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can come up with lots of solutions to problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can think abstractly to solve problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident I can accomplish the goals I set for myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at starting new activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to put off doing anything about problems in the hope that they will get better by themselves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I intend to do something I usually do it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually keep track of my progress toward my goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I make a resolution to change something, I pay a lot of attention to how I'm doing it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As soon as I see things aren't going right I want to do something about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



I don't notice the effects of my actions until it is too late	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I persist with plans even in the face of difficulties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Little problems or distractions can throw me off course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<i>Not at all</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Very Much</i> <b>5</b>
I tend to give up if others don't appreciate my efforts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to get really involved in things that I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I am distracted or interrupted, I don't have any problem resuming my concentration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can see and focus attention on the most relevant problem in a situation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get easily distracted from my plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I become impatient when I have to wait for something	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can focus on a task for a long time if necessary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It's hard for me to notice when I have had enough (food, drink)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am the kind of person who tends to think first before saying or doing anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to keep doing the same thing even when it doesn't work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

With feedback from others, I can adjust my strategies or plans to suit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to fall back on what is comfortable rather than trying new ways of doing things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually quickly learn from my mistakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<i>Not at all</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<i>Very Much</i> <b>5</b>
I usually look at all sides of a situation, even if I have a preference for one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have trouble making plans to reach my goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at planning and thinking ahead	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I finish one activity or project before starting another	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am steady and planful, rather than unpredictable and impulsive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can organise myself to complete tasks according to plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at managing myself to achieve good outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If something arouses my feelings too much, I can calm myself to continue with what I am doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can control my thoughts and feelings from distracting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

me from the task at hand

My emotions change a lot, happy one minute, sad or angry the next

☐ ☐ ☐ ☐ ☐

My reactions are usually expressed in a manner appropriate to the situation

☐ ☐ ☐ ☐ ☐

I don't take out my feelings on the wrong people

☐ ☐ ☐ ☐ ☐

I express my feelings appropriately

☐ ☐ ☐ ☐ ☐

If I am happy with someone, I can show them

☐ ☐ ☐ ☐ ☐

**Please rate the truth of each statement as it applies to you. Use the following scale to make your choice**

*1 = never true; 2 = very seldom; 3 = seldom true; 4 = sometimes; 5 = frequently; 6 = almost always; 7 = always true*

	<i>never true</i> <b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<i>always true</i> <b>7</b>
I would describe myself as someone who actively seeks as much information as I can in a new situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am participating in an activity, I tend to get so involved that I lose track of time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently find myself looking for new opportunities to grow as a person (e.g. information, people, resources)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am <i>not</i> the type of person who probes deeply into new situations or things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am actively interested in something, it takes a great deal to interrupt me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My friends would describe my as “extremely intense” when in the middle of doing something	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Everywhere I go, I am out looking for new things or experiences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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*What do you think are the top three personal strengths needed to lead a happy, successful life?*

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*What do you consider are your three greatest strengths?*

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**Thank you very much for your help**

Some of this questionnaire may have caused you to think about things in a new way, or may have reminded you of things that have happened in the past which may have upset you. If this has happened we would encourage you to talk to someone about it. You may want to talk to your partner, friends or another family member. If you would like to talk to the researcher you can make an appointment yourself by writing your name in the box below and we will arrange the appointment for you.

**I would like someone to contact me:**

Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

## Appendix B

Standardized regression coefficients (Beta) for significant variables explaining unique variance when Franklin's structural hierarchy is preserved

	Resilience	Happiness	Relationship satisfaction	Life satisfaction	Depression	Anxiety	Stress
H Pathways						-.16*	-.16*
H Agency	.22***	.44***	.41***	.54***			
PF Action	.13*				-.20**	-.21**	
PF Willingness							
Acceptance			-.15*	-.14*			
C Absorption							
Self esteem	.22***	.21**		.22**	-.34***	-.31***	-.22**
Self control							
SC Isolation	.13*	.29**	.41***	.18*	-.17*		
SC judgement		-.22**					
SC Overidentificat						-.22*	-.35***
Perspective taking						-.19**	
IC Initiation	.22***						
IC Disclosure		.16*	.18*				
IC Emotional support							
IC Conflict management						.18*	
% Variance explained	67.8	59.3	43.2	57.6	63.2	44.9	52.6

\*p<.05 \*\*p<.01 \*\*\*p<.001

## Appendix C

Dear Sir/Madam,

This email is to confirm that the following ethics application/s cited below received final approval from the Macquarie University Human Research Ethics Committee:

**Chief Investigator:** Pauline Sampson

**Ref:** HE03NOV2006-D04911

**Date Approved:** 30/11/2006

**Title:** "Predicted pathways to resilience and successful living; hope, compassion and regulation"

Please do not hesitate to contact me if you have any questions.

Yours sincerely,

Dr Karolyn White  
Director, Research Ethics  
Chair, Macquarie University Human Research Ethics Committee

--

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